

Examination of the Stroud District Local Plan Review (Crest Nicholson: 897)

Matter 11 Infrastructure Provision and Viability

Issue 11 – Does the Plan set out a positively prepared strategy for infrastructure provision to meet the Plan’s development strategy and is this justified, effective and consistent with national policy? Are the policies relating to infrastructure sound? Is the provision viable?

Matter 11a Infrastructure – General Questions

Infrastructure and Developer Contributions – Core Policy CP6?

- 1. *The policy seeks ‘to ensure that infrastructure will be in place at the right time to meet the needs of the district and to support the development strategy.’***
 - a. *The policy identifies the Council’s broad intentions in achieving infrastructure provision, rather than setting out clear development requirements. What infrastructure is actually sought from development proposals or is this appropriate set out within other Plan policies including the site allocations? Can the Council clarify the purpose of the policy and how a decision-maker would use it when determining future proposals?***
 - b. *As regards the reference to developer contributions; we are unclear as to exactly what the policy is seeking from development proposals? What contributions are actually sought and are these viable? Can the Council clarify please?***
 - c. *Overall, is the policy justified, effective and consistent with national policy?***

As acknowledged at paragraph 2.9.30, an Infrastructure Delivery Plan accompanies, but is not part of the Local Plan. It identifies the infrastructure that local service providers and the District and County Councils have established is key to delivering the Local Plan.

There is uncertainty concerning the projects covered and this goes to the heart of the approach, which relies on “regular review of the Infrastructure Delivery Plan” – in essence, there is not a fixed programme. While some projects may fall away, others (unspecified) may be introduced, each with their own complexity, delivery and viability issues.

Within the terms of the policy is an acceptance that the Council will have regard to viability and site-specific circumstances. The implications are unclear in circumstances where larger infrastructure / transport solutions may require contributions to be pooled from several developments - such as the currently envisaged upgrade to Junction 12 (J.12) of the M5 Motorway. For instance, what would happen if one development could viably contribute whilst another cannot, yet the cumulative effects of both developments are reliant on the scheme?

The transport evidence base should be updated to bring it into line with national policy, which prioritises non-car solutions. On this basis a fuller package of sustainable transport measures that reflect site specific and strategic opportunities could be defined, such that highway capacity interventions can be minimised/avoided. The policy should make clear reference to the non-car priorities of the IDP.

Matter 11b Transport

Definition and Scope of Transport Infrastructure Required

- 2. *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? Has the preparation of the Plan been consistent with paragraph 104 of the Framework which states that transport issues should be considered as the earliest stages of plan-making?***

The Plan fails to adequately address all infrastructure requirements as it fails to provide a comprehensive strategy for non-car modes relating to the individual allocation sites in a way that minimises private car travel and makes non-car travel a priority. It is understood that the Plan has been developed without meaningful input from Stagecoach (the largest public transport operator in the area), contrary to the requirements of paragraph 106(b) of the Framework. This indicates there may be missing evidence relating to public transport, which may be compounded in the traffic modelling and concomitant requirements for highway capacity improvements.

- 3. *In general terms will Core Policy 6, the Infrastructure Delivery Plan (IDP) and other policies of the Plan, including allocation policies, ensure that necessary transport infrastructure will be delivered in the right plan and at the right time?***

As previously identified, CP6 fails to acknowledge that priority will be given to non-car transport solutions. As a consequence, the residual traffic effects of the Plan are likely to have overestimated the requirement for highway capacity improvement schemes, which will ultimately encourage use of the private car and drive associated CO2 emissions.

- 4. *Will the mitigation measures identified be sufficient to address the highway impacts identified?***

As addressed previously, the traffic modelling results in an over-estimate of the need for physical highway improvement to deliver additional capacity in the network, because the policies and strategies of the Plan have ignored the full opportunity to promote and coordinate non-car travel within, between, and around the strategic allocations. A vision-led approach to traffic forecasting is required to understand the opportunities and constraints and maximise the potential of non-car sustainable transport strategies, so the Plan can effectively deliver against its own objectives and legal obligation to contribute towards the achievement of net zero.

