

## MATTER 11: INFRASTRUCTURE PROVISION AND VIABILITY

1. This Hearing Statement has been prepared on behalf of Slimbridge Parish Council (SPC), who have submitted extensive representations in relation to the proposed Wisloe new settlement (hereafter referred to as “PS37”). In particular, it relates to Matter 11b: Transport.
2. Many of the questions raised under Matter 11b are inter-linked as they are informed by the Council’s Sustainable Transport Strategy (STS) **[EB60a]** and the Council’s Traffic Forecasting Report (TFR) **[EB61]**. The STS sets out the sustainable transport related mitigation measures to be implemented by the Council and/or the respective allocations and includes the Council’s assumptions of the modal shift these will deliver. The TFR then takes account of the predicted modal shift and identifies the highway mitigation required to offset the residual traffic impacts.
3. Before answering the individual questions that form Matter 11b it is necessary to consider the deliverability of the proposed STS measures and the accuracy of the modal shift they are predicted to provide. If it is not possible to deliver the sustainable travel measures envisaged, or if the modal shift assumptions are over-estimated, the residual traffic flows will be much higher than currently allowed for in the TFR. This in turn will lead to much higher levels of congestion under the current highway mitigation proposals, or the potential need for additional highway mitigation to offset the higher traffic flows.
4. The following review relates mainly to PS37 however, if the assumptions used for PS37 are found to be inaccurate, then it is likely that the assumptions used for the other proposed allocations will also be inaccurate thereby drawing into question the conclusions of the STS and TFR as a whole.

### Sustainable Transport Strategy

5. Appendix A of the STS Addendum **[EB108]** identifies that PS37 will provide modal shift from the car to sustainable modes of travel in four ways:
  - Ensuring local services and amenities are available within the site to reduce the need for future residents to travel beyond its limits, i.e., internalisation.
  - Providing contributions and support to public transport along the A38 corridor (express services linking Bristol and Gloucester).
  - Creating pedestrian and cycle links to Cam and Dursley Railway Station.

- Creating a sustainable 'spine' linking Wisloe, Cam and Dursley, i.e., pedestrian, cycle and public transport improvements along the A4135 corridor.

6. The first question must therefore be – can such measures be implemented? This is discussed further below.

#### Internalisation

7. Internalisation of trips within larger mixed-use developments is an accepted transport planning concept and may well occur if PS37 is developed. It will, however, be essential to ensure that appropriate local services and amenities are provided at an early stage of the development if the benefits of internalisation are to be fully realised. A Primary School, a Supermarket, a Health facility, and a variety of Leisure opportunities must be provided as an absolute minimum together with the employment opportunities that also form part of the proposed allocation.

#### Public Transport on A38 Corridor

8. Under the assessment of PS37 within the STS Addendum there is an expectation that the development will “...**support and contribute to sustainable transport measures on the A38 and A4135 sustainable transport corridors.**” However, no detail is provided on exactly what this support and any contributions will help deliver.
9. The original STS identified potential interventions that could be implemented (page 21) which local to Wisloe included:
- **“Rapid bus/coach services to key destinations such as Bristol.**
  - **Improved frequencies of bus services, improvements in bus stop infrastructure, and where appropriate, bus priority.”**
10. The use of words such as ‘potentially’ and ‘could’ clearly indicate that the Council has no defined plan for the corridor so it is difficult to see how the Council can accurately assign a significant modal shift from the car to public transport on this basis.
11. It is also worth noting that bus based public transport in the United Kingdom is currently in crisis due to reduced patronage and a lack of drivers. First Group have recently withdrawn a number of bus services in the Bristol area and reduced the frequency on others. Similarly, Stagecoach have recently cancelled and amended bus services across Gloucestershire with the aim of prioritising urban and commercial routes.

