

**From:** [REDACTED]  
**To:** [Metrowest1](#)  
**Subject:** TR040011 Portishead Branch Line (MetroWest Phase 1)  
**Date:** 18 November 2020 21:17:40  
**Attachments:** [DCO submission Ref 20025232.docx](#)  
[Summary Ref 20025232.docx](#)

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Dear Sir/Madam,

please find attached my submission (5,860 words) to the Planning Inspector about the application for DCO for the above. A summary is also attached (497 words).

If you have any questions please email [REDACTED] or telephone [REDACTED]

Yours faithfully,

Barry Cash

Portishead Busway Campaign

**Ref:20025232** by Barry Cash

## **TR040011 Portishead Branch Line (MetroWest Phase 1)**

### **Application by North Somerset District Council for an Order Granting Development Consent**

#### **Portishead Busway campaign: Response to Planning Inspector**

We submit that the application for a DCO should be denied because:

1. The scheme is poor value for the taxpayer.
2. Reopening the railway does not offer the best service to the commuters of Portishead and Pill.
3. The proposal does not comply with the Government's National Policy statements.
4. It is not the best option for reducing fuel use and greenhouse gas emissions.

We believe that the Portishead Busway proposal provides a far better solution. This is for a commuter service from Portishead to Bristol during the morning rush hour and from Bristol to Portishead during the afternoon/evening rush hour.

#### **Advantages of a busway:**

1. It would be cheaper than a railway. Current estimates for re-opening the railway are: £116m for one train per hour, and £175m for two trains per hour. Rough calculations show a busway could be created for about £45m.
2. A busway could provide a more extensive route than the railway. For example, the route could start at the far end of Portishead and travel into and beyond Bristol centre.
3. A busway will not interfere with the movement of freight trains (currently only ten per week).
4. A busway can be installed without interrupting freight trains or modifying the railway tracks.
5. A busway can provide a faster service than that provided by trains.
6. While the official scheme provides only one train an hour, a busway could provide greater frequency.
7. It would be possible to adjoin an off-road cycle track 4km shorter than present route.

#### **The problem**

During the morning rush hour a large number of people commute from Portishead and Pill to work in Bristol. The road system is inadequate for the amount of traffic. In the evening rush hour the roads are unable to cope with the numbers returning home. The roads and bus service are able to cope with the off-peak demand.

#### **Using STRAIL to provide a commuter service**

Strail is a system of thick interlocking panels that fit between and beside railway lines; it is manufactured from virgin and recycled rubber. Strail is in use at 30,000 locations on five continents, providing level-crossings for road traffic to drive across railways. The system has been in use for forty years.

Our suggestion is to infill the railway line with strail panels, and run buses along the route. We estimate that this could be done for about £45m, but that doesn't include the cost of buses, administration or project management.

This would offer a much better service than trains since, unlike trains, buses would not be limited to starting and finishing at a station. Buses could start at the far end of Portishead and travel along Down Road or Nore Road, picking up passengers along the way.

Buses would then travel to Bristol and re-join the road network at Cumberland Basin. As part of Metrobus, there is now a bus lane along Cumberland Road. It would also be possible for the buses to join the 52 km of the new Metrobus network at this point so as to provide an integrated system; this would take buses to Temple Meads railway station, without going through Parson Street, Bedminster.

The train scheme would be fine for commuters who wish to catch a train (and can afford it). However, the great majority of commuters want to access any number of other locations around the city. After stopping at Temple meads, buses could continue to Cabot Circus and on to the bus station for those who want to travel elsewhere (and cannot afford trains); then they could stop at the BRI and the University, both large employers. Finally, they could descend Park Street to reach the centre.

Returning buses could travel back to Portishead on the A369, ready for another trip. The afternoon service would reverse, with buses travelling back from Bristol to Portishead along the rail route.

