Appeal by: Bristol Airport Limited

Appeal Reference: APP/D0121/W/20/3259234

North Somerset Council Application Reference: 18/P/5118/OUT

Rebuttal proof of evidence of
Tim Colles BEng (Hons)
Transport

Reference: NSC/W4/3

Atkins

ATKINS

Member of the SNC-Lavalin Group

Appeal APP/D0121/W/20/3259234
Application 18/P/5118/OUT

Development of Bristol Airport to enable throughput of 12 million passengers per annum

North Somerset Council

02 July 2021

Tim Colles BEng (Hons)

Rebuttal of Proof of Evidence of Scott Witchalls (Surface Access)

TOWN AND COUNTRY PLANNING ACT 1990
APPEAL BY BRISTOL AIRPORT LIMITED
ON BEHALF OF NORTH SOMERSET COUNCIL

Contents

1. Development of Bristol Airport Appeal

1.1.1. This rebuttal relates to issues raised in Mr Witchalls' Proof of Evidence ("PoE") and to matters raised in additional information provided by the Appellant which I was unable to address in my PoE because it was provided very shortly before exchange of evidence.

1.1.2. I have focussed my evidence in this Rebuttal PoE on the matters where I consider Rebuttal evidence would most assist the Inquiry. However, this should not be taken as a concession that I accept the other parts of Mr Witchalls' PoE which I do not comment on here.

2. A38/Bristol Airport Roundabout (J1)

2.1.1. Paragraphs 5.6.14 to 5.6.18 of Mr Witchalls' PoE consider the operation of the A38/Bristol Airport Roundabout (J1). It is stated that the prosed mitigation of 'exit widening is not reflected in the junction assessments and represents a significant improvement in capacity'. The assessment undertaken in the TAA only considers the capacity of vehicles entering the junction and therefore assumes there are no capacity constraints for vehicles exiting the junction. The analysis and capacity results therefore already take into account the exit widening and no further improvements to the reported operation of the junction would be achievable.

2.1.2. A revised junction capacity assessment is undertaken of a 'more likely' traffic distribution based on 'assumptions'. The traffic distribution arriving at the junction has been revised from a north/south split of 78%/22% to 66%/34%. There is no analysis to justify this assumption and therefore the results of the capacity analysis cannot be relied on.

2.1.3. The junction capacity results of the revised analysis are presented in Table 5.3 of Mr Witchalls' PoE. The A38 (S) approach is still shown to operate at an RFC of 0.89 which is unacceptable (Paragraph 3.4.18 of my PoE). Accordingly, I do not understand how Mr Witchalls can conclude at paragraph 5.6.18 that the revised junction assessment demonstrates operation "well within capacity": this is simply not the case.

3. A38/Barrow Lane Junction (J5)

3.1.1. Paragraph 5.6.29 of the PoE states that 'There is no increase in traffic exiting/entering the minor arm (Barrow Lane) in either the Reference Case or Test Case scenarios, since the airport traffic does not use this route.' It is therefore concluded junction improvements are not necessary at this junction. It should be noted that the airport traffic does significantly increase traffic flows on the A38 at the junction with West Lane by 71 vehicles in the AM peak, 203 vehicles in the Airport peak, and 268 vehicles in the PM peak (Mr Witchalls PoE Table 5.2). This increase in traffic would significantly worsen the performance of this junction and therefore mitigation needs to be provided. It is also stated that any mitigation would promote rat running but Barrow Lane performs a necessary function

in providing local connectivity. Without mitigation, cumulative impacts at this junction would be severe.

4. Public Transport Mode Share Targets and Rationale

4.1.1. Section 6 of Mr Witchalls' PoE considers public transport mode share and targets. In paragraph 6.1.4 it is stated 'the actual baseline PT mode share was not known (bus ticket data suggested a lower figure than 15%, but CAA data a higher figure)'. In order to maximise public transport mode share it is necessary to fully understand the existing mode share. No explanation has been provided as to the differences in mode share between ticket data and CAA data.

4.1.2. Effects of bus improvements are considered in paragraphs 6.5.6 to 6.5.11. It is stated that 'Measures are based on knowledge of potential demand for routes' but no evidence of the potential demand is provided. The effects of the improvements are based on 'a conservative estimate' and capping maximum use. Improved public transport mode share has only been considered within the local area and specific regional hubs. Additional public transport mode share would also be possible from outside these areas and they have not been considered. The public transport mode share from Bridgwater has been assumed to be the same as Taunton which has the lowest baseline mode share for the A2 service. No analysis has been provided to demonstrate what maximum public transport mode share would be achievable from Bridgewater. The Weston-super-Mare public transport mode share has been capped at 60%, again, this doesn't take into account the maximum mode share achievable. The Demand Responsive Transport uplift has also been capped at 60%, again not considering the maximum mode share achievable. The Metrobus integration with the A1 Bristol Flyer has assumed a minimum bus patronage of 15% which does not take account of the maximum public transport mode share achievable.