- 5. *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?***

While the Plan would not have an unacceptable/severe impact on highway safety and the road network the Plan places undue emphasis on engineered solutions/creating improved highway capacity.

As previously stated, this results in clear conflict with other Plan and national policies, and should be revisited, with a new strategy then being evaluated for its safety and residual performance credentials.

- 6. *How will the Council work with infrastructure and service providers (including National Highways, developers, landowners and neighbouring authorities) to identify and address any impacts of proposed development, including through the use of contributions, CUL and through the implementation of any highway improvement schemes?***

As previously identified, 'Policy Paper: Strategic Road network and the delivery of sustainable development' (updated December 2022) sets out the approach that National Highways will take on matters relating to the Plan and future development proposals. As evidenced in the below extracts, National Highways' approach, which has been updated to reflect the legal requirements relating to the achievement of net zero, will require all alternatives to be explored before highway infrastructure upgrades to the Strategic Road Network (SRN) will be accepted, including through demand management which would include a vision-led approach to traffic forecasting.

“23. Capacity enhancements such as modifications to existing junctions or road widening to facilitate development should be determined on a case-by-case basis. The general principle should be accepted where proposals would include measures to improve community connectivity and public transport accessibility, and this will be weighed against any negative safety, traffic flow, environmental and deliverability considerations, impacts on the permeability and attractiveness of local walking, wheeling and cycling routes, and alternative options to manage down the traffic impact of planned development or improve the local road network as a first preference.”

32. The Transport Decarbonisation Plan indicates that carbon emissions from car and van use is the largest component of the United Kingdom’s total transport emissions. While action is being taken to decarbonise transport such that all new cars and vans will be fully zero emission at the tailpipe from 2035, the proposed location of growth in current plan periods and whether new developments would be genuinely sustainable remain important factors in demonstrating that a local authority area is on a pathway to net zero by 2050 and therefore compliant with the requirements of the Climate Change Act 2008.

It is therefore unclear how the Council will be able to work with National Highways, in particular, given that key infrastructure improvements in the Plan – including J.12 of the M5 Motorway – are not demonstrably necessary because all alternatives have not been sufficiently explored/evaluated.

To provide context transport evidence is being prepared to support an outline planning application for the development of the Hunts Grove extension (adopted Policy SA4 of the Local Plan – draft Policy PS30) site in 2023. As part of this work, a vision-led approach to traffic forecasting is being undertaken, in full compliance with the updated National Highways circular, the Government’s decarbonisation of transport plans, and in support of the future work of Active Travel England.

This work includes a full movement demand analysis associated with the development, apportioning this into trip purposes, in line with the National Travel Survey (NTS). This includes commuting trips, shopping, education, and personal business. It evaluates the location of amenities within each trip purpose and considers existing census trip behaviours against travel distance to evaluate the likely propensity to travel by each mode, ensuring there is appropriate infrastructure available to complete that journey.

At this stage, no further allowance for travel plan interventions has been undertaken. However, even though this work is in its early stages and will be subject to consultation with Gloucestershire County Council, as the local highway authority, and National Highways, early results indicate that residual car use from the Hunts Grove Extension (SA4/PS30) could be between 25% and 65% lower than the assumptions used within the Council’s updated traffic modelling (July 2022).

Calibro are also exploring opportunities for wider area travel planning to maximise the contribution that the scheme could make to Plan objectives relating to net zero and sustainable travel, such that measures could be extended to include the adjoining Hunts Grove development, the planning permission for which has no requirement for travel planning. While this would not be an explicit requirement of the allocation policy, it accords with the general thrust of Plan and national policies which seeks to exploit all non-car opportunities as a priority.