Buses would have very little impact on the existing infrastructure, and offer a much more flexible service. The current proposal is for only one train per hour. At best that means only two trains would be available for most commuters - a total of 540 seats. The docks freight trains, at present two a day, could continue to use the railway when the buses are not running. Strail panels are easily removed and replaced if it becomes necessary to repair the railway line.

There is also the option to provide a cycle path alongside the line. A cycle path to Bristol already exists but this one would be 4km shorter. The estimate for this is £263,000, although that does not include a fence to segregate it from railway line.

At no time would buses and trains share the same track. On weekdays between 7am and 10am, and between 4pm and 7pm the line would be a bus-only route. Outside those times, it would be a train-only route.

### **Criticisms of the busway: A response**

*The Office of Rail and Road (ORR) do not currently approve the use of buses on railways except at level crossings. It seems very difficult to contemplate how a safety case for running public buses on a freight railway through the Avon Gorge (and including through several tunnels) would be acceptable in any safety case that might be put forward.*

Response: Regulations are not written on tablets of stone: change them. Alternatively, since fitting Strail panels and running buses will not require any alteration to the structure of the railway or its associated equipment, the regulations can continue to apply - but only on weekdays, outside the hours of 7-10am and 4-7pm. During those hours it must be regulated as a busway, with the provision that nothing must be done to infringe the rules for running trains at all other times.

*Given that the standard gauge for railways in this country is 1.435m and the standard width of a concrete railway sleeper is 2.6m (but their size and material varies), the tyres of buses would travel over top of the ends of the railway sleepers, given the standard width of a bus axle is 2.4m (outer edge). This raises a number of technical issues, including ride comfort, load bearing and kerb guidance.*

Response: Outer panels span 591mm out from rail head (option for bigger or smaller, but would be bespoke therefore probably more expensive) which means decking coverage would be approximately 1.38m out from the centre line of the track (or approximately 2.76m overall). This would be wide enough for a bus with an axle of approximately 2.4m (outer edge) and a single tyre on each end of the axle.

*Railway sleepers are generally spaced between 0.6m and 0.8m apart (this spacing is less on radius's and transitions). The ballast in between sleepers is not uniformly level with the top*

*of the sleepers, and would cause tyre to sleeper impact at speed, resulting in extremely poor ride quality for the occupants of the bus and high levels of wearing to critical suspension components.*

Response: InnoSTRAIL is sleeper-spacing independent. Sleeper-spacing is not important as long as it is not more than 750mm centre to centre.

*On the Portbury Freight Line there are a lot steel sleepers which are not flat like concrete sleepers, but curve down at each end. It would not be technically possible to contain ballast uniformly level with the top of sleeper without some form of ballast restraint (or in other words a kerb) and without replacing all the existing steel sleepers with concrete sleepers.*

Response: InnoSTRAIL can be supplied to suit most sleeper types used in the UK, including steel sleepers. As long as the track ballast is level with the tops of the sleepers, the relatively small supporting surface of the steel sleeper is fine for innoSTRAIL.

*With the whole of the track formation covered with foam mats except for the top of the track, for the entire 9 kilometres of railway, it would not be possible for the safety critical routine inspections of track formation to be undertaken, nor for easy access to the railway for routine maintenance.*

Response: If only the outer panels are installed, it will still be possible to inspect all the track components visible in the 4 foot (between the running rails) since that space would not be covered by panels. It is true that panels would have to be removed from the rails sufficiently, or may need to be completely removed, if an inspection is required to the outside of the rail, or parts of a sleeper, rail fastenings, etc.

*Sleepers are not designed to take a load bearing at the very ends of the sleeper and this would likely to lead to the failure of sleepers.*

Response: Strail supply level crossing decking all over the UK, often for very busy crossings; the panels are supported by the sleepers and track ballast, without issues such as sleepers failing at their ends.

*With the sleepers covered by the foam mats this would cause an impediment for the inspection of sleepers which are a safety critical railway component.*

Response: If only the outer panels are installed, it will still be possible to inspect all the track components visible in the four feet space between the running rails, since that space would not be covered with panels. It is true that if an inspection is required of the outside of a rail or of parts of a sleeper, rail fastenings, etc., that are only visible from the outside of the rail, the panels would need to be moved away from the rails sufficiently, or may need to be completely removed.

