TOWN AND COUNTRY PLANNING ACT 1990
(AS AMENDED BY THE PLANNING AND COMPENSATION ACT 2004)

PROOF OF EVIDENCE OF STEPHEN HAWLEY
ON BEHALF OF THE LOCAL HIGHWAY AUTHORITY

APPELLANT:	Robert Hitchins Ltd
SITE ADDRESS:	Land at Oakley Farm, Cheltenham, GL52 6PW
APPEAL REFERENCE:	APP/B1605/W/21/3273053
LOCAL PLANNING AUTHORITY:	Cheltenham Borough Council
LPA REFERENCES:	20/01069/OUT

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Appendices

Qualifications

My name is Stephen Hawley and my evidence covers the County Council's transport related evidence in relation to this appeal.

I have a Bachelor of Science Degree in Civil Engineering from the University of Wolverhampton. I am an Incorporated Engineer, a Fellow of the Institute of Highway Engineers and a Member of the Chartered Institution of Highways and Transportation.

I am the Highway Development Management Team Leader employed by Gloucestershire County Council in their statutory function as the Highway Authority. I have 22 years of experience working in the discipline of Highway Development Management.

From 1998 I was employed by Worcestershire County Council as a technician, and I became involved in development management from the year 2000, making comments on planning applications and undertaking design checks on consented schemes. From 2007 I become a lead officer commenting on major planning applications, this included new supermarkets, business parks, football stadiums and housing schemes up to 2800 dwellings. In March 2020 I joined Gloucestershire County Council as the Highways Development Management team leader where I lead a team commenting on planning applications, preparation of developer design guides and the development junior officers.

I am familiar with the appeal site having reviewed the submitted documents both at the application stage and since the appeal has been registered.

I confirm that this proof of evidence contains my true and professional opinions.

1.0 Introduction

1.1 The proposal is for up to 250 dwellings with all matters reserved for future consideration, the application was presented with a Transport Assessment and a Travel plan.

1.2 As the Highway Authority for the local highway network the application was appraised to review the capacity, safety and sustainable transport implications of the proposal.

1.3 Gloucestershire County Council made representation to Cheltenham Borough Council (LPA) following a formal consultation to application 20/01069/OUT. This application was appealed for non determination and seven putative reasons have been presented by the LPA of which reasons 3 and 7 are based on the representations of the Highway Authority.

1.4 The Local Highway Authority forms part of the Gloucestershire County Council team as a Rule 6 Party and acts as an expert witness in respect of matters pertaining to the demands on the highway network from a multimodal perspective and potential mitigation measures.

1.5 The Local Highway Authority initially commented on the application submission on the 31st July 2020, this response sought more information on the proposals in respect of the proposed footpath/cycleway, access arrangements, off-site mitigation and additional junction modelling to 2031.

1.6 Further comments were provided on the 17th August 2020, the response sought further information again in respect of the same issues raised in July 2020. Modelling to 2031 was still required.

1.7 The Appellant submitted further information to support their application in the form of the Transport Assessment Addendum. The Local Highway Authority wrote to the Local Planning Authority on the 10 February 2021 advising that any decision on the application should be deferred, as there was still a requirement for junction modelling to 2031, along with outstanding issues pertaining to all matters first raised in July 2020.

1.8 The Local Highway Authority provided its final set of comments, prior to the submission of the appeal, on the 1st April 2021. The Local Highway Authority formally

requested that the application be refused. Having requested that the application be deferred on three previous occasions to enable the Applicant to engage with the Highway Authority and resolve matters, no engagement had been forthcoming and technical notes submitted in response to the Highway's comments were inadequate to address concerns raised.

1.9 These can be found in Appendices A, B, C and D respectively.

1.10 I attended Cheltenham Borough Councils Planning Committee meeting on 20th May 2021 to assist the Committee Members with any questions / queries they had relating to the transport implications of the proposal.

2.0 National and Local Policy

2.1 The key paragraphs and points from each of the below documents have been extracted for ease of reference.

Joint Core Strategy 2015-2031

2.2 The relevant policies of the Joint Core Strategy are:

SD4

"*vi. Inclusiveness and adaptability;*
New development should provide access for all potential users, including people with disabilities, to buildings, spaces and the transport network, to ensure the highest standards of inclusive design. Development should also be designed to be adaptable to changing economic, social and environmental requirements.

vii. Movement and connectivity;
New development should be designed to integrate, where appropriate, with existing development, and prioritise movement by sustainable transport modes, both through the application of legible connections to the wider movement network, and assessment of the hierarchy of transport modes set out in Table SD4a below. It should:

- *Be well integrated with the movement network within and beyond the development itself*
- *Provide safe and legible connections to the existing walking, cycling and public transport networks;*
- *Ensure accessibility to local services for pedestrians and cyclists and those using public transport*
- *Ensure links to green infrastructure;*
- *Incorporate, where feasible, facilities for charging plug-in and other ultra-low emission vehicles;*
- *Be fully consistent with guidance, including that relating to parking provision, set out in the Manual for Gloucestershire Streets and other relevant guidance documents in force at the time.*"

INF1

"*1. Developers should provide safe and accessible connections to the transport network to enable travel choice for residents and commuters. All proposals should ensure that:*

1. *Safe and efficient access to the highway network is provided for all transport modes;*
2. *Connections are provided, where appropriate, to existing walking, cycling and passenger transport networks and should be designed to encourage maximum potential use;*
3. *All opportunities are identified and taken, where appropriate, to extend and / or modify existing walking, cycling and public transport networks and links, to ensure that credible travel choices are provided by sustainable modes.*

2. *Planning permission will be granted only where the impact of development is not considered to be severe. Where severe impacts that are attributable to the development are considered likely, including as a consequence of cumulative impacts, they must be mitigated to the satisfaction of the Local Planning Authority in consultation with the Highway Authorities and in line with the Local Transport Plan*

3. *Developers will be required to assess the impact of proposals on the transport network through Transport Assessment. The assessment will demonstrate the impact, including cumulative impacts, of the prospective development on:*
   i. *Congestion on the transport network;*
   ii. *Travel safety within the zone of influence of the development;*
   iii. *Noise and / or atmospheric pollution within the zone of influence of the development;*

4. *Where appropriate the Local Planning Authority may require applications to be accompanied by a Travel Plan that has full regard to the criteria set out in the NPPF."*

National Planning Policy Framework, July 2021

2.3 The relevant paragraphs of the NPPF 2021 are considered relevant:

Paragraph 110

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
b) safe and suitable access to the site can be achieved for all users;
c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and
d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."

Paragraph 111

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Paragraph 112

"Within this context, applications for development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
d) *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Local Transport Plan 4

2.4 The following are relevant policies from the Local Transport Plan.

Policy LTP PD0.2 – Local Environmental Protection

"GCC will work with District Councils and other partners; to minimise the impact of transport on landscapes, townscapes, heritage assets and the wider historic environment; to protect and enhance the water environment, air quality, soils and agricultural resources; to reduce the risk of flooding and the levels of noise pollution; to achieve biodiversity net gain and conserve geodiversity and the historic environment, from traffic or improvements on the highway network.
GCC will do this by implementing the following policy proposals:
Promote transport schemes which tackle traffic congestion in Gloucestershire's historic villages, towns and city."

Policy LTP PD 0.3 – Maximising Investment in a Sustainable Transport Network

"GCC will work with partners to ensure the delivery of a financially sustainable transport network, through maximising opportunities for inward investment.
GCC will do this by implementing the following policy proposals:
Promote schemes that encourage and enable active and sustainable travel options, whilst taking due regard for vulnerable users and the Equality Act."

