NORMAN ROURKE PRYME

CONSTRUCTION CONSULTANTS
HIGHWAYS AND INFRASTRUCTURE
TRAFFIC AND TRANSPORTATION

Rebuttal Proof of Evidence of David Knight

LAND AT SODBURY ROAD, WICKWAR

APP/P0119/W/23/3323836

Bloor Homes

16 OCTOBER 2023

LAND AT SODBURY ROAD, WICKWAR

APP/P0119/W/23/3323836

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1 INTRODUCTION

1.1 Purpose of Evidence

1.1.1 This Rebuttal evidence has been prepared to address the evidence of Liz Fitzgerald and in particular Appendix 7, the review of NRP's bus modelling work by WSP. The WSP note is effectively in two parts as follows:

- A review of NRP's bus modelling work as set out in the 84/85 Alternative Bus Route Technical Note; and
- WSP's own cost and revenue calculations.

1.2 Overview of WSP Evidence

1.2.1 There are a number of methodological problems with the approach adopted by WSP in their report and it is informed by incorrect data interpretation.

1.2.2 The key problems are:

- Use of incorrect trip rates from the Transport Assessment;
- The rejection of locally calculated statistics; and
- Use of unevidenced assumptions in the WSP approach.

1.2.3 If the WSP methodology is corrected for its shortcomings, then a different result is obtained. Indeed, like our modelling, it shows a positive commercial viability for option 6.

1.3 Meeting with WSP

1.3.1 I requested a meeting with WSP to discuss the review they have undertaken. This was held on Thursday 12th October and was attended by Liz Fitzgerald, Julian Moss, Transport Planner at WSP, my colleagues Hadley Dickinson-Lovett and Chris Brooke and myself. The following points are agreed from discussions at the meeting:

- The use of Logit modelling and the PODARIS software;
- The validation of the PODARIS model;
- The resultant mode share increase from 3.3%-8.73%; and
- Option 6 is the best solution for the 84/85 service based on the options tested.

1.3.2 Option 6 was the only option considered by WSP, but there has been no suggested that, of the options tested, it provides the best solution for the 84/85 services. Indeed, the WSP note confirms that the route does provide a balance between being operationally efficient while maintaining good service coverage.

1.4 Structure of Rebuttal Proof of Evidence

1.4.1 This Rebuttal Proof of Evidence is set out as follows:

- Chapter 2 includes my comments on the Fitzgerald evidence where appropriate;
- Chapter 3 discusses the WSP review of the NRP bus modelling;
- Chapter 4 discusses my review of the WSP bus service calculations;
- Chapter 5 provides a summary and conclusions; and
- Chapter 6 is a statement of truth and declarations.

2 COMMENTS ON FITZGERALD EVIDENCE

2.1 Comments

2.1.1 This chapter provides my responses to Liz Fitzgerald's evidence where appropriate. I have not sought to repeat my position which is set out in my Proof of Evidence. I highlight the paragraph number from the evidence and its central point and respond accordingly.

2.1.2 Para 6.35 – no linked trips with shop. I disagree with this statement. It will be easy enough for residents of the proposed development and the recent developments to the east of Sodbury Road to walk or cycle to the High Street or school and link this with a visit to the shop.

2.1.3 Para 6.83 – Limited services, facilities, cannot support viable bus services. I disagree with this, there are services and a viable bus solution is possible to augment existing public transport opportunities.

2.1.4 Para 6.84 – The existing 84/85 service. It would be unattractive because of its low frequency and indirect route. That is why it needs redesigning. Stagecoach agreed it does in my discussions with their Planning Manager, consequently the testing of more viable options through Podaris.

2.1.5 Para 6.85 – Challenges for the Bus Market in the West of England . I agree that these challenges have existed for the bus industry recently, however they are being overcome. Bus patronage is growing post COVID. In recent discussions with Stagecoach I understand that this situation with driver shortages has improved. Inflation is falling and expected to continue as it is tackled by central government. My view is that services can be reviewed and redesigned to improve commercial viability.

2.1.6 Para 6.91 – DDRT is a trial. A very significant investment had been made in the Westlink DDRT giving it the best chance of success. It operates across the local area and I have observed it in Wickwar and being used.

2.1.7 Para 6.93 – Assertion bus support will cease. It is disappointing to see that SGC appear to have no confidence in the future of bus services in the area especially given the very significant financial support they are receiving from the Government.

2.1.8 The South Gloucestershire Liberal Democrats state in their 2023 manifesto, '*Work with the West of England Combined Authority to improve our bus network. We will investigate bus franchising to give greater public control of the network. We want greener, lower carbon buses and the introduction of Fairer Fare zones for Thornbury and Yate. We will build on our successful campaign for demand responsive transport by working with our communities and Town and Parish Councils to develop innovative solutions for isolated areas that have been deprived of regular bus services.*'

2.1.9 WECA have recently said that they are actively considering significant funds for bus improvements. They say of WESTlink, '*5.12 WESTlink has struggled with the national driver recruitment issue, with the number of vehicles on the road being an average of 70% of the 30 that were contracted. This figure has improved since late Summer and is now closer to the capacity. Patronage levels have grown significantly since launch, ranging from 179% in the southern zone, to over 300% in the northern zone, with the opportunity for further growth as the driver situation improves*.' (West of England Combined Authority Committee on Friday, 6th October, 2023). See Appendix DAK1 for details.

2.1.10 They also show across WECA they have anticipated spend of £57 million to assist bus services and the Appellant is contributing to that positive motion.

2.1.11 Para 6.96 – Neither the West of England Combined Authority (WECA) or Appellant contribution is good enough. I disagree with this assertion. The Appellant's contribution is one that will remove any uncertainty with regards to the delivery of a viable service and I question why the Council is requesting the contribution proposed by WECA if they do not think that it is sufficient?

2.1.12 Para 6.97 – WECA cost is September 2022 – it will now be higher and higher in the future. There are essentially two sides to commercial viability, the costs of running the service and the revenue from passengers. Both have to be considered in the operation of bus services and matched.

2.1.13 Para 6.98 – No evidence that a bus operator would run the proposed service. I think highly likely that operators would be interested in running a redesigned 84/85 service, given that we have shown it to generate a good profitable return in addition to the funding that the Appellant is willing to provide to further support such a service.

2.1.14 Para 6.99 – Stagecoach were not interested in running the 84/85. Stagecoach have been interested in running a more viable redesigned 84/85 bus service as demonstrated by my discussions with them on options for bus modelling.

2.1.15 Para 6.100 – Bus companies won't trial new services. This statement is untrue. I have known bus trials to take place.

