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Our Ref: 35776_004_reps_20.10.22_AJCV1

Dear Sir/Madam

PLANNING FOR OUR FUTURE: STROUD DISTRICT LOCAL PLAN REVIEW – TECHNICAL EVIDENCE LIMITED CONSULTATION

Nexus Planning (Nexus) is instructed by Crest Nicholson (Crest) to act in respect of the Stroud District Local Plan Review. The instruction maintains continuity of advice in this regard, the same personnel having made representations to preceding rounds of consultation on the emerging Local Plan, most recently to the Pre-Submission Draft Local Plan in July 2021, the Stroud District Local Plan Review Draft Plan for Consultation – November 2019, and the Local Plan Emerging Strategy Paper – November 2018. These comments should be read in conjunction with the previous submissions. **Crest Nicholson Land and Partnerships’ representations are assigned reference 897.**

This submission is made in the context of land interests controlled by Crest, comprising the major component of land identified under draft policy PS30 – Hunts Grove Extension. Policy PS30 carries forward the allocation within the adopted Local Plan under Policy SA4. The policy identifies the land to the south of Haresfield Lane for a 750-dwelling extension to the main Hunts Grove site. Crest appeared at the previous Local Plan examination to provide evidence supporting allocation of the land and has maintained a dialogue with the planning authority regarding the proposed delivery trajectory. An outline planning application pursuant to Policy SA4 is scheduled for submission during the first quarter of 2023. Pre-application advice relating to the current masterplan proposals is being sought from the local planning authority.

In the context of the emerging policy framework it is important to acknowledge the status of the site as a development commitment that has been examined as a strategic component of the adopted development plan for the district. The status of the land as a strategic housing delivery component of the policy framework for the district is therefore established.

These representations to the Technical Evidence Limited Consultation are submitted in support of the representations submitted on behalf of Crest to the Regulation 19 (R.19) consultation. The Council’s response document submitted to the examination under reference **SLP01a**, which summarises representations made at the R.19 stage, notes in response to the representations made on behalf of Crest that the Council would be submitting evidence to the examination to address these points. These representations, informed by the enclosed ‘Review of Transport Evidence Base’ note prepared by Vectos, address the further evidence provided by the Council and consider the extent to which earlier matters raised have been addressed.

EB98 – Traffic Forecasting Report Addendum (April 2022)

Comments were submitted to the R.19 consultation in July 2021 under reference 897 specifically in respect of policies CP6 and PS30.

The technical aspects of the Traffic Forecasting Report Addendum (TFRA) are reviewed in the enclosed 'Review of Transport Evidence Base' note prepared by Vectos. The key points being:

- **Baseline Forecast:** The proposed 2040 Baseline Forecast / 'do minimum' scenario includes committed developments and transport schemes, but assumes excludes allocations proposed in the Local Plan. The Hunts Grove Extension was allocated for development in the current Local Plan that was adopted in November 2015. As such it should be counted as a committed development and therefore form part of the 2040 Baseline Forecast / 'do minimum' scenario.
- **Trip Rates:** The trip rates assumed for the Hunts Grove Extension are higher than those agreed in respect of the outline planning application for the original 1,750 dwellings. Given that the Hunts Grove Extension is an extension to an existing community it would normally be expected that the trip rates would be at equal, if not lower, than assumed for the original application. Furthermore, the change in travel behaviour following the COVID-19 pandemic (more people working from home on a regular basis) means that it is unrealistic to assume that household trip rates have increased since the original application was submitted. As result of both these factors it is considered that the TFRA over estimates the impact of the Hunts Grove extension on the highway network in traffic modelling terms.
- **Trip Distribution:** It appears that the assumed distribution of traffic is based on the 2011 Census which provides details of home based work trips. While this is a reasonable approach for commuting journeys, this approach over estimates the impact of non-work trips such as education, leisure and visiting friends/family. This results in the overestimation of long distance trips within the model and thus increases the impact of development on the Strategic Road Network (SRN) and the required level of mitigation.

EB109 – Transport Funding and Delivery Plan (July 2022)

Comments were submitted to the R.19 consultation in July 2021 under reference 897 specifically in respect of policies CP6 and PS30.