Policy LTP PD 0.4 – Integration with Land Use Planning and New Development

"GCC will work with local planning authorities and developers to develop a clear spatial strategy for Gloucestershire based on our long term sustainable

transport and growth ambitions, which will deliver large scale development, designed and developed in a sustainable manner, ensuring that sustainable transport principles are embedded into the planning, design and future development of these strategic sites as a core fundamental feature from the outset. This will deliver a step change in sustainable land use planning, ensuring that all new development is located in places with high levels of sustainable transport accessibility and services, and reduces car dependency. GCC will support development that enables sustainable travel choices and will require that developers of new medium/large sites submit site master plans and ensure that transport considerations are integral to the design of schemes and contribute to making high quality places, in accordance with Gloucestershire's Climate Change Strategy and the emerging Spatial Strategy, Carbon Reduction Targets, NPPF and MfGS.

GCC will do this by implementing the following policy proposals:

- *Development will be resisted where the impact on the transport network requires retrofitting or where safe and suitable access is not provided. GCC will support new compact, high density mixed use development of new sites already served by public transport over other more remote and inherently less sustainable locations."*

Local Transport Note 1/20 Cycle Infrastructure Design

2.5 The following sections of the LTN 1/20 are considered relevant:

<u>Equality and access assessments</u>

"4.5.11 Local authorities are bound by the Equality Act 2010 in discharging their functions, which includes managing their road networks. Designers should provide infrastructure that is accessible to all, and the dimensions and other features set out in this guidance should help ensure that their designs comply with the Public Sector Equality Duty. An Access Audit should be undertaken of all proposals to ensure that a scheme meets the needs of those with protected characteristics under the Equality Act 2010, particularly people with a disability. The Access Audit (also formerly known as a DDA audit, Disability Discrimination Act Audit or Disabled Access Audit) is an assessment of a building, a street environment or a service against best-

practice standards to benchmark its accessibility for disabled people. It may form part of an overall Equality Impact Assessment."

5.5 Cycle lane and track widths

"5.5.1 Table 5-2 sets out the recommended absolute and desirable minimum widths for different types of provision, including recommended additional width to accommodate higher cycle flows.

5.5.2 The absolute minimum width should only be used for sections where there is a physical constraint on an existing road. Designers should take account of the potential loss of width of usable track due to drainage gullies where these reduce the effective width (as cyclists will avoid overrunning gully gratings).

5.5.3 Where a route is also used by pedestrians, separate facilities should be provided for pedestrian and cycle movements. However, away from the highway, and alongside busy interurban roads with few pedestrians or building frontages, shared use might be adequate (see Chapters 6 and 8). Such facilities should be designed to meet the needs of cycle traffic, however - including its width, alignment and treatment at side roads and other junctions. Conversion of existing footways to shared use should only be considered when options that reuse carriageway or other (e.g. verge) space have been rejected as unworkable."

Table 5-2: Cycle lane and track widths

Cycle Route Type	Direction	Peak hour cycle flow (either one way or two-way depending on cycle route type)	Desirable minimum width* (m)	Absolute minimum at constraints (m)
Protected space for cycling (including light segregation, stepped cycle track, kerbed cycle track)	1 way	<200	2.0	1.5
		200-800	2.2	2.0
		>800	2.5	2.0
	2 way	<300	3.0	2.0
		>300-1000	3.0	2.5
		>1000	4.0	3.0
Cycle lane	1 way	All – cyclists able to use carriageway to overtake	2.0	1.5

*based on a saturation flow of 1 cyclist per second per metre of space. For user comfort a lower density is generally desirable.

Longitudinal gradient

"5.9.7 Unlike motor traffic, human physiology means that people can cycle steep gradients that are fairly short but are not capable of maintaining high levels of effort for longer distances. Cycle routes should therefore, where possible, be designed in such a way that the steepness and maximum length of longitudinal gradients meets the requirements of Table 5-8.

Table 5-8: Maximum length for gradients

Gradient %	Desirable maximum length of gradient (m)
2.0	150
2.5	100
3.0	80
3.5	60
4.0	50
4.5	40
5.0	30

5.9.8 Cycle routes along existing roads and paths will usually have to follow the existing gradient although there may be opportunities for signed diversions onto alternative routes to avoid the steepest uphill gradients, or to reduce gradients through earthworks where sufficient space is available.

5.9.9 As well as the length of the gradient, the speed of travel is another important factor to consider. Steep gradients can lead to high speeds for descending cyclists or low speeds for climbing cyclists, which can create hazards for all users of the route. Stopping distances also increase on down gradients in excess of 3%.

5.9.10 Where height differences at new build sites suggest longer lengths of gradients than those given in Table 5-8 earthworks designs should be adjusted or the horizontal alignment adjusted to limit the length or severity of the gradient. Level sections of 5.0m minimum length can be used between gradients to achieve compliance with Table 5-8."

6.5 Shared use

"6.5.1 For the purpose of this document shared use is defined as a route or surface which is available for use by both pedestrians and cyclists. Within the highway, it is normally created by converting the footway using the power in Section 65 of the Highways Act 1980 (see Appendix C). The issues around separating pedestrians and cyclists on off-highway routes are discussed in Chapter 8, section 8.2.

6.5.2 The term 'shared use' has been used to describe both unsegregated and segregated routes, the latter typically being achieved with a white line marking to TSRGD diagram 1049B to separate pedestrians and cyclists. This form of separation is not well observed, and pedestrians walking on or crossing the cycle side can encounter greater conflict than with unsegregated facilities due to the increased cycling speeds that can result from the designation.

6.5.3 White line segregation is not recommended and the term 'shared use' within this document refers only to facilities without any marked separation between pedestrians and cyclists. Where cycle tracks are provided at the same level as a pedestrian route, they should be clearly designed and marked as cycle tracks - see Section 6.2 and Chapter 8.

6.5.4 In urban areas, the conversion of a footway to shared use should be regarded as a last resort. Shared use facilities are generally not favoured by either pedestrians or cyclists, particularly when flows are high. It can create particular difficulties for visually impaired people. Actual conflict may be rare, but the interactions between people moving at different speeds can be perceived to be unsafe and inaccessible, particularly by vulnerable pedestrians. This adversely affects the comfort of both types of user, as well as directness for the cyclist.

6.5.5 Where a shared use facility is being considered, early engagement with relevant interested parties should be undertaken, particularly those representing disabled people, and pedestrians and cyclists generally. Engaging with such groups is an important step towards the scheme meeting the authority's Public Sector Equality Duty.

6.5.6 Shared use may be appropriate in some situations, if well-designed and implemented. Some are listed below:

- *Alongside interurban and arterial roads where there are few pedestrians;*
- *At and around junctions where cyclists are generally moving at a slow speed (see Figure 6.27), including in association with Toucan facilities;*
- *In situations where a length of shared use may be acceptable to achieve continuity of a cycle route; and*
- *In situations where high cycle and high pedestrian flows occur at different times (also see Figure 6.27).*

6.5.7 Recommended minimum widths of shared use routes carrying up to 300 pedestrians per hour are given in Table 6-3. Wherever possible, and where pedestrian flows are higher, greater widths should be used to reduce conflict.

Table 6-3: Recommended minimum widths for shared use routes carrying up to 300 pedestrians per hour

Cycle flows	Minimum width
Up to 300 cyclists per hour	3.0m
Over 300 cyclists per hour	4.5m

6.5.8 Designers should be realistic about cyclists wanting to make adequate progress. The preferred approach for shared use routes is therefore to provide sufficient space so that cyclists can comfortably overtake groups of pedestrians and slower cyclists.

6.5.9 Research shows that cyclists alter their behaviour according to the density of pedestrians – as pedestrian flows rise, cyclists tend to ride more slowly and where they become very high cyclists typically dismount.30 It should therefore rarely be necessary to provide physical calming features to slow cyclists down on shared use routes, but further guidance on this, and reducing conflict more generally, is given in Chapter 8, section 8.2."