*Kerb guidance would be required for two main reasons:*

- a) a bus driver could not safely steer a standard full sized bus which has axle width of 2.4m, on an alignment that is only 2.6m in width, and*
- b) Some form ballast restraint would be required to maintain the ballast level with the top of the sleepers.*

Response: Provided the panels are firm against the rail, innoSTRAIL does not require kerbstones, but it may be that the means of guiding the bus does require kerbstones. Kerb guidance is not part of the innoSTRAIL system, but as suggested, the buses could perhaps be fitted with guide wheels that use the rails as the guidance system (like a road rail vehicle). Surely busway and buses could be fitted with an electronic sensor system ( perhaps AI enabled, as with autonomous vehicles).

*Equipment is located at the side of and within the track formation including axle counters, switches, power supplies, communication cables etc. This equipment is designed to safety critical technical standards and it would not be possible to relocate this equipment without breaching these technical standards.*

Response: If the outer panels only are installed, it would still be possible to inspect all the

track components visible in the four feet space between the running rails, since that area would not be covered by panels. It is true that if an inspection is required of the outside of the rail or the parts of the sleeper, rail fastenings, etc., that are only visible from the outside of the rail, the panels would need to be moved away from the rails sufficiently, or may need to be completely removed.

*In respect of installing concrete kerbs on the top of ballast, the depth of the ballast from top ballast to bottom ballast is usually over 1m. Consequently, in order to ensure no movement of the kerb it would be necessary to install a kerb foundation up to 1m in depth either side of the track formation for the entire 9 kilometres of railway. This would result in very significant cost.*

Response: InnoSTRAIL panels do not require 1m depth, but maybe that may be a requirement for any guidance walls. The current plan costs £116m for one train an hour, and £171m for two trains an hour. That is also a very significant cost.

*Operating a single track railway with mixed vehicle types ranging from freight trains (up to 2300 tonnes) with buses (of approx. 18 tonnes) could have very serious consequences in the event a signalling system failure or human error resulting in a collision of vehicles.*

Response: It is not proposed that buses and trains should share the same track at the same time. It is inconceivable that in the second decade of the 21st century we could not devise a fail-safe system to ensure that buses and trains are never on the track at the same time.

*Buses would have to operate under railway signal control while on the railway. This would entail significant additional cost and regulatory approval, including a need to install GSMR communication equipment into the cab of every bus (as is required for every train) in order to have direct communications between the driver and the regional signal control centre.*

Response: We regard this as essential.

*MetroWest Phase 1 has compelling strategic and economic benefits along with a sound management, commercial and finance case. The key benefits of the project in summary include:*

*Value for Money: the project will provide over £3 of economic benefits for every £1 invested to deliver the project. This places the project in the 'high value for money' category used by the Department for Transport in its evaluation of transport investment proposals.*

*Modal Shift: Reduction of 580 car trips per day in the opening year, increasing to 890 less car trips per day by 2036.*

*Job Creation: 514 net new direct permanent jobs + temporary jobs during construction.*

*Gross Value Added (GVA) to the economy: £31.87M PA in the opening year, totalling £271M discounted GVA during the first 10 years. Plus a further £59.27M during construction.*

Response: A busway is more than capable of providing those benefits.

## **Passenger Demand**

From document 8.4 Outline business case, Part 2, p 154:

Three car class 165/6 trains, approximately 270 seats

Train frequency 18 each way but 10 each way on Sundays

$18 \times 2 \times 6 + 20 = 236$  trains per week

$236 \times 51 = 12,036$  trains per annum

$12,036 \times 270 = 3,249,720$  seats per annum.