As set out above the extension to the main Hunts Grove new neighbourhood is an existing development plan commitment allocated under the provisions of Policy SA4 of the adopted Local Plan. Policy SA4 does not include any specific provision for contributions to be made towards improvements to the Strategic Road Network (SRN) either within the policy itself, or in the supporting text. There is no mechanism in place that identifies how improvements to highway infrastructure of a strategic nature should be funded, or the associated costs apportioned pursuant to allocation within the adopted Local Plan. Absent of any such mechanism it is anticipated that development coming forward under the policies of the adopted plan relating to the strategic allocations would address infrastructure improvements on a proportionate and necessary basis to facilitate delivery. In this regard the operating principle, based on earlier discussions with National Highways, is that the development of the full Hunts Grove extension pursuant to the terms of Policy SA4 would likely result in the junction 12 of the M5 reaching operational capacity. However, it is understood that there currently remains an amount of 'headroom' available within the junction. In the context of the Transport Funding and Delivery Plan (TFDP) and the Infrastructure Delivery Plan (IDP) this is the critical consideration when the apportionment of contributions towards funding the scheme is to be determined.

The representations made herein are submitted on this basis and it is acknowledged that the remit for this Technical Note, as set out at paragraph 1.4, is to support the preparation of the IDP, the function of which is to facilitate delivery of the emerging allocations contained within the draft Local Plan. Where an existing allocation is being rolled forward, as is the case with Policy SA4 (PS30), it should be considered as part of the baseline position against which funding requirements are to be established, with any component element of the existing allocation that is able to be delivered before junction 12 reaches capacity subtracted from the assessment that informs how funding costs are apportioned between the emerging allocations. To illustrate the point, if capacity is available within the existing junction arrangement to support the delivery of 250 dwellings pursuant to Policy SA4, prior to junction 12 reaching capacity, any consideration of cost apportionment between the emerging allocations should be adjusted to reflect this position. Under such a scenario the Hunts Grove extension should be modelled as a 500 dwelling scheme, rather than a 750 dwelling scheme, and the proportion of the contribution towards funding the improvement works adjusted accordingly.

The acknowledgement at paragraph 2.12 that the scale of contributions from certain schemes should be determined according to their impact on the highway network supports the point made above in the case of the Hunts Grove extension. It is appropriate in this case to ensure that the findings of the Transport Assessment that will support the planning application being made in 2023 inform the scale of contribution that should be made to mitigate impacts arising from the development because this will provide a more detailed consideration of impacts than the broad set of assumptions being applied within the Technical Note and the IDP.

The recognition at paragraph 3.2-3.4 that the scheme costs are indicative for the purposes of plan-making is welcomed. However, the apportionment methodology indicates that the PS30 allocation is treated in similar fashion to the other draft allocations that would impact on the operation of the junction. The methodology should ensure that the caveats outlined above are taken into account in deriving an appropriate apportionment of costs towards the junction improvements¹. The recognition that funding costs to be drawn from the identified schemes will be subject to future revision and adjustment is welcomed.

It is noted that the TFDP note is presaged on the assumption at the time of its production that there will be no Road Investment Strategy (RIS) funding available to support either of the improvement schemes identified at junctions 12 and 14 of the M5. The note goes on to state that there will inevitably be schemes beyond the boundary of Stroud District that will exert an impact on the operation of each junction but due to the lack of progress in advancing strategic plans to the north and south of the district it is unclear how such levels of growth will affect each scheme. In light of such uncertainties it would be prudent to maintain flexibility when defining policy requirements in this regard and to anticipate that there may be future scenarios that include other sources of funding to support the implementation of SRN improvements.

Section 5 of the Technical Note implies, but does not make clear, how assumed impacts have been apportioned between the emerging allocations. In absence of such clarity it is reiterated that the model/methodology should have clear regard to the relative status of the allocations within the emerging Local Plan and treat each accordingly in line with the representations set out above.

The apportionment of impact and proportion of funding therefore to be sought from the proposed allocations is set out at Table 9. The M5 junction 12 mitigation package is modelled with 38% of Impact/Funding requirement assigned to

¹ The adjustments that need to be made in respect of apportionment are in addition to those that need to be made in respect of Trip Rates and Trip Distribution in the TFRA.

SDLP allocations and 62% to developments within neighbouring authorities (Table 7). Table 9 then sifts the contributions according to level of impact and determines for the purposes of this assessment the following split:

Policy Reference	Allocation	Dwellings/Employment Land (ha)	Apportionment
G1	South of Hardwicke	1,350	26%
G2	Land at Whaddon	3,000	15%
PS20	M5 J.13	10 ha	7%
PS30	Hunts Grove Extension	750	21%
PS43	Javelin Park	27 ha	32%
Totals:		5,100/37ha	101%

The basis and justification for the proposed apportionment is not clear from the content of the Technical Note and therefore it is difficult to comment on the robustness of the assumptions that have been made. However, the methodology appears not to draw any distinction between the allocations as to their confirmed/draft status, or to discount the proportion of the SA4 allocation that could be delivered prior to any junction improvements taking place. This adjustment should be incorporated into the methodology for the reasons set out above.