2.1.16 Para 6.101 – Driver shortages is a problem. It has been a problem, but it is being addressed by the industry.

2.1.17 Para 6.103 – WSP Report. The WSP Report cannot be relied upon due to methodological problems and inconsistencies and use of incorrect data.

2.1.18 Para 6.104 – NRP Bus Modelling. The WSP Report conclusions are wrong. When reworked they support the results of the NRP modelling.

2.1.19 Para 6.105 – Existing service is tried and tested. The 84/85 was running with support, but my view is that it should be redesigned along the lines proposed.

2.1.20 Para 6.108 – No long term solution for delivering a bus service. I disagree with this assertion. Bus service improvements are always possible and deliverable.

2.1.21 Para 6.109 – Wickwar won't have a bus service at first occupation. Public Transport opportunities will exist at the proposed development including bus services and the proposed bus contribution will help to support them.

2.1.22 Para 6.110 – Disregard Travel Plan – no bus services. The Travel Plan encourages more sustainable travel across Public Transport, Cycling, Walking and more sustainable car use. Encouraging bus use is one aspect. Disregarding the Travel Plan is contrary to the NPPF and the difference it can make to increasing sustainable travel. I support the inclusion of the Travel Plan.

3 THE WSP REVIEW OF THE NRP BUS MODELLING

3.1 Introduction

3.1.1 This chapter discusses the WSP review of the NRP bus modelling set out in our Technical Note, 84/85 Alternative Bus Route Proposal. The review is included at Appendix 7 of the Proof of Evidence of Liz Fitzgerald. The review is addressed in the following sections:

- Proposed New Bus Service;
- Logit Modelling;
- Patronage Estimates;
- Ticket Pricing;

3.2 Proposed New Bus Service

3.2.1 The WSP note states that design of the route provides a balance between efficiency and coverage. As seen below:

'Of the options presented, Options 6 does indeed provide a balance between being operationally efficient while maintaining good service coverage.'

3.2.2 WSP do not question or reject the quality of the route choice.

3.3 Logit Modelling

3.3.1 WSP support the use of a Logit Model and its validation as seen below:

'Logit model are standard transport planning tools. In order to provide a faster and more proportionate model architecture, Podaris conflates some modes of travel (e.g. driving a car and travelling as a car passenger), so this validation is reasonable.'

'the actual percentage of commuting by bus is 3.9% (725 out of 18,518 trips). It is reasonable therefore for the model to indicate a 3.3% mode share for bus in the base model. This is higher than the 1.6% the Transport Assessment for the development assumes – this difference is reasonable, as the proposal for the amended bus route would also pick up passengers along the rest of the route where the current bus network enables more trips.'

3.3.2 WSP go on to doubt the results of the validated model as seen below:

'An increase in patronage of this level – more than doubling and approaching trebling – is extremely unusual in the UK public transport market. We suggest that a forecast increase of this magnitude requires unusual and strong evidence to support it.'

3.3.3 WSP do not go as far as to suggest it is incorrect. They do not propose a different mode share for bus travel, WSP use the bus travel mode share from the validated model in their own calculations.

3.4 Patronage Estimates

3.4.1 WSP compare the findings of the logit model to the expected improvements delivered by the West of England's Combined Authority (WECA) Bus Service Improvement Plan (BSIP). The BSIP targets a return to pre-Covid levels of bus travel then expect it grow by a further 24% by 2030. WSP state that elasticises of demand vary between 0.3 and 0.7 in the short term to 0.4 to 1.1 in the long term and that a 175% increase as identified in this proposal is unusually large.

3.4.2 The demand modelling was undertaken in Podaris using a Logit Model, elasticates of demand are included within logit. It is important to remember that the proposed service improvement is a redesign of the route therefore their point on elasticities is not relevant.

3.4.3 WSP question how the demand model was undertaken, stating that if no other bus routes was considered then it is likely to overestimate the demand for the 84/85 service. All services in the local area were loaded into the model, however only the 84/85 service was altered. This was confirmed to WSP at the meeting on the 12th October.

3.4.4 WSP question the method of growing the increase in demand by 10 to reach a weekly trip rate. They question the accuracy of this, siting 30% of jobs in South Gloucestershire are part time. Data is not available for the number days per week that people who work part time commute and, therefore, it was not considered.

3.4.5 It is considered that if bus patronage is to return to pre-covid levels through BSIP then ridership would resemble something similar to the pre-covid travel patterns which would resemble a pattern where people commuted five days per week.

3.4.6 The WSP technical note disputes that 17% of trips are for commuting purposes. The figure was sourced from the National Travel Survey Table NTS0403 average number of trips (trip rates) per person per year by trip purpose: England, from 2002 (excluding short walks) 2021. The results can be seen in Table 2.1 below:

Table 2.1: National Travel Survey Results

Trip Purpose	Percentage of Trips
Commuting	17.0%
Business	2.2%
Education	5.8%
Escort education	5.3%
Shopping	19.0%
Other escort	11.0%
Personal business	9.5%
Visiting friends at private home	11.1%
Visiting friends elsewhere	4.1%
Entertainment / public activity	5.4%
Sport: participate	1.8%
Holiday: base	1.1%
Day trip	6.6%

3.4.7 The National Travel Survey is a national survey that provides useful information from macro data collection. Due to its size, it can be considered a useful tool to understand travel habits and patterns. The information it provides has been used for both the NRP and WSP analysis. The National Travel Survey can be used where there is no local data available, such as information on journey purpose.

3.4.8 It is assumed that due to the size of the National Travel Survey, factors such as age, employment status and holidays accounted for within the above assessment of trip purposes.

3.4.9 The WSP report rejects the usage of the 5-59 population as it does not account for the economically inactive. This has been misinterpreted and is used to identify the segment of the population that is not eligible for free bus travel and therefore would be purchasing tickets. A trip rate for the whole population is applied to this figure not just those in employment or education.

3.5 Ticket Pricing

3.5.1 WSP dispute the NRP ticket pricing model for a number of reasons firstly they have reviewed against the existing prices including the £2 cap, which will be extended until December 2024. The price cap is expected to be removed before the opening of the development or commencement of the proposed service. This would result in ticket prices increasing for longer journeys similar to the pricing structure before the price cap.

3.5.2 WSP also reject the calculation on the grounds that it does not account for season tickets, this data is considered commercially sensitive by bus operators and is not available to the public, therefore it has not been speculated on. WSP do not propose a methodology of how to calculate this.

3.5.3 WSP have also claimed that the ticket calculation does not take into account concessionary fairs. The ticket price is only applied to the section of the population ages 5-59 to account for concessionary fairs.

3.6 Operating Costs

3.6.1 WSP consider the costs are overestimated and that costs for drivers and vehicles are included in the DfT bus statistics that are referenced. I agree with this statement

3.6.2 The cost of buses and drivers has been considered in addition for added rigour. This is our approach to bus modelling to provide a safety margin in our viability calculations.