Inclusive Mobility (15th December 2015)

2.5 The following sections of Inclusive Mobility are considered relevant:

Walking distances

"Walking distances were researched in some detail in the late 1980s and, based on the findings from these studies, the following are recommended:

These figures are average measures; there is a lot of variation between individuals. Gradients, weather conditions, whether there are handrails etc, will also affect the distances people are able to walk. US regulations, for example, note that on distances over 100 feet (30m) disabled people are apt to rest frequently. These regulations suggest that to estimate travel times over longer distances allowance should be made for two minutes rest time every 30 metres.

Impaired group	***Recommended distance limit without a rest***
Wheelchair users	*150m*
Visually impaired	*150m*
Mobility impaired using stick	*50m*
Mobility impaired without walking aid	*100m*

Research based on a follow-up study to the London Area Travel Survey found that of all the people with a disability who were able to walk at all, approximately 30 per cent could manage no more than 50 metres without stopping or severe discomfort and a further 20 per cent could only manage between 50 and 200 metres."

Manual for Gloucestershire Streets July 2020

2.6 The following sections of MfGS are considered relevant:

Vertical Alignment

The Developer must consider the following when designing vertical curves on new developments. Generally, the maximum and minimum gradients allowable on new developments will be as detailed within the table below:

Category	Maximum Gradient	Minimum Gradient
All Streets	1:20 (5%), but consideration give to 1:12	1:100
Active Travel Corridors	1:20 (5%)	1:100

Where a 1 in 12 gradient is proposed no length shall exceed 30m.

For clarity the gradient tolerances apply to private driveways and proposed streets.

3.0 Consideration of Key Topics

3.1 The Highway Authority's position can be summarised into the below topics. These headings will form the topics where evidence will be presented in this Proof of Evidence.

- Network Wide Assessment
- Harp Hill/Hewlett Road/Priors Road – Design and Safety
- Pedestrian and Bicycle Access off Priors Road
- Off Site Route along Prior Road to Whaddon Road
- Access to Public Transport Services
- Illustrative vehicle access
- Gradient of Streets on Site
- Travel Plan

4.0 Process of Assessing the Application

4.1 In 2019 a Transport Assessment Scoping Note was provided to the Highway Authority, this is considered to represent good practice. The Note was assessed and agreed.

4.2 The planning application was submitted in 2020.

4.3 The pre application discussion proposed that a 5 year assessment from the date of the application. The submitted TA scoping paper assumed submission in 2019 and therefore a 2024 assessment window. This agreement was made in error and all subsequent responses to the application looked to address this matter, seeking further junction assessments to 2031. As the site is not an allocated development site within the Joint Core Strategy 2015-2031 or the Cheltenham Plan, it is essential that the cumulative impact of development on the highway network does not prejudice the delivery of Development Plan allocations and therefore needs to cover the Plan period.

4.4 This approach accords with the guidance within National Planning Practice Guidance paragraph 42-014-20140306 which advises "*At the decision-taking stage this may require the developer to carry out an assessment of the impact of those adopted Local Plan allocations which have the potential to impact on the same sections of transport network as well as other relevant local sites benefitting from as yet unimplemented planning approval."*

4.5 The Highway Authority indicated in its first consultation response 31st July 2020 that an assessment of impact was needed for 2031. This position was repeated in the two subsequent comments and was finally recognised by the Applicant's consultant, PFA, in their note dated 5th March 2021 that a 2031 assessment would be carried out.

4.6 A request for the 2031 turning flow data from the Highway Authority's Saturn model was received on 5th June 2021.

4.7 On 16th June 2021 a Purchase Order was received from PFA for the model outputs.

4.8 On 6th July 2021 The Highway Authority provided PFA with the requested outputs.

4.9 On the 7th July 2021 the Planning Inspectorate's EIA and Land Rights Manager issued a letter pursuant to s25 of the EIA Regulations advising that an assessment of the cumulative traffic impact to 2031 was required (Appendix I).

4.10 In order to help narrow the issues a meeting was held between PFA and the Highway Authority on 30th June 2021 where PFA agreed to undertake further junction capacity assessment for 2031. A note was provided following that meeting dated 6th July 2021, but this does not commit to updating the Transport Assessment or the EIA statement.

4.11 The Highway Authority notes the transport evidence base that underpins the adopted JCS 2015 and 2031 identified key corridors in the locality of this proposal, and significantly identifies that the junction of A40 London Road / Hales Road will be operating over capacity in 2031 with the JCS allocations before this development is applied. An extract from the submitted evidence base in provided below for ease of reference.

Figure 63 – Corridor 8 Ratios of Flow to Capacity – DM and DS7

Junction Name	Ratios of Flow to Capacity			
	AM Peak		PM Peak	
	Do Minimum	Do Something	Do Minimum	Do Something
M5/ A40 (Junction 11)	93.7%	99.6%	92.0%	93.8%
A40/ B4063 Roundabout Arle Court	184.7%	105.4%	111.3%	102.2%
A40/ Princess Elizabeth Way Roundabout	99.1%	66.5%	92.6%	79.2%
A40 Lansdown Rd / B4633 Gloucester Rd	100.0%	89.1%	100.9%	98.1%
A40 / Hatherley Rd	92.6%	75.0%	84.1%	80.4%
A40 / Queen's Rd	32.5%	35.3%	43.0%	39.5%
A40 Suffolk Rd / Bath Road	95.4%	68.2%	70.2%	59.6%
A40 Thirlestaine Rd / Old Bath Rd Mini Rbt	53.4%	44.3%	35.6%	31.7%
A40 London Rd / Hales Road	97.4%	97.9%	102.1%	100.2%

4.12 Industry guidance is that for a signal-controlled junction the theoretical capacity is 0.90 or 90%. It is clear from figure 63 above that this junction will be operating significantly over capacity without this development. It therefore follows that the increased demands from this appeal proposal will further worsen the forecast capacity shortcoming.

4.13 The Transport Assessment, appendix L, indicates that the appellant concludes from that in the AM peak a further 49 two way trips will pass through the A40 London Road / Hales Road junction and 42 in the PM.

4.14 The Highway Authority has therefore sought further junction assessment until 2031 for the junctions of:

1. B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout
2. B4075 Priors Road / Redmarley Road Traffic Signals
3. B4075 Priors Road / Bouncers Lane Priority Junction
4. B4075 Priors Road / B4632 Prestbury Road Priority Junction
5. B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout
6. A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals
7. A40 London Road / Greenway Lane / Ryeworth Road / Copt Elm Road Traffic Signals

4.15 These junctions reflect the junctions originally needed for assessment by the appellant in the TA scoping note which was carried forward into the Transport Assessment.

4.16 The Appellant has challenged the output from the Saturn Model having compared the outputs to that observed. A meeting took place on the 19th July 2021. The Highway Authority considers that the Saturn model to be suitable to assess strategic matters and as such remains a valid tool, but in the instance of this development proposal the model lacks the detailed network coverage resulting in the assumptions it applies make it unsuitable for extracting turning movement data for individual junctions. Whilst options exist to manually adjust the model it does introduce a degree of subjectivity into the assessment.

4.17 The Highway Authority therefore agrees to the use of the appellants observed data from September 2019 subject to a TEMPRO growth factor being applied to allow for a 2031 assessment. Given the local plan assumptions for this area of Cheltenham this approach is considered to be reasonable and provides a transparent approach

4.18 The Appellant provided a further technical note on 23rd July 2021 titled “2031 Junction Capacity Assessment Report” dated July 2021. This note provides details of the potential development impact in 2031 by comparing with and without development scenarios at the previously referred to junctions. The note also includes the agreed TEMPRO growth factors.

4.19 The Highway Authority have concluded that the development would place further demands on an already congested network and the level of assessment provided does not account for the totality of the allocated growth in the local plan.

4.20 It is therefore considered that a severe impact would arise as a result of this proposal and no mitigation is proposed to address this position.