Table 10 sets out the apportionment of costs to be applied to each scheme, which would be recovered. The content of the table should be subject to the provisions set out above and the apportionment of costs adjusted to ensure that the status of the sites is reflected properly and proportionately within the assessment. On the face of the figures alone, relative to the size of the proposed allocations, the distribution of cost appears to be questionable. To illustrate, the Hunts Grove extension is assigned around 21% of the funding cost distributed to the Stroud allocations, while South of Hardwicke attracts only 26%, despite being 80% larger in scale (and being an entirely new allocation proposal). While it is accepted that the modelling may theoretically support such an apportionment it should be tested fully having regard to the comments made herein to ensure that the approach is justified.

The conclusions set out at Section 6 of the Technical Note are welcomed insofar as they admit to a level of uncertainty that affects the application of the methodology and the inputs to it, particularly with regard to the impact that will arise as a consequence of as yet undefined development schemes that are likely to come forward to the north and south of the district. With regard to the assertion at paragraph 6.6 that a robust methodology has been applied, this should be tested against the comments made within these representations to ensure that the status of the allocations is reflected properly within the assumptions that have been made.

EB110 – Infrastructure Delivery Plan Addendum Report (July 2022)

Comments were submitted to the R.19 consultation in July 2021 under reference 897 specifically in respect of policies CP6 and PS30.

Table 1 outlining Highway Mitigation schemes associated with the emerging allocations in the Local Plan is noted. There is no objection in principle to the Hunts Grove extension making contributions towards highway mitigation schemes that are necessary to mitigate the effects of the development on the local highway network in a manner that is proportionate and directly related to the scale of the impacts. However, any such contributions should be based on robust Trip Rate and Trip Distribution assumptions and reflect the status of the allocation as an existing commitment within the adopted Local Plan. The approach to determining the scale of any such contributions being determined in accordance with the approach set out in submissions made on behalf of Crest to EB109.

The conclusions set out at 2.2.4 regarding education contributions is welcomed and Crest concur with the approach to determining the scale of education contributions on a case by case basis. With regard to the Hunts Grove extension the SA4 policy already includes a requirement to make appropriate provision to meet the educational needs arising from the development and masterplanning that is underway reflects this requirement.

The specific infrastructure requirements applying to the PS30 allocation are noted. There is no in-principle objection to the scope of contributions that are likely to be sought, although it should again be noted that an application will be brought forward during Q1 of 2023 under the terms of Policy SA4 of the adopted Local Plan with heads of terms for S106 contributions proposed pursuant to the adopted policy framework. Consistent with earlier submissions to the emerging Local Plan any reference to the safeguarding of land for a railway station at the Hunts Grove new community has lapsed. The original allocation (from the 2005 Local Plan) and the planning permission for development of the 1,750 dwelling main site included a requirement to safeguard land for the provision of a railway station within the original masterplan area. The safeguarding was subject to a time limitation within which the requirement to make the land available would be triggered. This period has elapsed. There is no facility to make provision for a railway station within the site of the proposed allocation, or under the provisions of Policy SA4, it is therefore not relevant to carry this forward.

The schedule relating to contributions that may be sought from site PS30 within Appendix A (p.32), is noted. The schedule should be treated as an estimate only and should not be assigned any determinative degree of accuracy for the purposes of benchmarking S106 contributions in connection with a planning application. Crest recognises that the scheme will attract a requirement for an appropriate and proportionate package of planning obligations that will satisfy the tests set out within the CIL Regulations. The outline application for development of the site under the terms of Policy SA4 is being prepared on this basis.

Summary

There is no objection in principle to the Hunts Grove Extension making contributions towards infrastructure that is necessary to mitigate the effects of the development. However, in accordance within national planning policy the contributions need to be proportionate and directly related to the scale of the impacts. In this respect the following should be noted:

- **Traffic Forecasting Report Addendum (April 2022):** It is appropriate, subject to the caveat in the second bullet below, that predicted trip rates and trip distributions are used to identify the likely impact on the highway network and to apportion the costs of the required mitigation measures between the proposed allocations. However, the TFRA overestimates both the trip rates and the impact of non-work trips on the highway network. In addition, the assessment makes no allowance for the internalisation and containment of trips within the Hunts Grove Extension. These assumptions need to be reviewed to ensure that the evidence underpinning both the Transport Funding and Delivery Plan and the Infrastructure Delivery Plan is robust.