4 REVIEW OF WSP BUS ASSESSMENT

4.1 Introduction

4.1.1 In their response to the NRP bus modelling assessment, WSP set out their own assessment of the expected patronage and profitability of the proposed bus service. This assessment followed a methodology that is entirely separate from the methodology used by NRP. The WSP methodology is built on information taken from the Transport Assessment that supported the planning application, data extracted from the validated Podaris Logit Model, census data, and the professional opinion of the author.

4.1.2 I do not agree with the methodological approach or its findings.

4.1.3 The methodology has been replicated to ensure that their findings were correct, where a number of mistakes were identified that resulted in incorrect predictions. There are also a number of decisions made in the methodology that do not follow logical sense, or have not been evidenced, therefore have been discounted, a breakdown of the WSP Methodology is set out below. A corrected methodology is also flowed simultaneously.

4.1.4 The discussion is subdivided into the following sections:

- Data;
- Demand for Bus Travel;
- Revenue;
- Operating Costs; and
- Sense Check.

4.1.5 The calculations are also set out in Appendix DAK2.

4.2 Data

4.2.1 The WSP methodology uses data from a variety of sources. WSP have analysed 2011 census data that calculates an average occupancy per dwellings as 2.5 residents, which would results in a population of 450 for the 180 dwellings of the proposed development.

4.2.2 The methodology also uses data extracted from the modelling software Podaris. The population along the proposed route is 6000 and the calculated share of population using the proposed bus route would be 8.73%.

4.2.3 It should also be noted that the same model calculated the population along the bus route aged between 5-59 as 4200. This represents the ticket purchasing population, that was not used in the WSP methodology, but will be referenced in the updated review.

4.2.4 The WSP methodology takes trip rates from the TRICS output associated with the Transport Assessment. The methodology uses the wrong data from the TRICS output, referencing the total daily trip rate as 4.878. This figure is the Total Vehicle trips, or the number of trips made by all vehicles. The total daily trip rate per person is quoted from the Total People trips and is 8.207. These trip rates are used to build the demand for bus travel, which result in very different results.

4.2.5 During the sense check, two methodologies will be followed, the WSP methodology, to demonstrate the same steps have been followed to calculate the demand of the proposed service as calculated in the WSP note, and the WSP (corrected) methodology, which provides the results that would have been presented had they used the correct trip rates.

4.3 Demand for Bus Travel

4.3.1 The WSP Methodology takes the daily trip rate of 4.878 per dwelling and calculates a daily trip rate per person, by dividing the trip rate per dwelling by the 2.5 residents per dwelling, arriving at 1.95 trips per person per day. As the people trips per dwelling, is 8.207 the daily trips per person is 3.28, as set out below:

- WSP Methodology – 1.95 daily trips per person
- WSP (corrected) Methodology – 3.28 daily trips per person

4.3.2 These were growthed from daily trip rate to weekly trip rates for the development, which are as follows

- WSP Methodology – 13.7 weekly trips per person
- WSP (corrected) Methodology – 23.0 weekly trips per person

4.3.3 From this point, WSP calculate a demand for bus travel by taking the 8.73% mode share by bus and applying it to the weekly trips per person. This results in a weekly bus trips per person below:

- WSP Methodology – 1.19 weekly bus trips per person
- WSP (corrected) Methodology – 2.01 weekly bus trips per person

4.3.4 WSP then multiplied the weekly bus trip rate up to an annual bus trip rate for the proposed development being 62 bus trips per person per year. The number of bus trips per person per year using the corrected methodology would be 104.

4.3.5 It is then claimed that the calculated trip rates are high, WSP reject their own calculations on bus patronage and use national statistics from the National Travel Survey of 32 bus trips per person per year for the rest of the route. This would suggest that WSP are of the view that the proposed development would generate almost twice as many bus trips as the population along the rest of the route.

4.3.6 As WSP reject their own localised calculation on bus usage and continue using a methodology based on the National Travel Survey, this note will continue calculating the NTS Methodology, the WSP Methodology and the WSP (corrected) Methodology.

4.3.7 The total patronage for the year is calculated by multiplying the annual bus trips per person by the total residents along the route, as taken from the NRP Podaris model, which is 6000. The results are:

- NTS 32 x 6000 = 192,000
- WSP 62 x 6000 = 372,000
- WSP (Corrected) 105 x 6000 = 630,000

4.4 Revenue

4.4.1 WSP reject the average ticket price identified by NRP as £2.32 identified using journey to work demand from the 2011 census for an average ticket price of £2 which they consider more appropriate for revenue calculations.

4.4.2 From this the expected revenue for the proposed development is calculated using the following steps.

4.4.3 WSP Methodology:

- 180 Houses with 2.5 average occupancy: 450 people
- Weekly bus trip rate of **1.19** per person: weekly bus trips – 536
- Weekly revenue (assuming average single fare of £2): £1,072
- Yearly revenue (assuming 50 weeks): £53,600

4.4.4 The WSP (corrected) methodology would result in an annual revenue from the proposed development of:

- 180 Houses with 2.5 average occupancy: 450 people
- Weekly bus trip rate of **2.01** per person: weekly bus trips – 905
- Weekly revenue (assuming average single fare of £2): £1,810
- Yearly revenue (assuming 50 weeks): £90,600

4.4.5 The WSP assessment goes on to state that:

4.4.6 'As the current service is not operated commercially (no bus company currently operating is prepared to run it in the expectation of generating a surplus), it is unlikely the current annual revenue is higher than £100,000 (based on our experience advising other local transport authorities and bus operating companies).'

4.4.7 This does not appear to make sense when compared to their own calculations on expected revenue from the proposed development. This is the opinion of WSP and is not based in evidence. The figure that the existing route cannot make more than £100,000 is the basis for their subsequent calculation.

4.4.8 The figure of £100,000 revenue is growthed from the existing revenue to the proposed revenue by multiplying the original figure by a factor of 2.62, which is identified as it is the growth factor between a 3.3% existing bus mode share to 8.73% future bus mode share. From this they calculate that the proposed bus service would generate £264,000 per annum. WSP then include the incorrectly calculated £53,600 from the proposed development to at an approximate revenue calculation of £320,000 per annum.