From document 8.4 outline business case part 3 page 147 Table 3.1

Annual totals for two way journeys

Initial 2021	From Portishead	321,014
	From Pill	<u>53,511</u>
	Total	<u>374,525</u>

$374,525 \times 2 = 749,050$  occupied seats = 23% occupancy

In 2036	From Portishead	433,529
	From Pill	<u>72,266</u>
	Total	505,795

$505,795 \times 2 = 1,011,590$  occupied seats = 31% occupancy

This means that even after fifteen years, 69% of the seats will not be occupied.

Outline Business Case, part 3, p 158, Figures 3.9, 3.10, 3.11, and 3.12 show that significant demand occurs between 7am and 10am from Portishead to Bristol, and between 4pm and 7pm Bristol to Portishead (in both 2021 and 2036). Outside of these times, the trains will not carry as many passengers in one hour as would fill one bus.

However, page 3-12 of [www.metrowestphase1.files.wordpress.com/2017/12/appendix-2-1-forecasting-report.pdf](http://www.metrowestphase1.files.wordpress.com/2017/12/appendix-2-1-forecasting-report.pdf) Figures 3-9 and 3-11 tell a different story.

These show 34 departures (Portishead and Bristol TM) each weekday, initially carrying a total of about 1,380 passengers. With 34 departures and 270 seats per train, there would be a total of 9,180 seats per day. Hence, the average 'busy weekday' train will run with only 15% of the seats taken, i.e., 85% empty. Since there are to be 34 departures on Saturdays and 20 on Sundays, over a full week the average number of seats occupied will surely work out even lower - perhaps 12 or 13% of capacity.

Page 3-10 contains a further puzzle. Consider the third bullet point:

"Maximum train load for the Portishead line service is assumed to be between Bristol Temple Meads and Bedminster, including all demand identified for Portishead and Pill stations (by direction) and 50% of additional demand generated at Bedminster and Pill."

It appears that the demand at Pill is counted and then 50% is counted again.

We have been unable to ascertain what the projected passenger demand for the trains will be.

The recent IPCC report once again highlighted the need to reduce the use of fossil fuels. When all fossil fuel use is included, a full bus is by far the most efficient and least polluting form of transport. (Chester MV & Horvath, A (2009) Environmental assessment of passenger transportation should include infrastructure and supply chains. *Environmental Research Letters* 4 2) However, a bus that is almost empty is the worst. This is a good reason to only run a busway service during the rush hours.

The DCO application states that "*Consent for the project is sought on the basis of derogation in article 6(4) of the Habitats directive, namely that there is no alternative to the DCO scheme, there are imperative reasons of overriding public interest for the DCO scheme*".

This is incorrect. There is an alternative scheme: The Portishead Busway Proposal.

In his letter of support for the train scheme, WECA Mayor Tim Bowles talked of 'ultimately helping us meet our ambition of a net zero carbon transport network.'

That is not correct. It is not a carbon neutral solution to run diesel powered trains, with no prospect of electrification because of the tunnels. Diesel buses could be changed to run on lithium battery, LNG, hydrogen - or whatever else becomes available in the future.

Tim Bowles further claims: 'As with Phase 1, this will increase access to rail services for

significant numbers of people, enabling more journeys to be taken sustainably.’

Not correct. Peak hour buses are far more sustainable than trains; at present they are the best in terms of fuel use and emissions produced. Buses from the Portishead Busway could link to the new £230m, 52.5km Metrobus routes at Cumberland basin, so as to provide far more sustainable transport across Bristol.

What is the point of running a 120 tonne train up and down this line when there are not enough passengers to fill one carriage, and there is already a bus service? Will these passengers be taken from the buses already in service? There are four bus services between Portishead and Bristol: X3, X3a, X4 and X5. If they lose passengers to the train they may become unviable, and cease. Since they call at more places than the train, this would seriously reduce the public transport options available in the Portishead to Bristol corridor.

What is the point of spending £116m to run trains all day only to worsen public transport? A busway to along the rail line, between 7am and 10am towards Bristol, and between 4pm and 7pm towards Portishead makes much better financial and environmental sense, as well as giving a far superior service to the public.