- **Transport Funding and Delivery Plan:** The Hunts Grove Extension was allocated for development in the current Local Plan that was adopted in November 2015. As such it should be counted as a committed development and therefore form part of the 2040 Baseline Forecast / 'do minimum' scenario. Furthermore, any spare capacity at Junction 12 should be set aside for existing allocations and subtracted from the assessment that informs how funding costs are apportioned between the emerging allocations.
- **Infrastructure Delivery Plan:** The schedule which sets out the contributions that may be sought from the Hunts Grove Extension is noted. However, the schedule should be treated as an estimate only and should not be assigned any determinative degree of accuracy for the purposes of benchmarking S106 contributions in connection with a planning application. Crest recognises that the scheme will attract a requirement for an appropriate and proportionate package of planning obligations that will satisfy the tests set out within the CIL Regulations. The outline application for development of the site under the terms of Policy SA4 is being prepared on this basis.

Yours sincerely

Daniel Sharp

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Hunts Grove Extension Review of Transport Evidence Base

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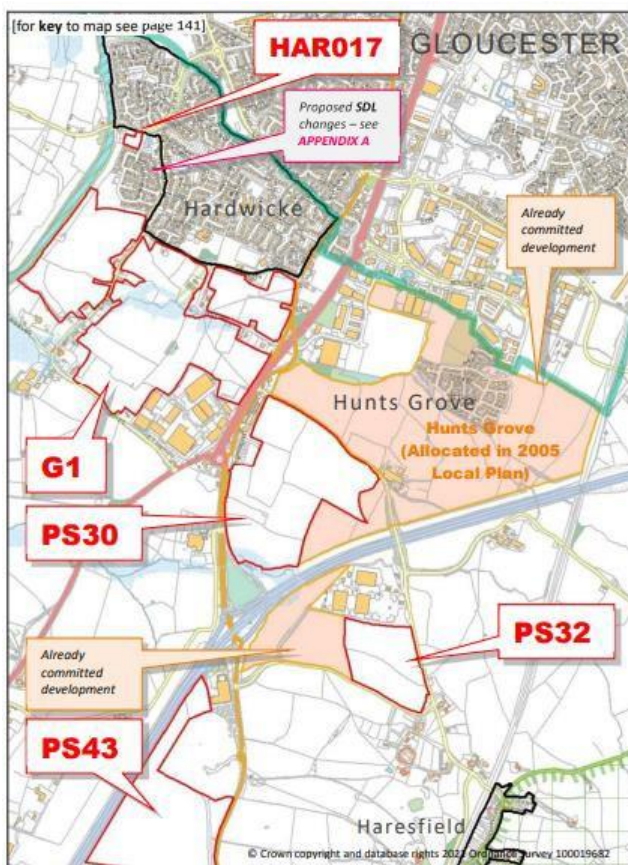
Introduction

1. Vectos is appointed by Crest Nicholson South West to provide highway and transportation advice in response to a suite of recently published Local Plan Review evidence base documents that Stroud District Council (SDC) are currently consulting on
2. The SDC Local Plan Review identifies the housing, employment, retail and community development that is required to meet local needs up until 2040.
3. The pre-submission Stroud District Local Plan document has now been published together with background documents and evidence base. It proposes to carry forward the existing Hunts Grove Extension allocation from the current Local Plan that was adopted in November 2015.
4. The existing development at Hunts Grove, which is located on land east of the A38 at Colethrop Farm, Hardwick, was originally allocated as a major mixed use development site within the Stroud Local Plan (2005). Outline planning permission for 1,750 dwellings and 5.75 hectares of employment land, together with a local centre comprising community and commercial facilities and a new primary school, was originally granted in 2008, although a third S73 planning application (LPA ref S.19/1925/VAR) is the most relevant application.
5. As set out above the extension to Hunts Grove on land south of Haresfield Lane, to the south east of Hardwicke and north of the M5 junction 12, was originally allocated in the Adopted Stroud Local Plan (Nov 2015). The site comprises approximately 34 hectares of land for 750 residential dwellings and supporting infrastructure, including landscaping and open space.
6. The SDC Local Plan Review (Pre Submission Draft) was published in May 2021 and includes the existing commitment at Hunts Grove extension which is included as PS30 Hunts Grove Extension.
7. The extension to the Hunts Grove masterplan area will deliver an increase of 750 dwellings together with the necessary supporting infrastructure, employment, social, commercial and community uses. Primary access will be achieved from the realigned Haresfield Lane which in turn joins the A38 by way of a re-engineered signal controlled gyratory. Haresfield Lane provides access to the wider Hunts Grove development.
8. Once complete the Hunts Grove development will provide a wide range of employment provision and other facilities which will become a 'Local Service Centre'. It is also intended that the Hardwicke and