4.4.9 This is sense checked using a pre-covid national bus trip rate of 0.62 weekly bus trips (32 annually) per person that is calculated below:

- Population within catchment: 6000 people
- Weekly bus trip rate of 0.62 per person: weekly 3720 trips
- Weekly revenue (assuming average single fare of £2): £7,440
- Yearly revenue: £386,880

4.4.10 WSP claim that by using the 2022 NTS results, the results would be approximately £275,000.

4.4.11 Using the NTS Methodology, WSP Methodology and WSP (corrected) methodology for the locally calculated, bus trips per year per person, the following calculations can be made:

4.4.12 NTS Methodology:

- Population within catchment: 6000 people
- Bus trip per person per year: 32
- Yearly bus trips along whole route: 192,000
- Yearly revenue (assuming average single fare of £2): £384,000

4.4.13 WSP Methodology:

- Population within catchment: 6000 people
- Bus trip per person per year: 62
- Yearly bus trips along whole route: 372,022
- Yearly revenue (assuming average single fare of £2): £744,044

4.4.14 WSP (corrected) Methodology:

- Population within catchment: 6000 people
- Bus trip per person per year: 105
- Yearly bus trips along whole route: 625,909
- Yearly revenue (assuming average single fare of £2): £1,251,818

4.4.15 These figures have been calculated using the total number of people living on the bus route. This does not account for the those who would not purchase a ticket due to age. The population aged 5-59 along the route is 4200 as sourced from Podaris. Applying that figure to the yearly revenue would give a more accurate representation of the expected revenue.

The updated revenue calculations can be seen below:

4.4.16 NTS Methodology:

- Population within catchment: 4200 people
- Bus trip per person per year: 32
- Yearly bus trips along whole route: 134,400
- Yearly revenue (assuming average single fare of £2): £ 268,800

4.4.17 WSP Methodology:

- Population within catchment: 4200 people
- Bus trip per person per year: 62
- Yearly bus trips along whole route: 260,415
- Yearly revenue (assuming average single fare of £2): £520,831

4.4.18 WSP (corrected) Methodology:

- Population within catchment: 4200 people
- Bus trip per person per year: 105
- Yearly bus trips along whole route: 428,136
- Yearly revenue (assuming average single fare of £2): £876,273

4.5 Operating Costs

4.5.1 WSP provide an operating cost for the proposed service without any evidence, therefore we cannot comment on how it was derived. The cost provided by WSP is £834,731.

4.5.2 In comparison to the above calculations the route would generate the following profits or losses per annum:

- NTS Methodology – £268,800 - £834,731 = -£565,931pa
- WSP Methodology – £520,831 - £834,731 = -£313,900pa
- WSP (corrected) Methodology – £876,273 - £834,731 = £41,542pa

4.5.3 Using the information provided by WSP and following their methodology of calculating trips from the proposed development, their ticket pricing and operating costs, supplemented with data derived from the accepted Podaris Logit Model the route is shown to operate at a profit once the corrections to the methodology have been applied. This is before the S106 contribution considered appropriate by the Appellant is applied to further support the running of a viable bus service.

4.6 Sense Check

4.6.1 The WSP (corrected) methodology has been calculated using the £2 ticket price figure proposed by WSP. A sense check has been undertaken using the NRP proposed £2.32 ticket for comparison purposes. It found that the WSP (corrected) methodology would generate a profit of £181,745, which is slightly higher than the £144,612 identified using the NRP Methodology.

4.6.2 The fact that the methodologies vary in their approach to identify the commercial viability of a proposed bus route yet arrive at similar conclusions demonstrates that there must be some truth in the conclusion that the new bus service would be commercially viable.

4.6.3 A breakdown of the calculations can be seen in Appendix DAK2.

5 CONCLUSIONS

5.1.1 This rebuttal evidence considers the transport and highways implications of the proposed development for 180 dwellings and a shop of up to 500m^2 at Sodbury Road, Wickwar. It makes comments where appropriate on the evidence of Liz Fitzgerald. It does not seek to repeat points made in my Proof of Evidence.

5.1.2 The rebuttal focuses on bus service provision and in particular the WSP report included at Appendix 7 of the Fitzgerald evidence.

5.2 The Fitzgerald Evidence

5.2.1 The Fitzgerald evidence appears to be that there is no future for bus services in the local area and that the Appellant or the WECA bus contribution would be insufficient to run an 84/85 service. Bus services that are provided will cease. I disagree with this pessimistic outlook and consider that the significant Government funding to the area and national and local strategies will ensure bus services will continue and will benefit from increased passenger numbers.

5.2.2 Bus services can be improved and routes redesigned to offer much better commercial operations.

5.2.3 The WSP Report cannot be relied upon as it contains methodological inconsistencies and errors. The bus modelling undertaken is robust and WSP agree with the software tool used, its validation and accept the mode share prediction.

5.3 The WSP Report

5.3.1 WSP accepts that, 'Of the options presented, Options 6 does indeed provide a balance between being operationally efficient while maintaining good service coverage.'

5.3.2 WSP accept PODARIS as standard software and consider the validation of the Logit model as reasonable. PODARIS is, in my view, the best technical tool available to predict demand associated with bus service improvements. WSP use PODARIS themselves.

5.3.3 The predicted patronage growth is realistic given the bus service has been redesigned to be more direct between Wotton under Edge and Yate.

5.3.4 NRP modelling costs are considered to be overestimated. This adds rigour to the technical work.

5.3.5 We have undertaken a detailed audit of the calculations undertaken by WSP. WSP have made mistakes most notably they have used the wrong trip rate; vehicle and not person. When the calculation is reworked the answer is broadly similar to that produced by the PODARIS model.

6 STATEMENT OF TRUTH AND DECLARATIONS

6.1 Statement of Truth

6.1.1 I confirm that insofar as the facts stated in my Proof of Evidence are within my own knowledge I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.

6.2 Declarations

6.2.1 I confirm that my report includes all facts which I regard as being relevant to the opinions I have expressed, and that attention has been drawn to any matter which would affect the validity of those opinions.

6.2.2 I confirm that my duty to the planning appeal process overrides any duty to those instructing or paying me, that I have understood this duty and complied with it in giving my evidence impartially and objectively, and I will continue to comply with that duty as required.

6.2.3 I confirm that I am not instructed under any conditional fee arrangement.

6.2.4 I confirm that I have no conflicts of interest of any kind other than those already disclosed in my report.

Signed: 

Name: David Knight

Date: October 2023

APPENDIX DAK1

West of England Combined Authority Committee

Supplemental Information

Date: **Friday, 6 October 2023**

Time: **1.00 pm**

Place: **The Space, Keynsham**

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REPORT TO: **WEST OF ENGLAND MAYORAL COMBINED AUTHORITY COMMITTEE**

DATE: **6TH OCTOBER 2023**

REPORT TITLE: BUS SERVICE IMPROVEMENT PLAN PRIORITISATION

DIRECTOR: **DAVID GIBSON, STRATEGIC DIRECTOR OF INFRASTRUCTURE**

AUTHOR: **PHIL WRIGHT, PUBLIC TRANSPORT PROGRAMME MANAGER**

Purpose of Report

1. To ask members to give their views on the Prioritisation Framework to assess the West of England Bus Service Improvement Plan (BSIP) initiatives, including a quantitative assessment based on the Department for Transport (DfT) value for money methodology, and a supporting qualitative assessment to provide a recommended prioritisation of initiatives when redistributing any funding identified.
2. To update the current financial position of funding within BSIP and showing the impact of schemes delivered to date.
3. To propose a methodology for spending funding provided to support local bus services through the Local Transport Fund (LTF).