When the consultation was carried out, in 2017, the Introduction stated: ‘Consideration of alternatives was therefore largely restricted to the frequency of the service and specific elements of the NSIP and its associated development.’ As far as we can tell, this also applied to all the previous consultations.

But that is entirely the wrong approach. It began with the romantic ideal of re-opening the Portishead railway, and then progressed to ‘How can we justify this to the public?’ Whereas, it should have started with the problem that required solving, i.e. ‘How can we make it easier for people to commute between Portishead and Bristol?’

National Policy Statement for National Networks (2014), p 9 states:

*The Government will deliver national networks that meet the country’s long-term needs, supporting a prosperous and competitive economy and improving overall quality of life, as part of a wider transport system. This means:*

*Networks with the capacity and connectivity and resilience to support national and local economic activity and facilitate growth and create jobs;*

*networks which support and improve journey quality, reliability and safety;*

*networks which support the delivery of environmental goals and the move to a low carbon economy;*

*networks which join up our communities and link effectively to each other.*

A Portishead busway would achieve these aims far more effectively than reopening the railway line.

NPS NN, p 25, section 3.6

*Transport will play an important part in meeting the Government's legally binding carbon targets and other environmental targets. As part of this there is a need to shift to greener technologies and fuels, and to promote lower carbon transport choices.*

p 25, section 3.6

*As technology develops, ultra-low emission vehicles (ULEVs), including pure electric vehicles, plug-in hybrids and fuel cell electric vehicles, will play an increasing role in the way we travel. These vehicles are now starting to come onto the market in significant numbers, and in the coming decade we will move towards the mass market roll-out of ULEVs. The Government is committed to supporting the switch to the latest ultralow emission vehicles.*

It will be far easier to change the fuel used by buses than to replace diesel trains.

p 35, section 4.27

*All projects should be subject to an options appraisal. The appraisal should consider viable modal alternatives and may also consider other options (in light of the paragraphs 3.23 to 3.27 of this NPS). Where projects have been subject to full options appraisal in achieving their status within Road or Rail Investment Strategies or other appropriate policies or investment plans, option testing need not be considered by the examining authority or the decision maker. For national road and rail schemes, proportionate option consideration of alternatives will have been undertaken as part of the investment decision making process. It is not necessary for the Examining Authority and the decision maker to reconsider this process, but they should be satisfied that this assessment has been undertaken.*

We can find no evidence that alternatives to rail were ever considered. For example, improvements to roads to facilitate buses (bus lanes, etc.), road-charging for cars, laying Strail to make a busway, Skytran (the NASA offshoot), ULTra prt (by the late Professor Martin Lowson of Bristol University), or simply fitting railway wheels as well as road wheels to buses.

21 years and £21m were spent on this project. Not 21 minutes or 21 pence have been spent examining alternatives such as those mentioned above.

p 37 section 4.36

*Section 10(3)(a) of the Planning Act requires the Secretary of State to have regard to the desirability of mitigating, and adapting to, climate change in designating an NPS.*

We can find no evidence that this railway scheme was shown to be the best option for mitigating climate change, either during its construction or during its use. In fact, it will increase CO2 emissions by close to 1000 tonnes p.a.

Metrowest Phase 1: Outline Business Case Appendix 1.2, Option Assessment Report  
December 2017

We are unable to find anything in the option assessment report to indicate that any option other than reopening the railway was ever considered.

Section 6.2 Development of Objectives

*The five key transport goals set out in the West of England Joint Local Transport Plan are:*

*Reduce carbon emissions;*

*Support economic growth;*

*Promote accessibility;*

*Contribute to better safety, security and health;*

*Improve quality of life and a healthy natural environment.*

On all points, the Busway scheme is better at achieving these objectives.

Carbon emissions: the busway CO2 will be much lower both during construction and operation.