Hunts Grove area will continue to be a major focus for employment provision: to protect and enhance the role as an employment ‘hub’.

9. **Figure 1** shows the location of the Hunts Grove Extension in relation to other nearby allocations.
10. Technical evidence has been updated during the summer of 2022 and this evidence has now been submitted to support the Councils Draft Plan. Consultation is currently underway with regard to this additional information which closes on Tuesday 25 October 2022.

Figure 1: Site Location - Hardwick and Hunts Grove



Context

11. In relation to decisions concerning travel and transport, it is important to recognise the core elements set out within the National Planning Policy Framework (NPPF, 2021). The three key tests that decisions should take into consideration are set out at paragraph 110, and are:
 - Have opportunities for sustainable transport modes been appropriately taken up;
 - Will safe and suitable access to the site be achieved for all people; and
 - Will the residual impact be mitigated to an acceptable degree?

12. As reflected in the Policy, there is a recognised need to shift away from traditional patterns of movement, which has been accelerated by the Covid-19 Pandemic, with an increased focus on working from home, health, community, internet shopping and deliveries, and increased awareness of health, social and environmental responsibilities. This presents an opportunity to move away from traditional models of transport planning, and instead move towards a more sustainable and contemporary approach to design.
13. This is happening already, as recently illustrated by local authorities seeking to reallocate road space in favour of pedestrians and cyclists, in order to relieve pressures on transportation and promote social distancing. The Covid-19 Pandemic has resulted in a large proportion of the population to shift to home-working, with a reliance on local services accessible via digital connectivity and active modes of travel. It is expected that this shift to home working and flexible working will continue in a post-pandemic world.
14. In addition, Industry Best Practice now suggests that the traditional approach to transport assessment, firmly rooted in a traffic focussed ‘predict & provide’ process, is no longer fit for purpose. Following a traditional approach often leads to either a conclusion that development cannot be ‘accommodated’, or that it will require highway works that are likely to be unnecessary, the consequences of which are the antithesis of what the industry is expected to achieve in terms of climate change, health, housing delivery and viability.
15. Industry bodies such as the Chartered Institute of Highways & Transportation, Town & Country Planning Association, and most recently the Department for Transport in Decarbonising Transport (July 2021), have advised that the predict and provide approach should be abandoned.
16. The industry has been moving towards a Vision & Validate approach to transport planning for some time. This approach seeks to make connections and maximise opportunities to undertake trips by sustainable modes, including public transport and it is only once these have been maximised that works to the highway network should be considered.
17. Whilst the proposed development lies to the south of Gloucester it will not be a separate development and will instead form a natural extension to the existing settlement of Hardwicke and the Hunts Grove development that is currently being built out. The Land south of Haresfield Lane site therefore offers the opportunity for a close relationship with existing facilities within the area resulting in reductions in car based travel in comparison with historic developments.

Evidence Base

18. The following documents have been submitted as an evidence base which inform the Local Plan Review. The following documents are considered to be of particular relevance to the Hunts Grove extension:
 - EB98 Traffic Forecasting Report Addendum
 - EB109 Transport Funding and Delivery Plan (July 2022)
 - EB110 Infrastructure Delivery Plan (IDP) Addendum Report (August 2022)

These documents have been reviewed in the context of the Hunts Grove Extension.