Recommendation

The West of England Mayoral Combined Authority Committee (MCA) is recommended to:

- **Recommendation 1:** To note the contents of the report and the associated independent Prioritisation Framework, and the associated qualitative assessment, to use for delivery of the BSIP.
- **Recommendation 2:** To set up a Citizens' panel to help to shape a formula to be applied to bus services that may not become commercially viable, but are socially necessary to assess and prioritise current funding (LTF) and for similar future funding streams.
- **Recommendation 3:** To note that BSIP is a joint fund with North Somerset Council so decisions on allocations are subject to negotiations with them and the Department for Transport; and agree in such negotiations officers will

endeavour to allocate an additional £0.5m of the BSIP budget on new, innovative bus services where these services are likely to become commercially viable, in the course of the BSIP period using an agreed transparent formula.

4. Reasons for recommendation

4.1 The BSIP programme is delivering a wide range of initiatives, which has enabled work to take place on understanding the benefits which give the greatest impact to bus users. This opportunity has provided a good evidence base to, not only show those benefits, but also the best way to invest in the future.

4.2 It is important that the residents are involved in proposals for how and where any new services will be delivered. The exact mechanism for delivering this will be developed at pace to ensure that any new services are running from April 2024.

Voting arrangements

In order to be carried, a decision on this matter requires a majority of the members present and voting, such majority is to include the Metro Mayor. Each member present may cast one vote. If a vote is tied the decision is not carried. There is no casting vote.

5. Background / Issues for Consideration

5.1 The West of England Mayoral Combined Authority and North Somerset Council (NSC) published their joint BSIP to the DfT in October 2021. The DfT allocated indicative funding for three years to March 2025 in April 2022 and confirmed funding in November 2022.

5.2 Our BSIP sets out 7 key strategic aims:

- A high mode share for buses against the whole travel market
- A high-quality bus service
- A high-quality waiting environment
- High vehicle standards
- A high level of passenger satisfaction
- High quality information
- Low fares, simple ticketing, and an easy means of payment

5.3 These aims fed in to 5 key targets:

- Reduce bus journey times on corridors by 2% by 2025 and 10% by 2030.
- Achieve 95% punctuality on bus services by 2030.
- Return patronage levels to pre-pandemic by 2025 and grow by at least 24% by 2030.
- Increase passenger satisfaction to 89% by 2025 and 95% by 2030.

- Make 75% of the buses low or zero emission by 2030 and increase that to 100% by 2035.

5.4 There is also the wider context that the bus industry has been experiencing difficult challenges as a result of inflation, a national bus driver shortage and decreased patronage levels since the pandemic. Inflation has led to rising operating costs for bus companies. The prices of fuel, maintenance, and other operational expenses have gone up, making it more expensive to run bus services. Driver shortages have led to reduced service frequency, longer waiting times for passengers and cancelled bus services. Operators have been trying to mitigate against this by offering higher wages and benefits to attract and retain drivers; wages constitute approximately 40% of the cost base. The COVID-19 pandemic has led to a decrease in bus patronage, however, even post the pandemic, ridership remains at 15-20% below pre-COVID-19 levels nationally. Increasingly, this looks to be due to societal changes, such as a move to more flexible working arrangements, working from home, and an accelerated switch to 'on-line' delivery-based shopping. As such, the bus industry remains heavily reliant on government support, such as the National Fares Cap scheme. Unless patronage increases, this will have a lasting impact on the future shape and sustainability of the industry.

5.5 In May 2023, the DfT issued changed guidance relating to the allocation of BSIP funding, which allowed Transport Authorities to use some BSIP funding for supported services" even if a trajectory to commerciality by the end of the programme could not be shown. However, any such allocations need to demonstrate value for money.

5.6 A Project Adjustment Request is required to be submitted to DfT for any changes to funding. Given the existing BSIP Programme has been agreed with the MCA's BSIP partner, NSC, a redirection of funding would also require approval from them.

5.7 In considering whether to redirect BSIP funding, the DfT has stated that Local Transport Authorities need to consider the following:

- Whether the routes under consideration for support would provide better value for money compared to previous plans.
- Whether the routes under consideration for support are likely to become sustainable in the longer term.

As such, this report includes a review of BSIP funding and potential distribution in this context.

5.8 We are aware that the change of guidance has impacted on other Transport Authorities nationally. One large Combined Authority has transferred a significant amount of their budget to funding supported services, for which DfT approval was required. It also required to them to committing to using local funding to continue those services once BSIP funding ends.

5.9 The BSIP programme is delivering a wide range of initiatives that fall under 4 key headings:

- Network & Services – which covers the provision of enhancements to existing services to increase frequencies to improve the level of services for the customer, two new bus services, grant funding opportunities for local bus operators through *WEST*local, a review of the regions bus network and the region wide demand responsive transport system, *WEST*link.
- Fares & Ticketing – covers three main fares packages to encourage increased patronage.
- Passenger Experience – improvements to information at bus stops, on bus and via apps, including a new region wide brand and the roll out across the network.
- Enhanced Partnership – create a partnership arrangement across buses between all stakeholders, including residents of the region, operators, and public bodies.

5.10 Five key initiatives have been delivered in BSIP to date, for which we hold some data to assess performance:

- Fares Package 1 – launched on 25th September 2022 and largely built around the flat fares of £2 single for adults and £1 for children.
- *WEST*link – Demand Responsive Transport (DRT) services launched on 3rd April 2023.
- Enhanced frequencies of existing bus services – launched on 3rd April 2023.
- Two new bus services, 522 and 525 – launched on 3rd April 2023.
- Fares Package 2 – first stage launched in July 2023 with an offer around free bus travel for the birthday month of users to promote increased patronage.

5.11 Fares Package 1 has shown good growth of patronage from launch, with a peak in late May 2023 that was 53% higher than the baseline. Correspondingly, the subsidy paid to the operators is some 10% lower than when the scheme was introduced.

5.12 *WEST*link has struggled with the national driver recruitment issue, with the number of vehicles on the road being an average of 70% of the 30 that were contracted. This figure has improved since late Summer and is now closer to the capacity. Patronage levels have grown significantly since launch, ranging from 179% in the southern zone, to over 300% in the northern zone, with the opportunity for further growth as the driver situation improves.