Section 6.3: *To support economic growth, through enhancing the transport links to the Temple Quarter Enterprise Zone (TQEZ) and into and across Bristol city centre, from the Portishead, Bath and Avonmouth and Severn Beach arterial corridors.*

Support economic growth: A busway would provide a far superior service than the trains because buses could start their journeys at the far end of Portishead and continue beyond Temple Meads; suggested extra stops are Cabot Circus, the Bus station, BRI hospital complex and Bristol University.

*To deliver a more resilient transport offer, providing more attractive and guaranteed (futureproofed) journey times for commuters, business and residents into and across Bristol*

Buses on a busway could join the 52.5km of Metrobus lanes to provide a direct service to other places of employment such as Emerson's Green, UWE, Cribbs Causeway or Aztec



West. Many people work in Avonmouth and live in Portishead. The Railway would only provide an extremely lengthy new commuter route to Avonmouth: from Portishead via Pill, Parson Street, Change at Temple Meads, Lawrence Hill, Stapleton Road, Montpelier, Redland, Clifton Down, Sea Mills, Shirehampton to Avonmouth or St. Andrews Road. By contrast, buses could use the busway from Portishead to Junction 19, cross the river on the M5 and reach Avonmouth at Junction 18/18A: far shorter, far quicker, far cheaper, far less fuel used, far fewer emissions.

*To improve accessibility to the rail network with new and reopened rail stations and reduce the cost (generalised cost) of travel for commuters, business and residents.*

During peak periods, a busway would do this better than an hourly train service. Off-peak, the applicant's prediction of passenger demand indicates there is little need for a busway.

*To make a positive contribution to social well-being, life opportunities and improving quality of life, across the three arterial corridors.*

This would be achieved as well - or better - by a busway as by reopening the railway, but at a far lower cost to the tax payer.

In addition, the MetroWest Phase 1 supporting objectives are:

*To contribute to reducing traffic congestion relative to a 'Do Minimum' scenario (as opposed to current levels of congestion) on the Portishead, Bath and Avonmouth, and Severn Beach arterial corridors.*

This would be achieved by a Portishead-Bristol busway.

*To contribute to enhancing the capacity of the local rail network, in terms of seats per hour in the AM and PM peak.*

A busway would not do this, but since 69% of the train seats will be empty - even by 2036 - why bother?

*To contribute to reducing the overall environmental impact of the transport network by enhancing the public transport offer, which in turn reduces car dependency.*

The busway does this at lower cost, with lower emissions and a superior service.

Section 6.4 Targets and benefits:

*The benefits of the project have been identified as:*

*Increase the local economy by generating £264M of Gross Value Added (GVA) in first ten years from opening) and creating 514 net new permanent jobs.*

A busway would be just as likely to achieve this, but it was not considered.

*Enhance rail capacity by delivering over 800 additional seats per hour for the local rail network, which in turn will extend the benefits of Network Rail's Western Route Modernisation Programme.*

A busway would not do this, but since 69% of the seats will be empty, even after 15 years, why bother?

*Deliver a reliable and more frequent public transport service, directly benefiting 180,000 people within 1km of 16 existing stations, with enhanced train service frequency.*

Linking to the busway in Bristol, a busway would serve Temple Meads and the wider rail network as efficiently (and perhaps more efficiently) as the proposed trains.

*Increase the number of people living within 30 minutes travel time of key employment areas, such as TQEZ.*

This is only needed during peak periods, and a busway is a better solution.

*Reduce highway congestion on arterial corridors, including A369 between Portishead and Bristol, significantly improving network resilience.*

This is exactly what a busway would do.

*Provide competitive journey times from Portishead and Pill to Bristol Temple Meads (around 23 minutes).*

This aspiration fails to consider that it takes time for commuters to get to and from their

stations (and from BTM to their final destinations). A busway would be more competitive because, in Portishead, the buses would pick up and drop off commuters nearer to the start and end-points of their commutes before proceeding to the busway. A busway would provide a more frequent service, and would not have to detour via Parsons Street; another £55m would be needed to provide two trains an hour.