EB98 Traffic Forecasting Report Addendum April 2022 (TFRA)

19. This report provides an assessment of the traffic impacts of the revised 2021 Local Plan, and provides an update to the original Traffic Forecasting Report (TFR) produced in March 2021. The TRFA notes that the report addendum should be read in conjunction with the 2021 TFR.
20. The outputs from the Traffic Forecasting Report Addendum have been used to inform the Funding and Delivery Plan (EB109) and the Infrastructure Delivery Plan (EB110) documents. The Addendum takes account of various changes made to the site allocations originally proposed in the 2019 Draft Plan, and while the Hunts Grove allocation remains unchanged, the allocation at the Javelin Park site, to the south of M5 J12 has increased from 9 hectares of employment land in the draft Local Plan to 27 hectares in the revised Local Plan. The report indicates additional mitigation on the B4008 to the south of M5 J12 in this area. Preliminary testing in this location indicated a scheme on the scale of an upgrade to dual-carriageway standard between the Javelin Park site and M5 J12 may be necessary to accommodate development traffic.
21. The modelling approach used in the Addendum follows the same principles as set out in the TFR 2021 report. the purpose of which is to assess the impact of the proposed Local Plan site allocations on the local and strategic highway networks, and to identify a strategic mitigation strategy within the county and adjoining areas. The model is strategic in nature (Saturn Model) and not intended to provide detailed modelling analyses of individual sites or junctions. Traffic impacts of the Local Plan proposals have been assessed through the development of 2040 future year forecast scenarios that consider travel demand associated with the proposed site allocations included in the November 2021 Draft Local Plan.
22. The report notes that a package of indicative highway capacity improvements at key 'pinch-points' has been developed through collaboration with Gloucestershire County Council, Stroud District Council and Highways England (now National Highways) and assessed using the traffic model the mitigated forecasts demonstrate that *'the impacts of the proposed Local Plan sites can be largely addressed, and that the highway network can operate at similar levels of performance to the Baseline situation'*.

Do Minimum Model

23. As part of the forecasting process a 2040 Baseline Forecast, or do minimum scenario, has been developed in which the Local Plan housing and employment allocations are assumed not to be developed, but committed developments and transport schemes are included.
24. Given that the Hunts Grove Extension is an allocation (Ref SA4) within the Adopted 2015 Local Plan, the impacts of which have already been tested within the 2015 Plan, it might normally be expected that an existing allocation would be considered committed development and thus included within the Baseline/Do Minimum. In addition Policy SA4 does not include any specific provision for contributions to be made towards improvements to the Strategic Road Network (SRN) either within the policy itself, or in the supporting text.

25. We therefore consider that where an existing allocation is being rolled forward, as is the case with Policy SA4 (PS30), it should be considered as part of the baseline position against which funding requirements are to be established. The modelling process should therefore seek to establish whether part of the allocation can be delivered without any highway intervention being required, and then subtract from the total before calculating how funding costs are apportioned between the emerging allocations.

Trip Rates

26. In order to assess the impact of the various developments included within the Local Plan a number of assumptions have been made with respect of each allocated site for assumed trip generation and trip distribution. The report notes that trip generation and trip distribution for Local Plan sites has been based on vehicle trip rates that were reported to be developed and agreed between GCC, SDC, Highways England and AECOM.
27. The agreed trip rates are primarily based on rates that have been used previously in the assessment of individual developments in the relevant local area. For the Hunts Grove Extension a residential trip rate is indicated on page 43 of the TFR and is as shown in **Table 1** which results in the number of trips indicated for the 750 dwelling extension:

Table 1. Trip Rates assumed in TFRA

	Trips per household			Trips generated		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak	0.169	0.418	0.587	127	314	441
PM peak	0.387	0.219	0.606	290	164	454

28. For the reasons set out below we would suggest that while these trip rates may be historical rates used for other developments, in the context of more recent data, they might now be considered to be high and on this basis would over-estimate the impact of the proposed development on the highway network.
29. In addition, the trip rates adopted within the Strategic Transport Model exceed the rates used to support the original Outline Application for the original 1750 dwellings (LPA ref S.15/1498/VAR) as illustrated in **Extract 1** below taken from Table 2 of the original 2008 Transport Assessment that were considered acceptable at that time.

Extract 1. Approved Trip Rates

		Trip rates per household			Trips generated		
		Arrivals	Departures	Total	Arrivals	Departures	Total
Vehicle	AM peak	0.09	0.41	0.50	156	710	866
	PM peak	0.38	0.17	0.55	658	294	952