5.13 *WEST*link was launched at speed and has been responding to the national driver recruitment issue. However, we will now be taking the opportunity to significantly change how *WEST*link operates, in response to our learning to date and listening to the public on how the service can be improved. This will include:

- Potential changes to how the service operates, such as investigating options into smaller local zones / services.
- Changes to the zones to improve efficiency.
- Improve linkages with the wider bus network.

- A wider promotional campaign.
- Improvements to the App

The detail of this will be worked up in partnership with stakeholders over the Autumn, with the aim of a rapid launch, followed by phased further updates to the system.

5.14 Enhanced frequencies have been delivered on 5 key corridors across the region, with an, on average, 33% increase in frequencies. Patronage growth on these services have been positive. As patronage levels grow, the subsidy payment to operators will be reduced.

5.15 Two new services have been delivered with BSIP funding in April 2023, with an additional two services due to launch this September in North Somerset. Their performance differs significantly. The 522 follows the route of a former bus service, so is showing stronger patronage. The 525 is a new service that shows far lower patronage levels. Even with these differences, they both currently remain reliant on supported funding. There is an acknowledgement that these services provide social value over and above the funding issue. Both services are under a 2-year contract, with the aim is to make them commercially viable by March 2025.

5.16 Fares Package 2 is the most recently launched initiative, so the data is correspondingly less available. For the first month the number of applications received averaged around 1,623 a week, with a steady increase in usage across the month from 6,411 journeys per week at commencement to 13,421 by the end of August. More data will emerge over the coming months.

Prioritisation Framework

5.17 We have worked with KPMG to deliver a 'Prioritisation Framework' which looks at the value for money of all the interventions (using government guidance to assess a Benefit / Cost Ratio) and a qualitative assessment against a range of criteria. The qualitative assessment criteria are:

- Does it fit within the wider vision of BSIP and the West of England network?
- How does the intervention impact key social groups?
- Is the intervention sustainable within the funding period?
- Is the intervention deliverable within the funding period?

5.18 We considered a range of categories from the BSIP programme. These were:

- Enhanced Services
- Fares Packages
- Passenger Experience (improved information)
- New Services
- *WEST*link (DRT)

These initiatives were then assessed against the criteria to give an overall prioritisation number. These are set out in table 1 below:

Table 1: The table below sets out the results of the Prioritisation Framework for BSIP funding. The dot colouration indicates the following:

●Limited contribution/ potential, ●Some contribution/ potential, ●Strong contribution/ potential

Options	Step 1: Quantitative assessment	Step 2: Qualitative assessment				Prioritisation
		Criteria 1: Network Vision	Criteria 2: Socio-economic considerations	Criteria 3: Sustainability	Criteria 4: Deliverability	
Fares	High	●	●	●	●	1
Enhanced services	High	●	●	●	●	2
DRT	Poor-Medium*	●	●	●	●	3
Passenger experience	Medium	●	●	●	●	4
New Services	Poor-Low**	●	●	●	●	5

5.19 In line with the criteria set out above, with textual information below.

- **Fares initiatives are ranked 1st.** Fare initiatives provide the highest value for money and perform well against the other criteria, especially socio-economic impacts during the 'cost of living' crisis. The track record with Fares Package 1 is strong, with fare changes generating substantial new patronage.
- **Enhanced services are ranked 2nd**. These services provide high value for money as the investment benefits higher numbers of passengers. The initiative also aligns well with other criteria, including the network vision and deliverability. Early indications from the first package of service enhancements show greater than expected patronage growth.
- **DRT is ranked 3rd**. The expected value for money for DRT services is uncertain as use of the service is still uncertain. If patronage levels continue to increase and services are effectively promoted, the service could provide 'medium' value for money. DRT services fit with the network vision, have positive socio-economic impacts, and are easy to deliver. They are however likely to need on-going financial support. Given benefits including flexibility and cost efficiency, DRT services have advantages over fixed route supported services.
- **Passenger experience is ranked 4th**. The BSIP includes a package of measures to increase awareness of service availability and improved customer information. The initiatives have historically provided a good return on investment and feature in Transport Focus's list of factors driving passenger satisfaction. As a result, they are expected to provide 'medium' value for money and align well with the other prioritisation criteria.

- **New services are ranked 5th**. New services are likely to generate good socio-economic impacts but given cost inflation they are increasingly likely to need long term funding and may take time to procure through open tender. As a result of low patronage levels, new services are expected to provide poor to low value for money. Where patronage levels are higher, value for money is also higher.

We intend to use this analysis when reviewing any underspends to identify where to reallocate funds, however, this will be used as a guide to ensure value for money whilst understanding that there may be a strategic need to consider lower value initiatives.

BSIP Finances

5.20 BSIP finances were approved by DfT in November 2022, with a baseline budget of £57.5m forecast against the specific initiatives set out in Appendix 1. Funding for year 1 of the programme was not received until February 2023, so year 1 spend has been correspondingly low.

5.21 In September 2023, we were informed by DfT that funding for new, DRT and enhanced services could be used to extend bus service provision to 31 March 2026. Subject to firmer costings and commerciality discussions we propose to extend the 522 and 525, review and extend as appropriate the enhanced services and extend WESTlink to March 2026.

5.22 Due to the variability of the initiatives within BSIP, forecasts are continually updated with live data. Our current estimates suggest a slight overspend of £27K by the end of the revised BSIP period, but this will be managed in line with that live data.

5.23 Following the DfT announcement in September 2023, we have used this flexibility to create a back stop for any potential underspend across initiatives that have proved difficult to forecast, such as fares packages.

5.24 We have identified three initiatives which fit within the DfT guidelines that could be extended into 25/26. These are enhanced frequencies of existing bus services, *WEST*link and providing new services for the 126, X10, 522 & 525 bus routes. Having the flexibility to pump prime them for an extra year should lead to them becoming commercially viable at the end of the BSIP period. We will continue to develop further fare offers based on the scoring from the Prioritisation Framework laid out above.

5.25 Due to this recent update, we will work through updated costs for service extensions and update our forecasts to ensure that we will continue to review budgets and adjust as necessary. Most of the schemes rely on usage to determine

final costs and as such forecasts will be continually monitored to ensure any deviations are identified early. This will allow us to track any underspends that could be reallocated.

5.26 We will work with officers in the Unitary Authorities (UAs) to update on costs and budgets across the programme and where there may be any flexibility to add to the existing new and enhanced bus services.