Further work is required to identify the scale of the opportunity. However, it could reasonably yield a reduction of 10-15% of car trips being generated by the extant Hunts Grove community. There is also active discussion with the local bus operator (Stagecoach) and common ground has been reached between both parties regarding the potential to deliver bus service routeing and frequency enhancements that will not only work to maximise patronage from the existing Hunts Grove community and new residents within Hunts Grove Extension, but which would deliver meaningful improvements to existing bus journey times and reliability that would deliver a benefit to surrounding communities.

Those existing trips that would be diverted to more sustainable modes would generate space in the existing highway network that would be likely to largely offset any residual need to travel by private car arising from the delivery of the Hunts Grove Extension.

In this context, extracting this vision-led strategy might help to avoid costly and complex highway improvements such

as the upgrade of J.12 of the M5 Motorway. In the context of realising and exploiting the ingrained non-car credentials of the Hunts Grove Extension site, it is anticipated that delivery of the Hunts Grove extension could be decoupled from delivery of the J.12 M5 Motorway improvement (which would reflect the adopted Policy SA4 position).

Demand Management and Sustainable Travel Measures – Core Policy CP13

- 7. Core Policy CP13 seeks to support major development subject to three transport related criteria. It also provides a further 4 criteria to be met by all development schemes. The policy also expects proposals to ‘consider all possible sustainable transport options’ before increasing the capacity of the road network and to be consistent with and contribute to the implementation of the agreed transport strategy’.**
- a. Is the policy consistent with national policy which includes seeking to minimise the need to travel and promoting sustainable transport modes?**
 - b. Does the policy set out clear requirements for sustainable transport provision? What is meant by the term ‘consider all possible sustainable transport options’? What are developers meant to do after they have considered such options?**
 - c. Does the policy recognise that opportunities to maximise sustainable transport solutions may vary between urban and rural areas as recognised in paragraphs 85 and 105 of the Framework? How does this apply to Stroud District?**
 - d. Are the criteria justified and effective? Is it clear how a decision-maker should determine proposals against each of the relevant criteria?**
 - e. Is the reference to ‘having regard to...the Council’s adopted (parking) standards appropriate? Are these the standards set out in Appendix C? Is the policy clear on this and are the standards justified?**
 - f. Is the requirement to be consistent with the transport strategy justified?**
 - g. How does this policy relate to Delivery Policy EI12? Are the policies consistent? Is there unnecessary or confusing duplication between these policies?**

We consider that the requirement that Policy CP13 places on the need to consider all possible sustainable transport options before increasing the capacity of the road network is consistent with national policy and is in line with delivering on the Plan objectives of contributing to the achievement of net zero. It is also aligned with the updated National Highways Policy Paper (December 2022).

However, this approach has not been applied properly in the context of the evidence base, which has resulted in over-estimated traffic forecasts within the updated traffic modelling (2022), which, in turn, is likely to identify an otherwise avoidable requirement for highway capacity improvements, particularly at Junction 12 of the M5 Motorway. Indeed, we understand that Stagecoach, as the largest bus operator in Stroud District, have not been meaningfully consulted on the Plan to date, which raises immediate concern that the current transport evidence has not been tested robustly.

For these reasons, the resultant transport strategy has potential to be in conflict with and/or actively work against the objectives of Delivery Policy EI12 and Policy CP13 by creating advantageous conditions in favour of private car travel, resulting in the creation of otherwise avoidable emissions.

District-Wide Mode-Specific Strategies – Delivery Policy DE11

- 9. The policy describes what the Council’s intention is in relation to working with key partners rather than setting clear policy requirements for development? Can the Council explain the purpose of the policy?**

Support is offered to the merits of Delivery Policy DE11, but concern is raised that sufficient progress has not been made with key partners, including Gloucestershire County Council and National Highways, to develop district-wide strategies

that enhance sustainable travel opportunities integrated with planned growth. Such strategies are imperative to the traffic modelling evidence on which the transport strategy, and package of mitigation, is derived.

Failure to understand the extent of opportunities created by the district-wide strategies has the potential to over-estimate the need for new capacity improvements, which will create incentives to travel by car, increasing vehicle kilometres and emissions, whilst also creating embodied carbon through creation of the infrastructure itself.