30. The extract above shows the agreed trip rates from the Transport Assessment for the approved scheme totalled 0.5 trips per household in the AM peak hour and 0.55 trips per household in the PM peak hour. These rates are lower than the trip rates used within the Strategic Model as shown in Table 1 equating to 0.587 per household in the AM peak and 0.606 in the PM peak. However it might be expected that the modelled trip rates for the Hunts Grove extension would be at least equal to, if not lower, than the approved Hunts Grove trip rates given the proposal is an extension to the existing community. Furthermore given the change in travel behaviour following the COVID-19 pandemic and an increased proportion of the working population now working from home or a 3rd place on a regular basis, along with the allocations for the wider Hardwicke area, this is likely to create increased levels of trip internalisation or containment within the Hardwicke community. It is therefore expected that forecast trip rates for the proposed extension would in fact be far lower than those assumed within the original Hunts Grove development.
31. Given the overall reduction in trip rates experienced since the COVID19 pandemic, the increased reliance on sustainable travel and a demonstrable change in travel habits we consider that it would be unrealistic to assume that household trip rates have increased since the original TA was produced, and trip rates for the Hunts Grove Extension are likely to be much lower than assumed both in the Strategic Traffic Model, and indeed within the original 2008 Transport Assessment for Hunts Grove.
32. The result is to over-estimate the impact of the Hunts Grove extension on the highway network in traffic modelling terms.

Trip distribution

33. The distribution of traffic associated with the proposed Local Plan allocation sites has been based on distributions developed and agreed between GCC, SDC, Highways England and AECOM informed by Census Journey to Work data (p45 of the TFR).
34. On this basis it is assumed that the trip distribution is based on the 2011 Census which provides details of home based work trips. While this is a reasonable approach for commuting journeys, this approach overestimates the impact of non-work trips such as education, leisure and visiting friends/family.
35. In order to provide an accurate assessment of the likely distribution of traffic from the site, separate methodologies should be applied to different journey purposes when considering the destinations of commuting and business trips to other trip purposes. For example trips from home to school or shopping trips are much more likely to be locally based journeys and of a much shorter trip length than commuting trips associated with journeys to work. Commuting journeys are therefore more likely to be long distance trips than other trip types, and applying such assumptions to all journeys is likely to over-estimate the impact of non-work trips on the highway network.
36. It is considered therefore that the use of Journey to Work data to estimate distribution of all car journeys results in the overestimation of long distance trips within the model. This increases the overall vehicle mileage on the highway network and thus increases the impact of development on the Strategic Road Network (SRN) and the required level of mitigation.

37. This runs contrary to the principle of the allocating development in the Hunts Grove and Hardwicke area, and the overall objective of achieving high levels of trips which will be contained within this area, thus reducing the impact on the SRN.

EB109 Transport Funding and Delivery Plan (July 2022)

38. This Technical Note produced by Aecom has been prepared on behalf of SDC to determine the sources of funding for major transport mitigation and identifies the amount of funding to be delivered by development allocations within the SDLP providing more detailed analysis on the costing and funding requirements for strategic highways infrastructure likely to be needed to support growth in Stroud District and adjacent authorities.

39. While the document does not address all required mitigation it focuses on three strategic mitigation packages. These three packages are identified as:

- M5 Junction 12
- M5 Junction 14
- A38 Corridor

40. These packages represent combinations of various identified mitigation schemes as highlighted in **Extract 2** below:

Extract 2. Mitigation Packages

Mitigation Package	Components
M5 J12	- Improvements to M5 J12, comprising a new grade-separated junction; - Improvements to the A38 / A430 / B4008 'Crosskeys' Roundabout; and - Improvements to the B4008 / Stonehouse junction.
M5 J14	- Improvement to M5 J14, comprising a new grade-separated junction; and - Dualling of the B4509 between M5 J14 and A38.
A38 Corridor	The A38 Corridor Package includes the following number of individual junctions which have been identified for highway capacity improvements in the TFR: - A38 / Grove Lane; - A38 at Claypits; - A38 / B4066; - A38 / B4066 Berkeley Road; - A38 / Alkington Lane; and - A38 / A4135.

41. In relation to the Hunts Grove Extension (PS30) the document identifies a funding requirement of £760,000 towards the M5 Junction 12 improvements which are identified as having a total cost of approximately £9.437m. This equates to approximately 8% of the total cost, with the remained being shared with other developments within the SDLP (57.7%) and from Neighbouring Authorities (42.3%).