12. The Department for Transport's 'Bus Back Better (2021)' guidance and the 'Gloucestershire Bus Service Improvement Plan (2021)' may envisage improved bus services and infrastructure but clearly there are significant viability and staffing issues that may prevent implementation as planned. Initial 'pump priming' of new or additional services may be possible on the back of development but, if in the long term there are no drivers and/or low passenger numbers, the services will inevitably be withdrawn or reduced in frequency. Placing significant reliance on a modal shift to public transport is not therefore considered appropriate.

Pedestrian and Cycle Links to Cam and Dursley Railway Station

13. One of the Council's main reasons for allocating PS37 is its proximity to Cam and Dursley Railway Station. If the benefit of this proximity is to be realised it is essential that high standard, direct sustainable transport links are provided between PS37 and the Station.
14. The STS Addendum identifies that PS37 will “...**improve access to sustainable travel modes to Cam and Dursley stations [sic] and contribute towards the improvement of passenger facilities.**” The Council and the Promoter envisage that this will be delivered via a pedestrian and cycle link in the form of a bridge over the Motorway that will connect with Box Road.
15. The PS37 area to the south of the Motorway is generally flat with the Motorway raised slightly above it. The deck of the bridge structure would therefore need to be approximately 7m above existing ground level, spanning approximately 50m over the Motorway, and with approach ramps of up to 140m to ensure appropriate gradients for cyclists and the mobility impaired. It would also need to be at least 5.5m wide to accord fully with the requirements of Local Transport Note 1/20: Cycle Infrastructure Design.
16. A bridge structure of this magnitude would dominate the local area visually particularly given the need for street lighting. It is not clear whether the landscape impact of such a bridge in this location has been fully considered by the Council when preparing the Draft Local Plan which raises the question of whether it could be delivered as part of a subsequent planning application.
17. Such a bridge would also be a major engineering exercise and would come at a significant cost. It is noted from page 36 of the Promoter's Regulation 19 Master Plan Report Part 1 that the bridge is referenced as “**Delivery of Active Transport Link and Motorway Bridge (subject to grant funding?)**” The reference to grant funding highlights a potential viability issue which could impact on its delivery.

- 18.** Furthermore, pages 25 to 28 of SPC's Regulation 19 response referenced the Council's / Promoter's failed bid for Garden Communities funding. Responses to questions raised in relation to the bid identified that a development of 1,500 dwellings may only be able to justify improvements to the existing walking and cycling facilities along the A4135 corridor. This again suggests significant concerns regarding the viability of delivering the more appropriate and higher standard pedestrian and cycle bridge that PS37 relies on.
- 19.** Delivery of a new bridge and improving the passenger facilities is also dependent on the cooperation and agreement of other parties. National Highways must agree to bridging over the Motorway, Network Rail and the Train Operating Companies must agree to the improved passenger facilities, and third party land may be required for the section southeast of the Motorway.
- 20.** The above demonstrates that there is no guarantee the pedestrian and cycle bridge and connection to the Railway Station will be delivered. If it is not, the perceived benefit of the site's proximity to the Station is completely lost as the alternative pedestrian and cycle routes are poor.
- 21.** Encouraging rail use is not only a factor of the pedestrian and cycle links to the Station but also the number of trains available, their routes and their frequency. Existing services are limited to broadly an hourly frequency in both directions with services to Gloucester and Cheltenham (and occasionally beyond) to the north and to Bristol Parkway, Bristol Temple Meads, Bath and beyond to the south. This level of service provides limited choice of trains particularly for those with standard working hours in the higher order settlements of the region. The attractiveness of the train for commuting purposes is therefore low.
- 22.** Train services could of course be improved but the ability to introduce additional trains is not with the Council or the Promoter of PS37. The ability lies primarily with Network Rail and the train operating companies whose agreement cannot be guaranteed.
- 23.** Information obtained from Network Rail identifies 108 trains per day on the line through Cam and Dursley Station comprising a mix of slow freight trains, slow passenger services (stopping at Cam and Dursley) and Cross-Country express trains potentially travelling at up to the 100mph maximum line speed.