*Improve accessibility to sites for new homes and employment development in proximity to the rail corridors and bring an additional 50,000+ people within the immediate catchment of the rail network with new stations at Portishead and Pill.*

During peak periods, the busway would do this as well, or better. The roads can cope with the off-peak traffic.

*Reduce overall environmental impact, resulting in improved air quality, on key arterial highway routes.*

This is another win for the busway since it would only operate during peak demand. *Provide attractive mode choice and capacity for journeys to work (alternatives to single occupancy car-based travel) addressing long-term car dependency.*

This is better achieved by a busway because buses can start at the far end of Portishead, thereby avoiding the need to travel to the station, while in Bristol they can continue to major sites of employment such as Cabot Circus, the BRI Hospital complex and Bristol University. A busway would also link to the bus and coach station. Unlike the railway, a busway could also provide a direct service to places such as Cribbs Causeway and Aztec West, by buses coming off the busway and onto the M5 north at Junction 19, and to Emerson's Green via Bristol Metrobus routes.

*Provide wide ranging social/health benefits*

*Wider Scheme Outputs:*

*Is expected to provide very high value for money with a Benefit to Cost Ratio of 3.48 with wider economic impacts, giving £3.48 of quantified benefits for every £1 invested to implement the scheme.*

*Is forecast to generate a revenue surplus every year from year 6 onwards.*

*Will support the delivery of the 105,000 new homes and 82,500 new jobs identified in the WoE Joint Transport Study and WoE Joint Spatial Plan.*

It is very likely that these aims could be achieved as well, or better, by a busway. However, no attempt was made any to evaluate the possibility.

### 7.3 Geographical Extent of Current and Future Transport Problems

*Slow and unreliable journey times (particularly on the A4, A369/M5 and routes into and within Bristol city).*

*Commuting from Portishead to Bristol city centre, under typical morning peak hour traffic conditions, takes approximately 50 minutes. Bus journeys can take over an hour in peak periods, and are susceptible to delay. The lack of a rail link between Bristol and Portishead means people without access to a car face additional difficulties.*

*Within Bristol's central AQMA, 97 % of NO<sub>x</sub> emissions are from road traffic. CO<sub>2</sub> emissions are expected to rise 19 % by 2011, compared to 2004 levels. This AQMA extends approximately 1 km east of the Portbury Freight Line and includes part of the local railway network within the centre of Bristol. The AQMA has been declared for NO<sub>2</sub> (1-hour mean and annual mean objectives) and PM<sub>10</sub> (24-hour mean objective).*

A busway offers a much lower cost solution to these problems - especially if it were to run ecobuses (e.g., powered by renewable electric battery); it would also give a better service.

In 2001, The Portishead to Bristol Corridor Study Stage 2 examined three heavy rail options versus a light rail option and five bus options. The study concluded:

Bus versus heavy rail: it is not possible to achieve journey time between Portishead and

Bristol equal to rail options, but buses have a considerable advantage in respect of route and frequency enhancements and in 'penetration' of Portishead and Bristol.

This study is 19 years old. If it was done today the Busway proposal would achieve the 'penetration' of buses and a similar travel time as a railway and at lower cost.

The rail option would provide one train per hour for £116m. Expanding it to two trains per hour will require another £55m and a great deal of disruption to the service while extensive work is carried out on the route. Expanding the frequency of the busway will simply require buying more buses.

### **Letter of support from Managing Director of First West of England**

Dear Barry

Thank you so much for your fascinating letter of 9<sup>th</sup> February, which I read with great interest.

Would it surprise you to know that I was involved in a project that is strikingly similar to your proposal way back in the early 1990s? I was working for the Badgerline Group plc then and our scheme was called the "Avon Gorge Expressway".