42. The document apportions costs for each development based on outputs from the Strategic Transport Model using Select Link Analysis. This enables trips on the network with an origin or destination at the SDLP developments to be isolated and for the impact to be apportioned to each of the SDLP allocations. However, the overall details of the approach and select link analysis is not available in the document and cannot be verified.
43. However, given the use within the model of overly robust trip rates for the Hunts Grove Extension and a trip distribution weighted in favour of longer distance journeys would suggest that the impact of the Hunts Grove extension site has been overestimated within the traffic model. Therefore given the reliance of the FDP on the Strategic Traffic Model would suggest an overestimation of the cost burden apportioned to the Hunts Grove extension.
44. We would suggest therefore that the assessment should be revisited using these more desirable and likely model inputs which reflect current travel habits, and the proximity of the Hunts Grove Extension to a number of communal, education and employment sites. It should also take into consideration active travel measures and interventions along with public transport opportunities to achieve less reliance on the car and that movement takes place across the day and not just at peak periods.
45. Given that the Hunts Grove Extension was allocated for development in the current Local Plan adopted in November 2015, it should be counted as a committed development and therefore form part of the 2040 Baseline Forecast / 'do minimum' scenario. On this basis any element of the existing allocation that is can be delivered prior to any intervention in respect of Junction 12 should be identified first and then subtracted from the total, with the remainder informing how funding costs are apportioned between the emerging allocations.

Infrastructure Delivery Plan 2022 Addendum

46. The report provides an update to the 2021 Infrastructure Delivery Plan 2021.
47. In relation to Hunts Grove Extension (page 14) the document notes a number of pinch points on the highway network close to the Hunts Grove Extension and notes that S106 Contributions are likely to be required. The document also notes that the Aecom Funding and Delivery Plan will further address the apportionment of highway mitigation funding.
48. The document therefore pre-dates the above Funding and Delivery Plan as outlined above and notes on page 14 that "*A Funding and Delivery Plan is to be produced by Aecom on behalf of Stroud District Council to enable greater understanding of the potential to deliver a comprehensive package of improvements at Junction 12.*"
49. The report advises that it may be appropriate to secure contributions from this site towards the Junction 12 Package of Mitigation and towards 5 schemes identified within Appendix A of the report however this is subject to the recommendations of the Funding and Delivery Plan.
50. **Extract 3** shows Table 19 from Appendix A and shows the potential contribution likely from the Hunts Grove Extension towards the 5 schemes listed.

Extract 3. Hunts Grove Extension Projects

Scheme Name	Costs
Transport and Highways	
Active Travel Route - B4008 between little Haresfield (M5 J12) and Stonehouse Corridor	£330,882
A38 / Epney Road junction improvements	£91,912
St. Barnabas Roundabout improvement	£459,559
A38 / A430 / B4008 Cole Avenue junction improvement	£459,559
Contribution towards Junction 12 mitigation package	£757,282

51. Of these projects the Junction 12 mitigation package is directly addressed within the Funding and Delivery Plan as above. The St Barnabas Roundabout improvement is also noted within the FDP as being delivered by the Land at Whaddon site (ref G2). No further information is provided on the remaining three schemes although it is acknowledged that no apportionment analysis has taken place.

Summary

52. The SDC Local Plan Review identifies development that is required to meet local needs up to 2040. Vectos is appointed by Crest Nicholson South West to provide highway and transportation advice in response to a suite of recently published Local Plan Review evidence base documents which form part of the current Stroud District Council (SDC) consultation.

53. The following documents have been reviewed in the context of the Hunts Grove Extension (PS30):

- EB98 Traffic Forecasting Report Addendum
- EB109 Transport Funding and Delivery Plan (July 2022)
- EB110 Infrastructure Delivery Plan (IDP) Addendum Report (August 2022)

54. Industry best practice now advises that the predict and provide methodologies previously adopted for traffic forecasting purposes should be abandoned and that moves towards a Vision & Validate approach to transport planning should be adopted. This approach seeks to maximise opportunities to undertake trips by sustainable modes, including public transport, and it is only once these have been maximised that works to the highway network should be considered.

55. While the continued allocation of the Hunts Grove Extension (PS30) for 750 dwellings is supported, this review suggests that the methodology employed in the assessment of traffic impacts, as set out within the Traffic Forecasting Report Addendum, results in an overly robust approach and in the case of the Hunts Grove Extension adopts trip rates which are considered to be higher than would now be used, and a trip distribution weighted in favour of longer distance journeys which is likely to over-estimate the impact of non-work trips on the highway network. This would suggest that the impact of

the Hunts Grove extension site has been overestimated within the traffic model. On this basis the funding requirement identified in the FDP for the Hunts Grove Extension might also be considered to be an overestimate.

56. In addition given that the Hunts Grove Extension was allocated for development in the current Local Plan (2015), it should be considered as part of the baseline position against which additional traffic impacts need to be established. The modelling process should therefore seek to establish whether part of the allocation can be delivered without any intervention being required, and then subtract from the total before calculating how funding costs are apportioned between the emerging allocations.