Protecting and Extending our Walking and Cycling Routes – Delivery Policy EI13

10. The policy includes not permitting development where it would significantly harm an existing walking or cycling route or prejudices the proposed routes as listed. What is meant by ‘significant harm’ and are the 8 listed routes justified? Are these clearly identified on the policies map?

Whilst we are generally supportive of the policy aspirations, we wish to highlight issue with the requirement of the policy to “connect to nearby established and proposed walking and cycling routes” which creates a duty on a developer to deliver infrastructure over a potentially unlimited distance to connect into existing cycle routes. This element of the policy requires a degree of proportionality to avoid creating issues of viability.

We would also like to suggest that the policy be conditioned to enable reasonable alternatives if/where impact to an existing cycle route or strategy is identified. For instance, by allowing an alternative route of equal or better provision.

11. Overall, is the policy justified, effective and consistent with national policy?

Provision and Protection of Rail Stations and Halts – Delivery Policy EI14

12. Is the policy justified, effective and consistent with national policy?

As noted elsewhere within written submissions to the examination, the provision of a station/halt at Hunts Grove is not achievable under the provisions of the Local Plan. The planning permission for Hunts Grove required the safeguarding of land for provision of a station for a period of five-years following commencement of the development. The obligation lapsed in 2015.

Delivery and Viability

16. The Transport Funding and Delivery Plan (July 2022) (TFDP) identifies three transport mitigation packages. These are:

M5 Junction 12:

- **Improvements to M5 J12 (a new grade-separated junction);**
- **Improvements to the A38 / A430 / B4008 ‘Crosskeys’ Roundabout; and**
- **Improvements to the B4008 / Stonehouse junction.**

M5 Junction 14: comprising improvement to M5 J14 (a new grade-separated junction) and dualling of the B4509 between M5 J14 and A38.

A38 Corridor (This package includes the following number of individual junctions which have been identified for highway capacity improvements in the Traffic Forecasting Report (EB61)):

- **A38 / Grove Lane;**
- **A38 at Claypits;**

- **A38 / B4066;**
- **A38 / B4066 Berkeley Road;**
- **A38 / Alkington Lane; and**
- **A38 / A4135.**

Are these mitigation measures necessary and justified? Do they represent a comprehensive set of mitigation measures required to support the levels of growth set out in the Plan?

As previously discussed, we consider that the updated traffic modelling (2022) is flawed and results in overly pessimistic assumptions of residual traffic levels. This is because no proper assessment of non-car options has been undertaken in line with the requirements of the Plan and national policy.

Consequently, there is insufficient evidence that a) the full package of mitigation is necessary and b) the effects of each allocation can be properly attributed to the impacts that require mitigation. Consequently, at this stage the mitigation measures, as currently presented, are not justified.

17. As regards the proposed dualling of the B4008 and new park and ride:

- Should these be included in the M5 J12 mitigation package?***
- Is it reasonable and realistic to expect the dualling of the B4008 to be delivered as part of the Javelin Park extension site? Has a scheme been identified and costed to deliver this piece of infrastructure? Are there any implications for the delivery of Javelin Park extension site? For example, is it necessary for this scheme to be delivered at a particular stage of the development and is that achievable?***
- If the new park and ride scheme is still at scoping stage does this have implications for the viability and deliverability of the Plan?***

The dualling of the B4008 occurs on the eastern side of J.12 of the M4 Motorway. Given the distribution of traffic arising from planned growth traffic arising from developments such as the Hunts Grove Extension would not materially impact this section of the highway network and would therefore not be reliant on its delivery. To incorporate the costs within the wider J.12 mitigation works would therefore cause costs to be shared by development that would be unrelated to the improvements.

18. The TFDP sets out indicative costs for the three schemes (page 5). For the M5 J12 scheme this is £9,437,500; the M5 J14 scheme is £27,246,837; and the A38 package is £3,812,500. Are these indicative costs realistic and do they provide a reasonable basis upon which to consider the viability of delivering the growth set out in the Plan?