5.0 Analysis/Assessment

Introduction

5.1 A table is provided in Appendix E which simplifies the report to highlight the junctions that the Highway Authority considers to demonstrate a severe impact and what the impact is. The comments round queue and delay to the nearest whole number.

5.2 The Junctions 9 user guide (the software manual) says "*The RFC provides a basis for judging the acceptability of junction designs and typically an RFC of less than 0.85 is considered to indicate satisfactory performance. This depends however on the context of the study and so the user's own judgement is also required*."

5.3 The Junctions 9 user guide also says "*At the point where the demand is close to capacity (i.e. RFC is around 1.0), the throughput is less than both the demand and the capacity. This is due to the random nature of traffic arrivals and random queueing theory. When the RFC is close to 1.0, this randomness is most noticeable and means that vehicles may randomly bunch up and cause momentary queueing, which results in the throughput being less than the theoretically available capacity. At lower flow rates, this randomness has little effect, and at higher flow rates, there is likely to be continuous queueing which will negate any randomness*."

5.4 This means that the consistency of traffic flow is affected and the actual through put is less that the model believes suggesting an underestimation of demand.

5.5 The Level of service (LoS) should also be considered, this looks at the profile of the queue and is a qualitive measure of performance. This summarises performance from A-F as detailed below.

A = Free flow
B = Reasonably free flow
C = Stable flow
D = Approaching unstable flow
E = Unstable flow
F = Forced or breakdown flow

5.6 In practice junctions operating at E or F characteristic suggests that the junction is operating at capacity.

Network Wide Assessment

1) B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout

5.7 This junction has been tested with a junction alteration which the appellant promotes to mitigate the impact, as such different geometries have been applied to the model. The suitability of the improvement from a design and safety perspective is address in section 6.0 of this proof of evidence.

PFA 2031 Assessment extracts

Table 2.1: B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout Junctions 9 Results – AM Peak Hour

Scenario	Arm	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	3.0	11.40	0.75
	B4075 Hales Road	2.2	12.47	0.69
	Hewlett Road	0.7	6.27	0.40
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	37.2	144.19	1.01
	Harp Hill	10.2	121.39	0.95
	Internal (EB)	1.4	7.26	0.58
2031 Forecast Year + Proposed Development	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	3.1	11.74	0.76
	B4075 Hales Road	2.3	12.91	0.70
	Hewlett Road	0.7	6.40	0.41
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	49.4	186.28	1.03
	Harp Hill	58.5	549.74	1.16
	Internal (EB)	1.5	7.55	0.60
2031 Forecast Year + Proposed Development (with capacity improvements to Harp Hill)	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	3.6	13.13	0.79
	B4075 Hales Road	2.3	13.24	0.70
	Hewlett Road	0.7	6.40	0.41
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	49.4	186.27	1.03
	Harp Hill	4.0	37.47	0.81
	Internal (EB)	1.5	7.73	0.60

Table 2.2: B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout Junctions 9 Results – PM Peak Hour

Scenario	Arm	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	1.0	5.55	0.50
	B4075 Hales Road	2.2	10.89	0.69
	Hewlett Road	1.5	9.83	0.60
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	2.2	12.18	0.69
	Harp Hill	1.8	21.11	0.64
	Internal (EB)	4.1	15.29	0.81
2031 Forecast Year + Proposed Development	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	1.1	5.72	0.52
	B4075 Hales Road	12.5	61.58	0.97
	Hewlett Road	8.1	56.12	0.93
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	2.7	14.56	0.73
	Harp Hill	2.4	26.16	0.71
	Internal (EB)	5.0	18.27	0.84
2031 Forecast Year + Proposed Development (with capacity improvements to Harp Hill)	**B4075 Hales Road / Hewlett Road Roundabout (west roundabout)**			
	Internal (WB)	1.1	5.70	0.52
	B4075 Hales Road	12.6	62.08	0.97
	Hewlett Road	8.2	56.40	0.93
	B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)			
	B4075 Priors Road	2.7	14.56	0.73
	Harp Hill	1.1	12.04	0.53
	Internal (EB)	5.0	18.26	0.84

5.7 The model indicates there is a significant impact in both the AM and PM peak hours.

5.8 In the AM Priors Road sees an increase in queue of 70m taking it to a total of 284m from 214m, and delay increase of 42 seconds taking it from 144 to 186 seconds.

5.9 In the PM Hales Road sees an increase in queue of 60m taking it to 72m from 12m. Delay increases by 51 seconds from 11 seconds to 62 seconds. Additionally, the RFC indicates that this arm would operate within capacity without the development.

5.10 In the PM Hewlett Road sees an increase in queue of 39m taking it to 47m from 8.6m. Delay increases by 47 seconds from 10 seconds to 56 seconds. Additionally, the RFC indicates that this arm would operate within capacity without the development.

5.11 The LoS shows E (unstable flow) and F (forced or breakdown flow) of flow in the junction with and without the development.

5.12 The appellant concludes that Harp Hill has been addressed, and notes that there are some increases in queuing, para 2.4 in 2031 Assessment Note. They do not provide any further commentary on this matter.

5.13 The Highway Authority concludes that the additional delay and queuing is significant, which is likely to result in driver frustration and potential rat running on the wider network as trips are diverted to avoid the queues.

5.14 It is also significant that the AM impact on Priors Road increases the queue length to the Junction of Redmarley Road which is commented on in paragraph 5.16 below.

2) B4075 Priors Road / Redmarley Road Traffic Signals

PFA 2031 Assessment extract

Tables 3.1 and 3.2 set out the LinSig results for each of the assessment scenarios during the AM peak and PM peak hours for the B4075 Priors Road / Redmarley Road Traffic Signals. The LinSig output is provided at **Appendix E**.

Table 3.1: B4075 Priors Road / Redmarley Road Traffic Signals LinSig Results – AM Peak Hour

Scenario	Arm	Mean Max Queue (PCU)	Average Delay (sec/PCU)	Deg Sat (%)
2031 Forecast Year	B4075 Priors Road (North)	14.0	19.7	70.2%
	Redmarley Road	5.8	43.5	66.1%
	B4075 Priors Road (South)	6.6	15.0	62.0%
2031 Forecast Year + Proposed Development	B4075 Priors Road (North)	14.2	19.9	70.9%
	Redmarley Road	5.8	43.6	66.5%
	B4075 Priors Road (South)	7.0	14.8	64.2%

Table 3.2: B4075 Priors Road / Redmarley Road Traffic Signals LinSig Results – PM Peak Hour

Scenario	Arm	Mean Max Queue (PCU)	Average Delay (sec/PCU)	Deg Sat (%)
2031 Forecast Year	B4075 Priors Road (North)	17.3	42.6	87.9%
	Redmarley Road	7.2	52.1	82.2%
	B4075 Priors Road (South)	10.9	21.8	86.9%
2031 Forecast Year + Proposed Development	B4075 Priors Road (North)	18.2	43.1	88.8%
	Redmarley Road	8.2	61.0	88.6%
	B4075 Priors Road (South)	10.9	21.7	87.3%

5.15 The appellants assessment in section 3 of the 2031 Assessment indicates that the junction will operate in capacity in 2031 with the development. Whilst there is some erosion of capacity the Highway Authority does not consider that to represent a severe impact.

5.16 However, the assessment needs to account for the additional queuing on Priors Road in the AM resulting from the Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout. The predicted 284m queue would end at the splitter island on Priors Road on the south side of Redmarley Road, this means that there is not capacity to allow vehicles on the other arms to enter Prior Road (south) and they would be unable to be released from their own stop lines. The result would be increased queue and delay which is not reflected in the appellants assessment.

5.17 Similarly, the PM queue predicted from the junction of Priors Road and Bouncers Lane as described in paragraph 5.20 below would also limit the release of traffic from Redmarley Road and Priors Road (south).