5.27 Based on this information, the proposal is to set out funding allocations as below. BSIP funding will use the existing delegations set out previously by Committee:

- The surplus budget for new services allocation will be used to fund extensions into 2025/2026 to the four new routes already in existence.
- There is an additional amount of funding called the Local Transport Fund (LTF), which is allocated for Transport Authorities to provide bus services that require local authority support. This forms part of the Transport Levy and is additional to the budget for supported bus services. We received £1.1m this year in addition to previous funding, but this budget is subject to confirmation of the exact value based on costs relating to supported services.
- Any funding to deliver new bus services would need to show value for money in line with the DfT criteria, plus show a clear reflection and prioritisation by residents of the region. This would require public engagement that would be used for this funding.
- Services tendered through LTF monies would return to January Committee for approval with a wider update to BSIP funding as context.
- The remaining BSIP funding has been provisionally allocated against enhancing frequencies of existing bus routes and or including new routes where commercial viability of services has been achieved by or before March 2025 and the continuation of *WEST*link into 2025/2026. This will continue to be reviewed as more information on live schemes becomes available.
- These priorities will be agreed in partnership with NSC.
- We will continue to manage the transition to business as usual after BSIP and do not want to lose the services or see significantly increased fares. Budget will be required to manage this ‘cliff edge.’
- Additional short-term funding may be required to improve the existing *WEST*link service.
- Any decisions on finances for BSIP cannot be made without the approval of our partner NSC and DfT as appropriate.
- These proposals will ensure that we meet the needs of the people of our region through a mixed package of new bus services, enhancements to existing services and fares offers to encourage increased patronage, thereby both strengthening the commerciality of the network and reducing car use to improve congestion and air quality.

6. Consultation

6.1 The UAs have been updated on the KPMG report and shared both verbally and in drafting this paper.

6.2 Officers from the UAs are members of the BSIP Programme Board. During this meeting, UA (Unitary Authority) officers receive updates and provide feedback on the implementation of the BSIP programme.

7. Other Options Considered

7.1 Continue delivering the BSIP programme as set out in the bid to DfT without any value for money assessment. This was disregarded as it was felt that the value for money assessment was important to show the benefit of initiatives that are in delivery.

7.2 Reallocate funding to supported bus services as requested by key stakeholders. This would require approval from both NSC and DfT due to the removal of initiatives from the programme. If this value was above 10% of the total budget, it would require a full value for money assessment to show that this was the correct approach and may open up the risk of a required commitment for the region to commit to continuing those services with local budgets, that would be significantly above the value of the current Transport Levy. This option was disregarded as it would create financial risks for all partners across the region.

8. Risk Management/Assessment

8.1 Key risks for the recommendations are outlined in the table below:

Risk	Mitigation
Due to increased DfT flexibility on how BSIP funding can be allocated, there is political pressure to divert funds from current initiatives onto supported bus services.	Undertake a value for money exercise to determine the relative benefits of each initiative including supported services.
Due to delays in progressing certain initiatives, low uptake and uncertainty around the cost estimates, there is a risk that the programme will underspend, meaning it will not use its allocated budget efficiently.	Changes to DfT guidance have largely mitigated this impact by allowing bus services to continue to 2026, but budgets will continue to be tracked.
Any significant change to the existing BSIP programme will need to be agreed with DfT and resourced appropriately, both of which could	Ensure that the DfT are kept briefed on any potential changes and keep the resource plan updated with gaps identified.

delay delivery and spend.	

9. Public Sector Equality Duties

9.1 Socio-economic considerations, consideration needs to be given to the impact the options would have on the following demographic categories:

- Income distribution
- Children: proportion of population <16
- Young adults: proportion of population 16-25
- Older people: proportion of population 70+
- Population with disability
- Households with access to a car

The impacts for each of these user groups is considered within the framework proposed within the KPMG report.

10. Climate Change and Nature Recovery Implications

10.1 BSIP has overall positive environmental impact by improving public transport, which will help to reduce car dependency and their significant greenhouse gas emissions. However, with any transport scheme there is the potential for environmental impacts. Progressing the BSIP key target to make 75% of the buses low or zero emission by 2030 and increase that to 100% by 2035 will help to significantly reduce such impacts. Transport schemes also need to be future proofed to build the resilience of the transport network to climate risks such as flooding, heatwaves, and storms.

10.2 The Climate and Ecological Strategy and Action Plan sets out the environmental priorities for the region. In summary these are: net zero carbon by 2030, nature recovery and climate resilience. The MCA is reflecting these environmental priorities across its transport programmes, and that includes undertaking carbon management plan and accounting for the BSIP programme and setting out its plan for meeting the zero emissions buses target. BSIP also needs to undertake an initial climate risk & vulnerability assessment and integrate climate resilience measures where appropriate.

10.3 These requirements represent a new policy for the MCA, and it will take time to embed and transition this across the BSIP programme. The MCA will be determining the criteria for justifiable exceptions to these requirements (for example proportionality and impact).

10.4 The budget for all aspects of the required environmental work has not been included in the planning to date, and therefore it needs to be drawn down from programme contingency.

10.5 Report and advice reviewed and signed off by: Roger Hoare, Head of Environment

11. Finance Implications, including economic impact assessment where appropriate:

11.1 The report recommends the potential extension of services in 25/26 as per the new DfT guidelines announced in September 2023. It advises that decisions on underspend will be agreed with NSC and guided using the Prioritisation Framework developed by KPMG. The surplus budget from supported services will be used to extend the funding of four supported bus routes during 25/26. The figures in Appendix 1 are estimates and are being continually monitored, reviewed and updated.

11.2 Report and advice reviewed and signed off by: Rachel Musson, Interim Director of Investment and Corporate Services

12. Legal Implications:

12.1 Any amendments to the *WESTlink* contracts referred to at para.5.13 will be lawful in accordance with the contractual provisions and the Public Contract Regulations 2015.

12.2 There are no additional legal implications arising from this report.

12.3 Report and advice reviewed and signed off by: David Cox Interim Senior Commercial Lawyer.

13. Human Resources Implications:

13.1 Any requirements for substantive (fixed term/permanent) and interim/agency staffing will be supported through Human Resources team through recruitment processes.

13.2 In situations where funding is reduced, internal managing change and redeployment processes will be applied where applicable.