24. It is a busy line with limited opportunities to introduce new train paths for additional stopping services. Considerable investment would be required by Network Rail to increase the line speed, update the signalling, introduce faster accelerating trains, and potentially electrify the line before any significant improvement in service frequency could be delivered. Such investment by Network Rail and the train operating companies cannot be guaranteed.
25. As such, there must be considerable doubt that a pedestrian and cycle bridge over the Motorway and an increase in frequency of train services can be delivered by the Council and/or the site Promoter. Without either, or indeed both, there will be minimal modal shift from the car to the train.

Sustainable Corridor to Cam and Dursley Town Centres

26. As discussed previously, the STS Addendum identifies that PS37 is expected to “...**support and contribute to sustainable transport measures on the A38 and A4135 sustainable transport corridors.**” However, no detail is provided on exactly what this support and any contributions will help deliver.
27. The original STS (February 2021) identified interventions that could be implemented (page 23) which included:
- **“Completion of Cam – Dursley – Uley Greenway.**
  - **Removing pedestrian and cycle pinch points along the full length of the corridor, such as:**
    - **Dedicated pedestrian and cycle provision at railway pinch-point,**
    - **Improved pedestrian and cyclist access over A4135/Box Road junction.**
  - **Increase in bus service frequency and bus stop infrastructure, with improved connections to Cam and Dursley Railway Station.**
  - **Bus priority measures along the corridor where possible and where they can provide tangible benefits.**
  - **Multi-modal interchange facilities at the A38 and Cam and Dursley Station.”**
28. Again, the use of the word ‘could’ does not give confidence that all or any of the interventions ‘will’ be implemented.
29. For the A4135 to be truly called a sustainable transport corridor it would need to include high standard facilities for pedestrians, cyclists and public transport users. LTN 1/20: Cycle Infrastructure Design, identifies that cycle routes should be coherent, direct, safe, comfortable, and attractive. There should also be consistency along their length and priority given to the cyclist wherever possible.

30. There are numerous constraints along the length of the A4135 between the A38 roundabout and Cam which would likely prevent delivery of the high standard cycle route required by LTN1/20 and envisaged by the proposed sustainable corridor designation. These include the narrow road width and extremely narrow footway width at the A4135 bridge over the railway, the restricted width of adopted highway in some locations, numerous existing (and proposed) side road junctions of differing forms, and on-street, and in some locations on-footway, parking.
31. As before, there are significant structural deficiencies in the bus industry at present meaning little reliance can be placed on the ability to deliver new or improved bus services.
32. Given these issues it is difficult to see how the sustainable transport corridor between PS37, Cam and beyond could be delivered in the manner envisaged by the Council.

Will the Assumed Modal Shift be Achieved?

33. The original 2021 STS assumed that internalisation would lead to a 6% modal shift away from the car, while the public transport improvements to the A38 corridor, the pedestrian and cycle links to the Railway Station, and the A4135 sustainable transport corridor would each lead to a further 10% modal shift.
34. These values were based on “...**professional knowledge and experience of the development and implementation of sustainable travel measures...**” (page 31 of the STS). Deriving the potential modal shifts in this way means there is no ‘evidence’ that the values will be achieved. The values are little more than an educated guess on what it is ‘assumed’ will happen and are therefore clearly open to significant optimism bias.
35. The STS Addendum revisited the above assumptions such that the modal shift associated with internalisation was increased to 10% with the modal shift associated with the A38 corridor and the links to the Railway Station both being increased to 15%. The modal shift associated with the A4135 corridor remained at 10%.
36. There is no justification given for the increase in modal shift that has been assumed nor any evidence presented to this end. There is however reference to a “...**greater level of ambition towards sustainable travel...**” (page 24) which suggests that the values have simply been increased to recognise this. The ambition may well be there, but it remains the case that no evidence has been provided to justify the revised values and there can be no guarantee they will be achieved. The increased modal shift values merely increase the optimism bias that has been applied.