4.1.3. The effects of the improvements do not therefore result in maximised sustainable mode share which is required (my PoE section 3.2).

4.1.4. Accordingly, I remain of the view that a mode share increase of 2.5% is neither adequately justified nor ambitious enough to maximise sustainable transport mode share.

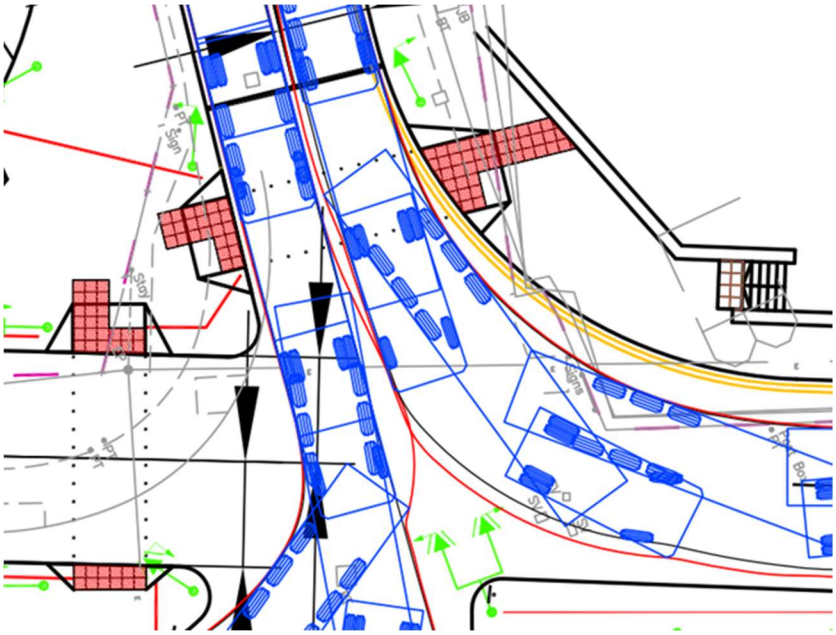
5. NSC's Request for Additional Information

5.1.1. Paragraph 9.8.5 of the Mr Witchalls' PoE identifies that 'Additional information has been provided to NSC separately in response to these requests.'

5.1.2. Traffic Flow Tuning Movements have been provided. The data has been reviewed and appears to be correctly applied in the Addendum Transport Assessment. Section 4.3 of my PoE is therefore no longer pursued.

5.1.3. An Updated Personal Injury Collision Review has been provided. It has been reviewed and is considered to be acceptable. Section 4.8 of my PoE is therefore no longer pursued.

5.1.4. Some swept path analysis for the vehicle movements into and out of the Downside Road junction with the A38 has been provided. The extract from Drawing No. C1124-SK-A38-011 2.0 HGV swept path, provided below, shows two vehicles colliding whilst making the manoeuvres out of Downside Road. It has therefore not been demonstrated that vehicles can safely negotiate the proposed junction mitigation scheme.



5.1.5. No other manoeuvres at this junction or the A38 junction with West Lane have been provided and therefore this matter remains unresolved as it cannot be determined if the proposed mitigation can be negotiated safely, without vehicles colliding with each other, or vulnerable road users (section 4.6 of my PoE).

5.1.6. A CAD file of the proposed junction improvements has been received and the issues identified in my PoE (sections 4.12, 4.13 and 4.14) still remain, with the exception of the footway/cycleway width between Downside Road and the airport roundabout which is now satisfactorily resolved.

5.1.7. The following information requests by email from me via Richard Kent of the Council to Liz Higgins at BAL on 19th May 2021 remain outstanding:

Highway Infrastructure

a) Swept path analysis for the proposed mitigation scheme for all possible turning movements;

b) A revised Stage 1 Road Safety Audit for the proposed highway mitigation scheme; and

c) A revised WHCAR reviewing the development, impact and opportunities of the proposed highway scheme design.

Parking Demand Study

a) Car park occupancy data to verify the occupancy ratio used to determine operational utilisation;

b) Calculations and analysis to verify the additional parking demand identified to support the demand studies; and

c) Assessment of mode share to determine how revised increases in public transport usage will impact on the parking demand.

Public Transport

a) Analysis undertaken to identify unmet public transport demand and opportunities for additional public transport services, and the mode share shift they would equate to; and

b) Bus ticket sales or patronage data to confirm the 2017 sustainable mode share of 12.5% and identification of where increases in passenger numbers have been realised.

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