13.3 Report and advice reviewed by Monica Ogborne, Senior HR Business Partner, and signed off by Alex Holly, Head of People and Assets

14. Land/property Implications

14.1 No implications

Appendices:

Appendix 1 – BSIP current budget allocation by initiative

Background papers:

BSIP Prioritisation Report: https://www.westofengland-ca.gov.uk/wp-content/uploads/2023/07/Prioritisation-Report-BSIP-1.pdf

West of England Mayoral Combined Authority Contact:

Report Author	Contact Details
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APPENDIX DAK2

Data

Source				Notes
Planning Application	Proposed Dwellings	180		
WSP	Residents per dwelling	2.5		
Calculated	Population of Development	450		
NRP - Podaris	Population along route	6000		Population that would use the bus
NRP - Podaris	Aged 5-59 population along route	4200		Population that would pay to use the bus
WSP	Bus ticket	£	2.00	

Demand for Bus Travel

			Notes
Planning Application	Trics daily vehicle trip rate	4.878	per dwelling
Planning Application	Trics daily people trip rate	8.207	per dwelling
WSP	Daily trip rate per person	1.95	Calculated by dividing the 'Trics daily vehicle trip rate' which is per dwelling by 'Residents per dwelling'
WSP (Corrected)	Daily trip rate per person	3.28	Calculated by dividing the 'Trics daily people trip rate' which is per dwelling by 'Residents per dwelling'
	Days per week	7	
WSP	Weekly trip rates	13.7	
NRP	Weekly trip rates	23.0	
NRP - Podaris	Percentage of all trips taken by bus	8.73%	
WSP	Weekly bus trip per person	1.19	
WSP (Corrected)	Weekly bus trip per person	2.01	
	Weeks per year	52	
WSP	Bus trips per person per year	62	
WSP (Corrected)	Bus trips per person per year	104	
WSP	Annual bus trips from the Proposed Development	27902	WSP Response technical note rounded down to 27,900. This is due to the 'Bus trips per person per year' being rounded up to 62 from 62.00
WSP (Corrected)	Annual bus trips from the Proposed Development	46943	

Proposed Route Demand

				Notes
NTS	Bus trips per year per person	32		National statistic - It is considered that localised statistics are more accurate than national statistics, therefore this should not be used in place of the localised statisics produced as by WS
WSP	Bus trips per year per person	62		
WSP (Corrected)	Bus trips per year per person	104		
NTS	Bus trips per year along whole route	192000		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
WSP	Bus trips per year along whole route	372022		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
WSP (Corrected)	Bus trips per year along whole route	625909		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
NTS	Revenue	£	384,000.00	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP	Revenue	£	744,044.07	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP (Corrected)	Revenue	£	1,251,818.31	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP	Operating cost	£	834,731.00	
NTS	Profit/loss	-£	450,731.00	Calculated by subtracting 'Revenue' from 'Operating cost'
WSP	Profit/loss	-£	90,686.93	Calculated by subtracting 'Revenue' from 'Operating cost'
WSP (Corrected)	Profit/loss	£	417,087.31	Calculated by subtracting 'Revenue' from 'Operating cost'

Proposed Route Profit/Loss

				Notes
NTS	Revenue generating bus trips per year along whole route	134400		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
WSP	Revenue generating bus trips per year along whole route	260415		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
WSP (Corrected)	Revenue generating bus trips per year along whole route	438136		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
NTS	Corrected Revenue	£	268,800.00	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
WSP	Corrected Revenue	£	520,830.85	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
WSP (Corrected)	Corrected Revenue	£	876,272.81	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
NTS	Corrected Profit/loss	-£	565,931.00	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'
WSP	Corrected Profit/loss	-£	313,900.15	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'
WSP (Corrected)	Corrected Profit/loss	£	41,541.81	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'

Data

Source				Notes
Planning Application	Proposed Dwellings	180		
WSP	Residents per dwelling	2.5		
Calculated	Population of Development	450		
NRP - Podaris	Population along route	6000		Population that would use the bus
NRP - Podaris	Aged 5-59 population along route	4200		Population that would pay to use the bus
WSP	Bus ticket	£	2.32	

Bus Trip Demand

			Notes
Planning Application	Trics daily vehicle trip rate	4.878	per dwelling
Planning Application	Trics daily people trip rate	8.207	per dwelling
WSP	Daily trip rate per person	1.95	Calculated by dividing the 'Trics daily vehicle trip rate' which is per dwelling by 'Residents per dwelling'
WSP (Corrected)	Daily trip rate per person	3.28	Calculated by dividing the 'Trics daily people trip rate' which is per dwelling by 'Residents per dwelling'
	Days per week	7	
WSP	Weekly trip rates	13.7	
NRP	Weekly trip rates	23.0	
NRP - Podaris	Percentage of all trips taken by bus	8.73%	
WSP	Weekly bus trip per person	1.19	
WSP (Corrected)	Weekly bus trip per person	2.01	
	Weeks per year	52	
WSP	Bus trips per person per year	62	
WSP (Corrected)	Bus trips per person per year	104	
WSP	Annual bus trips from the Proposed Development	27902	WSP Response technical note rounded down to 27,900. This is due to the 'Bus trips per person per year' being rounded up to 62 from 62.00
WSP (Corrected)	Annual bus trips from the Proposed Development	46943	

Proposed Route Demand

				Notes
NTS	Bus trips per year per person	32		National statistic - It is considered that localised statistics are more accurate than national statistics, therefore this should not be used in place of the localised statisics produced as by WS
WSP	Bus trips per year per person	62		
WSP (Corrected)	Bus trips per year per person	104		
NTS	Bus trips per year along whole route	192000		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
WSP	Bus trips per year along whole route	372022		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
WSP (Corrected)	Bus trips per year along whole route	625909		Calculated by multiplying the 'bus trips per year per person' by 'population along the route' (6000)
NTS	Revenue	£	445,440.00	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP	Revenue	£	863,091.12	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP (Corrected)	Revenue	£	1,452,109.23	Calculated by multiplting 'bus trips per year along whole route' by 'Bus ticket'
WSP	Operating cost	£	834,731.00	
NTS	Profit/loss	-£	389,291.00	Calculated by subtracting 'Revenue' from 'Operating cost'
WSP	Profit/loss	£	28,360.12	Calculated by subtracting 'Revenue' from 'Operating cost'
WSP (Corrected)	Profit/loss	£	617,378.23	Calculated by subtracting 'Revenue' from 'Operating cost'

Proposed Route Profit/Loss

				Notes
NTS	Revenue generating bus trips per year along whole route	134400		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
WSP	Revenue generating bus trips per year along whole route	260415		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
WSP (Corrected)	Revenue generating bus trips per year along whole route	438136		Calculated by multiplying the 'bus trips per year per person' by '5-59 population along the route' (4200)
NTS	Corrected Revenue	£	311,808.00	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
WSP	Corrected Revenue	£	604,163.79	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
WSP (Corrected)	Corrected Revenue	£	1,016,476.46	Calculated by multiplting 'Revenue generating bus trips per year along whole route' by 'Bus ticket'
NTS	Corrected Profit/loss	-£	522,923.00	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'
WSP	Corrected Profit/loss	-£	230,567.21	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'
WSP (Corrected)	Corrected Profit/loss	£	181,745.46	Calculated by subtracting 'Corrected Revenue' from 'Operating cost'

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