Traffic Forecasting Report

37. The above review of the proposed sustainable travel interventions contained within the STS and its Addendum highlights that there is no guarantee that those linked to PS37 can or will be delivered. There is also no evidence presented within the STS to fully justify the modal shift values that have been assumed so, even if the interventions can be delivered, there is no guarantee the modal shift will be achieved.
38. The TFR is reliant to a large degree on the accuracy of the STS predictions, i.e., delivery of the sustainable transport interventions and achieving the modal shift they are assumed to deliver. Table 4.1 of the TFR Addendum [EB98] demonstrates this by identifying the assumed reduction in car trips associated with the STS as being 13.6% in the AM peak and 14.5% in the PM peak. It should be noted that the title of the Table reinforces the 'assumed' nature of the modal shift used.
39. Even with the assumed modal shift the TFR Addendum identifies (page 10) “...**substantial capacity and congestion issues are forecast to remain on the unmitigated highway network.**” Clearly, if the assumed modal shift from the STS is not delivered the ‘substantial capacity and congestion issues’ identified will be even greater. This in turn will lead to either the need for additional highway mitigation to offset the difference, or acceptance that the highway network will be significantly over capacity once the Local Plan has been built out. Both scenarios are unacceptable.
40. For PS37 it is considered extremely unlikely that the sustainable transport interventions identified in the STS can or will be delivered as envisaged, and that there is no evidence to justify the assumed modal shift values that have been applied. Similar comments can be applied to the other proposed allocations within the STS which undermines the accuracy of the entire document.
41. With the TFR relying so strongly on the accuracy of the assumptions made in the STS, by default, the findings of the TFR and the highway mitigation requirements it identifies must also be drawn into serious question.
42. Considering the above, certain of the Inspector’s questions under Matter 11b are answered below:

**Q2) Have all essential transport infrastructure elements been identified and does the Plan adequately address these needs in its identification of the scale and location of proposed development?**

43. No. The lack of evidence on the ability to deliver the sustainable transport measures contained within the STS and the modal shift they are assumed to provide means the findings of the TFR cannot be relied upon. Additional transport infrastructure may be required which could in turn impact on the scale and location of proposed development.

**Q4) Will the mitigation measures identified be sufficient to address the highway impacts identified?**

44. No. The accuracy of the TFR cannot be relied upon therefore the highway mitigation proposals it identifies may not be sufficient.

**Q5) Is the Council satisfied that the Plan proposals would not have an unacceptable impact on highway safety or that the residual cumulative impacts on the road network would not be severe?**

45. The accuracy of the TFR cannot be relied upon therefore the highway mitigation proposals it identifies may not be sufficient. This could lead to unacceptable impacts on highway safety and severe residual cumulative impacts on the road network.

**Q24 The STS Addendum has updated the assessment framework that fed into the modelling in order to understand the traffic impact of the site allocations on the District's highway network. One of the considerations used in the update is stated as being a greater ambition towards sustainable travel across the District and to consider the impact of new sustainable transport interventions. Table 5.1 lists the effect of the updated assumptions, with most showing a reduction in the number of trips as a consequence of the updated considerations.**

- a) **How was the extent of the reduction in the number of trips decided? Are the values evidence based?**
  - b) **Given that there is some uncertainty over the funding status of many of the sustainable transport schemes listed in the STS Addendum was it reasonable to take account of these considerations?**
  - c) **If the sustainable transport interventions cannot be delivered in the right place and at the right time to support the allocations, what effect, if any, would this have on the updated modelling assumptions in terms of impact on the highway network?**
46. The answers to the above sub-questions have in effect been given within the above review of the STS and its Addendum. It is considered that the reduction in the number of trips (increased modal shift) has been based on nothing more than an educated guess and is not evidence based.
47. All the sustainable transport schemes identified in the STS Addendum will need to be delivered in their entirety and to achieve the assumed modal shift for the wider highway network to operate satisfactory throughout the Local plan period. The uncertainties regarding funding mean that this cannot be guaranteed.



48. Again, if the sustainable transport interventions and the modal shift assumptions cannot be delivered, the findings of the TFR cannot be relied upon and additional highway mitigation may be required.