5.18 Whilst the 2031 Assessment shows the junction operating in capacity there is little spare capacity available, as such any blocking back and the inability to release the other arms is likely to see a worsening of capacity over the 90% theoretical capacity threshold.

5.19 This junction therefore is a matter of concern in the circumstances explained and given this the 2031 assessment note cannot be relied on for this junction.

3) B4075 Priors Road / Bouncers Lane Priority Junction

PFA 2031 Assessment extract

Table 4.1: B4075 Priors Road / Bouncers Lane Priority Junction - Junctions 9 Results – AM Peak Hour

Scenario	Movement	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**B4075 Priors Road / Bouncers Lane Priority Junction (South)**			
	Bouncers Lane to B4075 Priors Road (South)	0.1	7.41	0.12
	B4075 Priors Road (South) to B4075 Priors Road (North) / Bouncers Lane	2.8	25.24	0.73
	B4075 Priors Road / Bouncers Lane Priority Junction (North)			
	Bouncers Lane to B4075 Priors Road (North)	0.1	11.69	0.06
	B4075 Priors Road / Bouncers Lane Priority Junction (East)			
	Internal to Bouncers Lane (North)	0.1	6.61	0.05
	Bouncers Lane (North) to Bouncers Lane (South) / Internal	0.1	7.05	0.04
2031 Forecast Year + Proposed Development	**B4075 Priors Road / Bouncers Lane Priority Junction (South)**			
	Bouncers Lane to B4075 Priors Road (South)	0.1	7.44	0.12
	B4075 Priors Road (South) to B4075 Priors Road (North) / Bouncers Lane	3.8	29.99	0.78
	B4075 Priors Road / Bouncers Lane Priority Junction (North)			
	Bouncers Lane to B4075 Priors Road (North)	0.1	11.80	0.06
	B4075 Priors Road / Bouncers Lane Priority Junction (East)			
	Internal to Bouncers Lane (North)	0.1	6.69	0.05
	Bouncers Lane (North) to Bouncers Lane (South) / Internal	0.1	7.13	0.05

Table 4.2: B4075 Priors Road / Bouncers Lane Priority Junction Junctions 9 Results – PM Peak Hour

Scenario	Movement	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**B4075 Priors Road / Bouncers Lane Priority Junction (South)**			
	Bouncers Lane to Priors Road (South)	0.1	6.64	0.11
	Priors Road (South) to Priors Road (North) / Bouncers Lane	33.8	140.55	1.01
	B4075 Priors Road / Bouncers Lane Priority Junction (North)			
	Bouncers Lane to Priors Road (North)	0.0	9.87	0.01
	B4075 Priors Road / Bouncers Lane Priority Junction (East)			
	Internal to Bouncers Lane (North)	0.1	7.61	0.10
	Bouncers Lane (North) to Bouncers Lane (South) / Internal	0.0	7.34	0.01
2031 Forecast Year + Proposed Development	**B4075 Priors Road / Bouncers Lane Priority Junction (South)**			
	Bouncers Lane to Priors Road (South)	0.1	6.73	0.11
	Priors Road (South) to Priors Road (North) / Bouncers Lane	48.2	196.84	1.03
	B4075 Priors Road / Bouncers Lane Priority Junction (North)			
	Bouncers Lane to Priors Road (North)	0.0	10.06	0.01
	B4075 Priors Road / Bouncers Lane Priority Junction (East)			
	Internal to Bouncers Lane (North)	0.1	7.65	0.10
	Bouncers Lane (North) to Bouncers Lane (South) / Internal	0.0	7.37	0.01

5.20 In the PM Priors Road (South) to Priors Road (North) / Bouncers Lane sees an increase in queue length by 83m rising from 194m to 277m. Delay increases by 56 seconds from 141 seconds to 197 seconds.

5.21 The LoS shows F (forced or breakdown flow) of flow in the junction with and without the development.

5.22 It can be seen from the observed traffic count data from September 2019 that approximately two thirds of vehicles approaching this junction from the South turn right leading to a backing up of this junction beyond the capacity of the ghost lane and taking it to the junction of Redmarley Road.

5.23 The operational capacity of Redmarley Road is therefore impacted on as a result of the queue experienced at this junction as a result.

4) <u>B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout</u>

<u>PFA 2031 Assessment extract</u>

Table 6.1: B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout Junctions 9 Results – AM Peak Hour

Scenario	Arm	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**West Mini Roundabout**			
	Westbound (Internal)	0.0	15.20	0.84
	B4632 Prestbury Rd	1.5	11.97	0.60
	B4075 Tatchley Ln	1.3	15.67	0.58
	East Mini Roundabout			
	Deep Street	2.4	9.49	0.71
	Blacksmiths Lane	0.0	21.00	0.02
	Bouncers Lane	19.5	186.48	1.00
	Eastbound (Internal)	0.0	3.97	0.26
2031 Forecast Year + Proposed Development	**West Mini Roundabout**			
	Westbound (Internal)	0.0	16.06	0.86
	B4632 Prestbury Rd	1.5	12.33	0.60
	B4075 Tatchley Ln	1.4	16.01	0.59
	East Mini Roundabout			
	Deep Street	2.4	9.54	0.71
	Blacksmiths Lane	0.0	21.15	0.02
	Bouncers Lane	35.1	310.78	1.06
	Eastbound (Internal)	0.0	3.96	0.26

Table 6.2: B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout Junctions 9 Results – PM Peak Hour

Scenario	Arm	Max Queue (Veh)	Max Delay (sec/Veh)	Max RFC
2031 Forecast Year	**West Mini Roundabout**			
	Westbound (Internal)	0.0	7.63	0.60
	B4632 Prestbury Rd	1.2	10.29	0.55
	B4075 Tatchley Ln	12.1	93.72	0.95
	East Mini Roundabout			
	Deep Street	0.7	4.93	0.42
	Blacksmiths Lane	0.0	9.60	0.03
	Bouncers Lane	10.9	71.30	0.93
	Eastbound (Internal)	0.0	5.12	0.37
2031 Forecast Year + Proposed Development	**West Mini Roundabout**			
	Westbound (Internal)	0.0	7.98	0.62
	B4632 Prestbury Rd	1.3	10.42	0.56
	B4075 Tatchley Ln	16.8	124.75	0.98
	East Mini Roundabout			
	Deep Street	0.7	4.96	0.43
	Blacksmiths Lane	0.0	9.68	0.03
	Bouncers Lane	13.5	86.96	0.95
	Eastbound (Internal)	0.0	5.12	0.37

5.24 In the AM peak hour, the East Mini Roundabout arm for Bouncers Lane sees and increase in queue by 90m from 112m to 202m. The additional delay is 124 seconds which rises from 186 seconds to 311 seconds.

5.25 The appellant comments in 6.2 if the 2031 Assessment that *"As the junction is operating over capacity in the AM peak hour, any additional traffic will only exacerbate the situation resulting in increased queuing and the worsening of overall junction*

performance." The Highway Authority agrees with this comment and considers it to be applicable to other junctions in the assessment.