At that time our proposition was to use the kerb-guided busway principal that much more recently was adopted for the m2 metrobus route between Cumberland Road and Long Ashton P & R. Like your proposal, this envisaged fitting the busway around the existing single track railway and using the highway system for off-peak and contra-flow movements. Your system is broadly similar in concept though the actual runway that you are envisaging would, I take it, not involve any material alteration to the buses themselves, which would be equally at home on the STRAIL as on the ordinary road.

So you will have gathered by now that I am really appreciative of the merits of your idea.

The challenge is that WECA is committed to heavy rail. Much of their upcoming planned investment is in the Metrorail project, of which the Portishead route is one of the flagships. Furthermore I am quite certain that every vested interest in the book would emerge to tell the world why a train is the only sensible solution to Portishead's problems – even though a legitimate concern is that an hourly train service is only going to scratch the surface of this opportunity.

So, much as I am delighted and even flattered (by virtue of the history) by your proposition, I cannot believe that it would prosper as an idea, as plans for the heavy rail scheme are so well-embedded. The objection will be that only trains can recruit people out of their cars (although I am not sure that this is actually true) even though your intriguing proposal is likely to be cheaper to create and to be considerably more cost-effective than anything which is going to be provided under current plans. Besides there is no precedent for this sort of joint use of a rail-based right-of-way – I know from the Rotherham tram-on-rail experience that even this joint use took a lot of doing. For this reason, and notwithstanding the above, we are supporting the Metrorail schemes, including Portishead.

Nice try, though.

Best wishes

James 13<sup>th</sup> March 2020

James Freeman

Managing Director

First West of England

**North Somerset Council Code of Conduct states:**

Use of financial resources

Employees must ensure that they use public funds entrusted to them in a responsible and lawful manner. They should strive to ensure value for money to the local community and to avoid legal challenge to the authority.

**The Civil Service code**

This includes the following:

You must carry out your fiduciary obligations responsibly (that is make sure public money and other resources are used properly and efficiently)

You must provide information and advice, including advice to ministers, on the basis of the evidence, and accurately present the options and facts

You must not ignore inconvenient facts or relevant considerations when providing advice or making decisions.

Have the Civil Servants who developed the railway proposal complied with these codes?

Ends



**From:** [REDACTED]  
**To:** [Metrowest1](#)  
**Subject:** TR040011 Portishead Branch Line (MetroWest Phase 1) Additional submission Ref:20025232  
**Date:** 21 November 2020 10:01:07  
**Attachments:** [Passenger forecast.odt](#)

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Dear Sir/Madam,

when I submitted my comments it was not clear what the passenger demand was predicted to be. North Somerset Council have now clarified the figures. The anticipated occupancy will be 11.5% initially in 2021 and 15.6% after 15 years. I attach my calculation. Please can this be attached to my submission?

Yours faithfully,

Barry Cash

Portishead Busway campaign

## Passenger demand – Portishead Railway Ref:20025232

From document 8.4 Outline business case part 2 Page 154.

Three car class 165/6 trains approximately 270 seats

Train frequency 18 each way but 10 each way on Sundays

$18 \times 2 \times 6 + 20 = 236$  trains per week

$236 \times 51 = 12,036$  trains per annum

$12,036 \times 270 = 3,249,720$  seats per annum

From document 8.4 outline business case part 3 page 147 Table 3.1

Annual totals for two way journeys

Initial 2021	From Portishead	321,014+	
	From Pill	<u>53,511</u>	
	Total	374,525	Occupied seats = 11.5% occupancy

In 2036	From Portishead	433,529+	
	From Pill	<u>72,266</u>	
	Total	505,795	Occupied seats = 15.6% occupancy

Figures 3.9, 3.10, 3.11, 3.12 on page 158 Outline business case part 3 shows that significant demand occurs during 7.00 to 10.00am from Portishead to Bristol and between 4.00 to 7.00pm Bristol to Portishead, both in 2021 and 2036. Outside of these times the trains will not have enough passengers to fill one bus an hour.

Spreading the £116m capital cost over 15 years works out at £17.57p per occupied seat or for a daily commute to Bristol and back £35.14p.

Is this value for the taxpayer?