The Council has significantly underestimated the costs of the M5 J.12 scheme. The proposals are represented only in a traffic model. They have neither been designed nor properly costed. A similar grade separated motorway junction, such as the new Avonmouth junction on the M49 south of the Western Distribution Park, delivered in 2020, was budgeted at £40-£50M. In that case it was a new junction that did not include abnormal costs associated with removal of the existing infrastructure, for example.

The allowance for J.12 is therefore considered to be significantly underestimated. This would have significant issues on viability of the Plan given that there is no assumption of public funding and a reliance on contributions from strategic allocation. However, given that policy requires non-car modes to be prioritised, it is reasonable to assume that some of the strategic allocations, including PS30 (Hunts Grove Extension), may provide evidence to demonstrate that contributions of the scales envisaged are unjustified. This would place even greater burden on other strategic allocations.

20. In the absence of national funding being available, the TFDP sets out a proposed apportionment methodology which would seek to take account of external growth from neighbouring authorities (including Gloucester,

Cheltenham, Tewkesbury and South Gloucestershire). The TFDP goes on to explain that at this stage, the scale, location and nature of growth in these Districts is uncertain due to their respective Plan's being at an earlier stage of development. Nevertheless, modelling assumptions have been made in order to take account of growth from neighbouring Districts.

- a. Were neighbouring Districts involved in discussions to develop these modelling assumptions and has any agreement been reached on this issue (such as Statements of Common Ground)?*
- b. In looking at housing growth assumptions and the split between major and minor/windfall development it is noted that this was derived from housing delivery data from Stroud District. Was this a reasonable and realistic assumption to make? Are patterns of housing delivery data between Stroud and neighbouring authorities sufficiently similar to make this assumption valid?*
- c. The TFDP goes on to apportion background growth between neighbouring authorities' developments based on these assumptions. Table 7 sets out the results of the apportionment exercise. M5 J12 is set out as 38% Stroud and 62% from neighbouring authorities; M5 J14 is 20% from Stroud and 80% from neighbouring authorities; A38 Corridor is 60% from Stroud and 40% from neighbouring authorities. It would therefore appear that the majority of funding required for these infrastructure schemes is expected to be provided by neighbouring authorities, presumably sourced from developer contributions. Are these assumptions realistic or reasonable? Is there a realistic prospect of this funding coming forward to deliver the infrastructure required?*
- d. Have discussions with neighbouring authorities taken place regarding the apportionment of these costs? Has any formal agreement been reached? How would funding for these schemes be collected and distributed? Which Council would lead the co-ordination and provision of these infrastructure schemes?*
- e. How would the global figure assigned to neighbouring authorities be broken down at the individual district level?*
- f. Is the level of funding that is expected to be sourced from developments in neighbouring authorities realistic and is there a reasonable prospect of it being secured during the lifetime of the Plan? If not, are there any implications for the delivery of the Plan?*
- g. Are any of the schemes identified reliant on land in third party ownership for their delivery? If so have discussions with relevant land owners taken place? If necessary, have realistic acquisition costs been included when calculating likely scheme costs?*
- h. The TFDP distributes the growth apportioned for Stroud District to 12 site allocations. Is the scale and distribution of costs reasonable? Is there agreement that the costs set out are reasonably accurate? Have viability considerations been appropriately considered?*
- i. The TFDP states that sites delivering over 150 dwellings were considered capable of contributing towards strategic mitigation packages. How was this threshold set? Is it justified?*
- j. If agreement on the apportionment of growth to neighbouring authorities cannot be reached, or if it is found that Stroud should meet a greater proportion of the cost of these schemes would there be implications for the deliverability and viability of these allocations?*
- k. Equally, if agreement cannot be reached would failure to deliver the infrastructure schemes during the plan period affect delivery assumptions for these allocations?*
- l. Are any allocations or development reliant on the delivery of any of these schemes at a particular point during the plan period? For example, we note comments from National Highways that improvements to Junctions 12, 13 and 14 of the M5 are likely to be required early in the plan period. If so, is a lack of identified funding likely to affect delivery assumptions in the Plan?*

See response to Q.18 above.