5.26 The LoS shows F (forced or breakdown flow) in the junction with and without the development.

5) A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals

PFA 2031 Assessment (corrected by PFA in report V2.0)

Table 7.~~15~~1: A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals LinSig Results – AM Peak Hour

Scenario	Arm	Mean Max Queue (PCU)	Average Delay (sec/PCU)	Deg Sat (%)
2031 Forecast Year	A40 London Road	61.4	265.7	110.8%
	A40 Old Bath Road	67.0	252.2	110.5%
	A435 London Road	44.7	234.0	108.0%
	B4075 Hales Road	46.6	255.2	109.2%
2031 Forecast Year + Proposed Development	A40 London Road	69.48.6	311.5273.7	113.81.6%
	A40 Old Bath Road	72.58.5	275.2304.5	112.14.0%
	A435 London Road	52.48.2	289.14.8	111.7.6%
	B4075 Hales Road	61.842.5	330.1281.7	114.40.3%
2031 Forecast Year + Proposed Development with Travel Plan	A40 London Road	69.4	311.5	113.8%
	A40 Old Bath Road	71.9	272.6	111.9%
	A435 London Road	52.4	289.1	111.7%
	B4075 Hales Road	57.2	305.2	112.7%

Table 7.2~~16~~: A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals LinSig Results – PM Peak Hour

Scenario	Arm	Mean Max Queue (PCU)	Average Delay (sec/PCU)	Deg Sat (%)
2031 Forecast Year	A40 London Road	68.69.4	273.7311.5	111.63.8%
	A40 Old Bath Road	78.52.5	304.5275.2	114.02.1%
	A435 London Road	58.22.4	284.89.1	111.67%
	B4075 Hales Road	42.561.8	281.7330.1	110.34.4%
2031 Forecast Year + Proposed Development	A40 London Road	76.5	313.9	114.3%
	A40 Old Bath Road	87.7	333.5	116.1%
	A435 London Road	67.7	343.4	115.6%
	B4075 Hales Road	52.5	348.0	114.9%
2031 Forecast Year + Proposed Development with Travel Plan	A40 London Road	74.9	306.2	113.7%
	A40 Old Bath Road	85.1	323.5	115.4%
	A435 London Road	67.3	341.5	115.4%
	B4075 Hales Road	50.3	333.5	113.9%

5.27 This junction is already forecast to operate over capacity both in the JCS transport evidence as presented above in paragraph 4.11, and in the 2031 assessment without this development. The 2031 scenario shows significant queuing and delay on all arms of this junction, and this is worsened with the appellants proposals. Whilst appendix E presents the fully comparison the proposal sees queuing increase up 87m and delay of up to 75 seconds. Delay rises to nearly 6 minutes and queues up to 504m.

5.28 The appellant again acknowledges the position in 7.3 of the 2031 Assessment saying *"The results show that junction is operating over capacity in both the AM and PM*

peak hours in all scenarios. As the junction is operating over capacity, any additional traffic will only exacerbate the situation resulting in increased queuing and the worsening of overall junction performance.", again the Highway Authority agrees with this comment.

5.29 The additional travel plan rows included in the above tables are not accepted and this is explained in paragraphs 5.31-5.32 below.

Implications

5.30 Mitigation has been presented for the junction of Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout. The is presented in drawing H628/04 revision C. This proposal mitigates the immediate impact on the queue on Harp Hill which is predominately associated with vehicle departures in the AM peak period. This has been assessed using "Junctions 9" which is an industry standard appraisal tool for junctions of this nature. However, the junction mitigation has not looked at the impact across all arms of the junction and additional queuing and delay occurs on the arms of Priors Road, Hales Road and Hewlett Road. Paragraph 60 to 68 of this Proof of evidence details the extend of the impact. Not mitigation is presented to address these harms, and as such the presented scheme does not provide mitigation for the junction as a whole which results from the development impact.

5.31 No adjustment should be made to the trip rates to account for the travel plan as it would not be appropriate to do so in this instance. Appendix J of the original TA contains the TRICs output which has informed the anticipated vehicle demand, this shows that of the 15 days of data used sites had active travel plans of 8 of those days, it is therefore reasonable to say that the trip rate has already accounted for the benefits that a travel plan would bring.

5.32 The Highway Authority has undertaken a sensitivity check using similar developments within TRICs which have not been subject to travel plans and applied a 10% reduction to replicate the benefits a TP would typically bring. That shows that the original TA trip rates are what would be expected with a successfully implemented travel plan. The original trip rates and proposed can be found in appendices F and G respectively. The original AM departure rate is 0.374 and the same rate without a travel plan is 0.400, per dwelling. The proposal therefore relies on the TP to achieve the trip rates which have already been used in the initial calculation and any further deduction would not be justified and would constitute double counting.

5.33 The impact of delay and queuing also has implications for other road users and consultees to the planning process.

5.34 Public Transport will become less reliable in this area as buses are subjected to increased delay, this inevitably has knock on implications for the wider area and all bus users on those services.

5.35 Increased queues will also have implications for air quality and it is noted that schools are nurseries exist on roads which area subject to increased queuing. Whilst the air quality is a matter that Environmental Health officers are expert it, the Local Transport Plan includes policies to improve air quality which this development does not make a positive contribution towards.

5.36 Collectively the proposal conflicts with policies SD4 and INF1 on the development plan, also with policies PD0.1, PD0.3 and PD0.4 of the Local Transport Plan.

5.37 The Highway Authority recognises that the severe impact test is a high bar, but the significant impact at key junctions in terms of queue length and delay results in that conclusion. Four junctions have been identified which individually shows significant adverse impact from this proposal, but it is also clear that residual cumulative impacts would result in a severe impact contrary to paragraph 111 of the National Planning Policy Framework July 2021.

6.0 Harp Hill/Hewlett Road/Priors Road

6.1 The Appellant has worked positively with Highway Authority to explore options to address the previously identified capacity and safety concerns resulting in drawing H628/04 rev C being produced and this is included in appendix C of the Appellant's 2031 Capacity Assessment note.

6.2 The Highway Authority was provided with a copy of drawing H628/04 rev C on 13th July 2021, this was also accompanied with a stage 1 road safety audit.

6.3 The Highway Authority has considered this design and audit and concludes that it is an acceptable layout. The proposal does result in a reduction of footway width however 2m remains and that is considered to be suitable for this environment.

6.4 The modelling consideration has been presented separately in paragraphs 5.7-5.14 above, and it is clear that the alteration provides additional capacity on Harp Hill and to an extent it therefore achieves its purpose. The additional demands on Priors Road, Hales Road and Hewlett Road are not accounted for in this design and as such the proposal does not fully address the additional demands the proposal generates.

6.5 The drawing is therefore accepted in so far as it addresses Harp Hill, but it does not provide mitigation for account for the capacity shortcomings on other junction arms, therefore it still conflicts with paragraph 111 of the NPPF.

7.0 Pedestrian and Bicycle Access and Infrastructure

Proposed Route from Priors Road

7.1 The Appellants provided a position note on 6th July 2021 in response to Barker Parrys letter to Pegasus on 18th June 2021. That note contained drawing 333.E.33 in appendix D. The drawing confirmed that within the land available to the applicant a cycle route and separated pedestrian space could be delivered in a manner that was completable with LTN 1/20.

7.2 Barker Parry shared those details with the Local Planning Authority on 7th July 2021 to ensure that the proposal would not have any adverse comments from other consultees which would prevent its delivery as suggested.

7.3 The Highway Authority is therefore satisfied that sufficient space does exist to deliver suitable walking and cycling infrastructure subject to no objections being raised by other statutory consultees when the detail is considered.

Priors Road Alterations

7.4 The appellant has provided additional information relating to the delivery of cycling infrastructure on Priors Road to tie in to the existing cycling network. These are:

- Drawing H628/08 Rev A - B4075 Priors Road Pedestrian/Cycle Linkages
- Walking, Cycling & Horse-Riding Assessment Report – July 2021
- Cycle Level of Service Tool Assessment – Proposed Priors Road Cyclist Improvements – July 2021

7.5 These reports and supporting drawing look to ensure that any deficiencies are identified and addressed, and to ensure that any cycle infrastructure provides sufficient a suitable design to address users needs. I will comment on each in turn.

7.6 Cycle Level of Service Tool Assessment. The shows that the scope of the infrastructure provided is suitable. There are some assumptions within the score which would be subject to the reserved matters application to resolve which cannot be guaranteed at this stage, however it is considered to be reasonable and shows a good level of service score. As such it is accepted.

7.7 Drawing H628/08 Rev A - B4075 Priors Road Pedestrian/Cycle Linkages. This drawing needs to be read alongside the Cycle Level of Service Tool Assessment. The drawing is considered to be suitable for the intended purpose, however it now includes new bus shelters which will need to be considered in detail which cannot be achieved in the time available. Also give the existing trees on Priors Road consideration needs to be given to ensuring that all the existing trees are retained. As such the principle is accepted, but a condition should be imposed to allow the detail to be worked through and delivered.

7.8 Walking, Cycling & Horse-Riding Assessment Report. This report is also considered to have been correctly prepared, and it lists opportunities to be explored. These have been provided below.

Table 3.1: General Opportunities
Opportunity 1: Provide crossing across Priors Road opposite egress of Footpath ZCH86 to provide enable users to access bus service Q and enable cyclists to join the northbound carriageway of Priors Road.
Opportunity 2: Remove kissing gates and upgrade Footpath ZCH86 to provide for cycle and pedestrian access from the proposed site to connect with Priors Road.
Opportunity 3: Provide a pedestrian and cycle link through to Pillowell Close (development to the north) to improve access to local facilities (subject to land control).

Table 3.2: Strategic Opportunities
Opportunity 4: Investigate provision of further pedestrian/cycle connections to Former GCHQ at the northeast of the proposed development. This would enable improved access to PRoWs and the wider countryside, avoiding busier roads such as Harp Hill.
Opportunity 5: Support any proposals to improve cycle safety on the promoted cycle route to Cheltenham Town Centre, particularly at the Prestbury Road/Pittville Circus roundabout.

Table 3.3: Pedestrian Specific Opportunities
Opportunity 6: Extend footway alongside the northern carriageway on Harp Hill to connect with Footpath ZCH86.
Opportunity 7: Remove all kissing gates along Footpath ZCH86 to improve access for pedestrians, particularly disabled users.
Opportunity 8: Extend provision for pedestrians along the extent of Harp Hill, connecting current residential properties and ideally linking through to network of PRoWs off Aggs Hill/Birdlip Road.
Opportunity 9: Provide dropped kerb on southern side of Harp Hill carriageway to enable users to cross to footway opposite exit of Footpath ZCH86.
Opportunity 10: Re-surface cracked and un-even sections of footway alongside Priors Road.

Table 3.4: Cycle Specific Opportunities
Opportunity 11: Upgrade Footpath ZCH86 to provide access for cycle users. Resurfacing and providing lighting.
Opportunity 12: Provide cycle connection from site access alongside Priors Road to join Whaddon Road.
Opportunity 13: Provide permeability for cycle users from the proposed site to Harp Hill.

Table 3.5: Equestrian Specific Opportunities
No specific opportunities for equestrian users were identified as part of this review.

7.9 It can be seen that there is some overlap with the works already being promoted. Comments on these measures are provided below.

Opportunity	Comment
1	Agreed. Already proposed.
2	Agreed, in the gift of the applicant to convey higher rights to the route.
3	Whilst this is desirable the land to deliver it falls beyond the scope of this appeal an as such cannot be achieved.
4	A permeable network is desirable; however, this appeal does not rely on this and land ownership means that it cannot be achieved in the scope of this appeal.
5	It is not clear what is proposed, how will support be provided?
6	Agreed. Already proposed.
7	Repetition of opportunity 2.
8	There does not appear to be the land available to achieve this.
9	Agreed. Already proposed.
10	Desirable, this overlaps on the proposed conversion order works on Priors Road.
11	Repetition of opportunity 2.
12	Agreed. Already proposed
13	Agreed, but the gradient is a barrier to the as explained in paragraph 129 onwards.

7.10 The reports confirm that the proposed alterations are suitable to access the site. Some opportunities are not achievable and whilst desirable are not in the applicant or Highway Authority's gift to achieve.

7.11 The Highway Authority therefore concludes that the works indicatively shown on drawing H628/08 Rev A are acceptable, but conditions are needed to address the detail.

7.12 The works also involve a cycle track conversion order which has a legal process which must be completed, this can be processed as part of the section 278 process, but as it cannot be guaranteed and the applicant relies upon this consideration should be given to a Grampian condition which requires the order to be completed before commencement.

8.0 Access to Public Transport Services

8.1 The Highway Authority has previously raised concerns about the ability to access public transport services based on the distance from the individual properties to bus stops.

8.2 Industry recommendations are typically a walking distance of 400m from bus stop to front door, however, regard needs to be given to the quality of the route and if a bus service diversion is proposed, what the adverse impacts may be of that diversion, to ensure full compliance.

8.3 The Appellant provided drawing 333.P.3.9 Rev E on 14th July 2021 which provides distances to bus stops based in the indicative layout. This shows that the distance to the nearest bus stop is within 800m, and a further 200m to access the more frequent services on Whaddon Road. It is clear that this distance exceeds the industry recommendation and therefore the route will become an important factor in the decision access the services.

8.4 The applicants drawing does show that routes could be relatively direct, we also know from the details of the pedestrian and cycle connection to Priors Road that the route is relatively flat and will have dedicated pedestrian and cycle infrastructure that will segregate users. The proposed controlled crossing on Priors Road also contributes to encouraging walking into the local community generally but also to bus stops, and these are proposed to be improved. This is considered to be a route which would be attractive for users and give reasonable access to existing services some of which are high frequency.

8.5 The Highway Authority therefore is satisfied with the information submitted as whilst it cannot be ignored that the bus stops are up to 1000m away the route quality does address this is part although the distance may remain a barrier to some users. With the additional information submitted this is no longer a matter of concern.

9.0 Illustrative Vehicle Access off Harp Hill

9.1 The application has been submitted in outline with all matters reserved, however the submitted covering letter seeks to address the access through a planning condition.

9.2 Correspondence has been received from PFA dated 6th July 2021 advises that they do not anticipate access to be determined as part of this appeal. However, a formal position has not been confirmed at the time of preparing this Proof of Evidence.

9.3 The submitted access drawing H628/02 Rev Bis not considered to be acceptable due to the relaxed radius, road width and position of the pedestrian crossing point. However, it is concluded that there is no obvious impediment to a suitable access in this location and the concern is the design not principle.

9.4 All access matters should be considered as later reserved matters, to enable matters to be rationalised as part of this Inquiry.

10.0 Site Gradient

10.1 Whilst the layout is a reserved matter the topography of the site is very challenging and there is no certainty that a suitable access road can be achieved within the site at a future time to address the needs of all users.

10.2 The appellant has provided a long section of the site, drawing number 333.E.7.1, which shows a longitudinal gradient of 1 in 12.5 for 165m.

10.3 Policy SD4 of the Adopted Joint Core Strategy details the requirements, it states:

> *"Inclusiveness and Adaptability - New development should provide access for all potential users, including people with disabilities, to buildings, spaces and the transport network, to ensure the highest standards of inclusive design. Development should also be designed to be adaptable to changing economic, social and environmental requirements"*

10.4 The NPPF para 112 now includes an additional section "b", this specifically requires development to *"address the needs of people with disabilities and reduced mobility in relation to all modes of transport;".* In this context the gradient matter is a significant matter for less mobile individuals whether that be as a pedestrian or cyclists. This further reinforces the need to ensure that the gradient is not excessive. The Highway Authority's approach to the is topic aligns with the intention behind this NPPF paragraph. It is similarly complementary of NPPF 110 "*(b) which requires that a "safe and suitable access to the site can be achieved for all users."*

10.5 It clear that any scheme is required to provide a design to address all users regardless of the number of users that might use the route.

10.6 The local design requirement in "Manual for Gloucestershire Streets" is 1 in 20, but gradient of 1 in 12 can be considered so long as lengths are restricted to lengths of 30m. This it to allow plateaus to be formed to give persons which are less mobile opportunity to rest.