21. ***The Sustainable Transport Strategy (STS) Addendum (July 2022) lists 14 interventions to be included in the STS Addendum (Table 2.2). The schemes include a number of significant infrastructure projects that are referred to in the Plan including public transport for a strategic park and interchange hub scheme for M5 J12 and a new railway station (s) south of Gloucester, north of Bristol. Under funding status, all the interventions state ‘still required’.***
- a. ***Has any funding been identified to support the delivery of these interventions?***
 - b. ***Reference is made to a Strategic Outline Business Case (SOBC) being produced for a potential rail station at Stonehouse which will test options and deliverability. What are the timescales for this piece of work and when is it expected to be completed? If the SOBC concludes that a new station would not be viable would there be any implications for the Plan?***
 - c. ***Are any allocations or development reliant on the delivery of any of these schemes at a particular point during the plan period? If so, is a lack of identified funding likely to affect delivery assumptions in the Plan?***
 - d. ***Are these interventions expected to be delivered during the plan period and if so, how will they be funded?***

As previously identified, reference to the rail station/halt at Hunts Grove should be removed.

23. ***The STS Addendum sets out a number of other proposed updates to site proposal and policies (page 15 onwards).***
- a. ***Are these proposals necessary and justified by the evidence?***
 - b. ***Has the effect of these requirements on the viability of the relevant allocations and policies been considered and if so, what does the evidence show?***
 - c. ***In order to ensure that the Plan is effective should the updates be incorporated into the text for the relevant allocations/policies in the Plan?***

The STS Addendum, as with the original STS, does not ‘model’ the effect of the various travel measures. It identifies a range of manually determined adjustments to mode share. There is no evidence to support these.

Notwithstanding, the STS Addendum fails to identify a comprehensive transport strategy that would guide the sustainable delivery of strategic allocations, i.e. common bus services / infrastructure. In this way the STS fails to recognise or measure to potential opportunity presented by each of the strategic allocations, both individually and cumulatively. Consequently, the STS fails to adequately guide the updated traffic modelling (2022) which has most likely overestimated the residual traffic movements on the network, leading to a package of highway improvements that would work against more sustainable travel options being pursued.

The need for the measures included within the STS Addendum are unproven and would conflict with one of the main challenges of the Plan, which is to deliver sustainable development that helps to contribute to the achievement of net zero.

The STS Addendum, as an important input to the updated traffic modelling (2022), is unsound.

24. ***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?***

As previously identified, the STS has been developed comprehensively and is likely to have missed key opportunities. Indeed, there has been no meaningful engagement with the local bus operator which raises questions of the rigour of the final STS. Calibro are working on behalf of Crest Nicholson on transport matters in support of a forthcoming planning application later in 2023. They are working closely with Stagecoach to create a vision-led approach that would not only help to unlock the potential of the Hunts Grove Extension (PS30) but which would also deliver material modal shifts to the adjoining Hunts Grove development, whilst helping to unlock more sustainable delivery of other strategic allocations.

Sustainable transport measures are relatively quick to deliver and cost-effective by comparison to highway infrastructure projects, such as the M5 J.12 improvements. Early engagement with the commercial operators will ensure that a deliverable and viable (in perpetuity) scheme of interventions can be identified, apportioned and delivered in a programmed way that should avoid delays in housing delivery. The same cannot be said of large scale, complex and costly strategic highway infrastructure.

Mirroring our recommendation elsewhere in this response, we would therefore advocate that the Plan evidence be updated to reflect Plan and national policy to make non-car travel the priority, to develop a coordinated strategy of works that can minimise residual car use and which mitigation measures can be delivered in support of the planned trajectory.