10.7 The approach advocated in MfGS was produced being mindful of the Public Sector Equality Duty and reflecting on publications at that time, notably "Inclusive Mobility"(2005) produced by the Department for Transport.

10.8 The relevant extract from Inclusive Mobility can be found in appendix I. To summarise it recognises evidence from the United States on the distances of where disabled persons need to rest frequently, and also notes research from London that also identified short straight of steep gradient impeded access for persons with a disability.

10.9 The recent publication LTN 1/20 “Cycle infrastructure Design” also identified the need to limit steep gradient for the purposes of encouraging cycling. The benefits of this would apply to a variety of user. Table 5-8 identified maximum gradient lengths and even at 5% (1in 20) it identified a desirable maximum length of gradient of 30m. Paragraphs 5.9.7 – 5.9.10 offer additional clarification.

10.10 Similar guidance is offered by Sustrans in their manual “Handbook for cycle-friendly design” which advises that gradients of 1 in 15 should be restricted to 30m and greater than 1 in 13 (7%) should be “*for short lengths*”.

10.11 The key extracts can be found in section 2 onwards.

10.12 The direct active travel routes through this appeal site are south to north towards the pr-posed footpath/cycleway. The gradient on this route appears to be a consistent 1:12.5 gradient. The alignment of internal footpaths and roadways have been shown as weaving through the site to achieve a lesser gradient along the align-ment, but not offering the most direct route to the footpath/cycleway.

10.13 In assessing the information submitted in support of the application, now appeal, the Highway Authority has identified significant deviation from Local and National policy and design guidance, with the standard north/south gradient being 1:12.5. Whilst this has been discussed with the Appellant’s transport consultants no evidence has been provided to demonstrate how this can be overcome to ensure access for all. It conflicts with National and Local Policy and guidance documents and is therefore highly likely to adversely impact on persons with protected characteristics.

10.14 Whilst it is recognised that the internal layout is a future matter for consideration there is no confidence that a suitable engineering solution can be accommodated.

10.15 The Highway Authority would not wish to see a situation where an outline permission is granted yet they are unable to support a reserved matters proposal due to the site

constraints and its adverse impact on persons with protected characteristics. As such the matter is considered to be sufficiently fundamental to the ability to access the site that it should be consider at this stage.

11.0 Planning Obligations

Travel Plan

11.1 The application was supported with a residential travel plan to promote alternative transport options to private car travel, particularly where trips are single occupancy vehicle trips.

11.2 The travel plan is considered to be suitable in its submitted form, but the applicant has indicated that the wish the Highway Authority to implement and monitor the plans delivery. This is a delivery mechanism that follows the Highway Authority's guidance document, in Appendix H, and as such is an appropriate way to address this matter. This means that no condition is needed to secure the travel plan as submitted.

11.3 A contribution of £64,500 is required to enable the Highway Authority to implement and monitor this plan.

11.4 The appeal therefore needs to be supported with a suitably worded planning obligation to allow for the contribution to be deposited.

Off Site Mitigation

11.5 This item has not been fully addressed as the harm identified had not been actively addressed during the application determination period and the harms arising from the 2031 assessment are not proposed to be mitigated.

11.6 Discussions are ongoing at the time of the preparation of this proof of evidence, the Highway Authority with no substantial mitigation being proposed by the Appellant. At this time, it is anticipated that the Harp Hill roundabout improvements, footpath/cycleway and Priors Road improvements can be secured by condition.

11.7 An addendum to this Proof of Evidence will be provided to the Inquiry should further mitigation be proposed by the Appellant.

11.8 The Highway Authority has not seen the draft heads of terms of any draft legal agreement, therefore mitigation in the form of the travel plan contribution and any other off-site mitigation has not been secured at the time of writing.

12.0 Conclusions

12.1 The appellant and Highway Authority have work together through this inquiry period to explore and agree what matters they can, this is considered to be good practice and helps to reduce inquiry time.

12.2 Matters of Public Transport Access and the ability to access the site on foot and bicycle are now common ground items. Additionally, some of the junctions where capacity was challenged have also been satisfactorily demonstrated to not be severe.

12.3 The 2031 network wide assessment both with and without this development scenarios are agreed.

12.4 Vehicle impact remain a significant item of disagreement with the following junctions being adversely impacted to the point where the Highway Authority considers it to be Severe.

- B4075 Priors Road / Hales Road / Harp Hill / Hewlett Road Double Roundabout
- B4075 Priors Road / Bouncers Lane Priority Junction
- B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout
- A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals

12.5 Implications on the junction of Redmarley Road are unclear due to the implications of the queue from adjoining junctions appearing to prevent the release of traffic from other arms.

12.6 Additional delay and queue length will have a significant and adverse impact on junction performance which has implications for environmental reasons, bus journey time, trip diversion to residential roads and driver frustration. These are locally significant junctions and serve an important link to access employment and education services, and as such their performance has a noticeable impact on the local community.

12.7 Suitable mitigation to address these identified harms has not been presented.

12.8 The proposal conflicts with Paragraph 111 of the NPPF as we as local policies in the Local Transport Plan.

12.9 The site gradient remains a concern in principle given there is no obvious solution to this without significant engineering operations. The Highway Authority has had due regard to the needs to persons with protected characteristics and concludes that the steepness of the proposal and over the length proposed adversely impacts on some users, it is also a deterrent to cycling and active travel more generally.

12.10 This conflicts with paragraph 110 and 112 of the NPPF and policy SD4 of the adopted Joint Core Strategy. It also does not follow the guidance provided in LTN 1/20 or Manual for Gloucestershire Streets.

12.11 The access off Harp Hill can be address with a suitably worded planning condition.

12.12 The travel plan implementation package can be addressed with a suitable planning obligation.

12.13 The Highway Authority concludes that the proposal will have a severe impact on the Highway Network and fails to account for safe and suitable access for all users. These are material considerations and the Inspector is asked to give it very significant weight.

APPENDIX A

	Highways Development Management Shire Hall Gloucester GL1 2TH
Lucy White **Cheltenham Borough Council** **P.O. Box 12** **Municipal Offices** **Promenade** **Cheltenham Glos** **GL50 1PP**	**Email: stephen.hawley@gloucestershire.gov.uk**

Our Ref: B/2020/045659	**Your Ref: 20/01069/OUT**	**Date: 31 July 2020**

Proposal:	Development comprising of up to 250 residential dwellings including provision of associated infrastructure, ancillary facilities, open space and landscaping, demolition of existing buildings and formation of new vehicular access from Harp Hill. Approval sought for means of access to site from Harp Hill with all other matters reserved for future consideration Oakley Farm Priors Road Cheltenham Gloucestershire GL52 5AQ	**Received date:**	16 July 2020

Recommendation:	~~No objection~~		~~No objection (Subject to conditions)~~	
	~~Refusal~~		~~Further information~~	X

Document(s), drawing(s) and reference(s):		**Planning history ref(s):**	

Details of recommendation:

The application proposes upto 250 dwellings with all matters reserved apart from access. The site does not form part of the adopted Joint Core Strategy.

The access strategy can be separated out into key topics of consideration.

Immediate Pedestrian / Cycle access

The application proposes a shared use cycleway/footway on to Priors Road. Insufficient detail as been provided on this connection. Drawing H828/06 (in appendix H) show part of this link, but no dimensions are provided, a comprehensive drawing showing the full length and width is required. It also shows a new toucan crossing and cycleway, the applicant should show details of the cycleway width and design standards, and the visibility of the crossing given the adjoining street trees. Additionally, the proposal oversails the existing public footpath, this is important as it is unlawful to cycle on a footpath, therefore the

	owner of the site would need to convey a higher access right to allow cycling to occur. Without higher rights existing the site would reply on Harp Hill for cycle access only which is not considered to be suitable due to the gradient. Immediate Vehicle Access The proposal provides a new bellmouth onto Harps Hill, this is supported with visibility splays using the 85th percentile approach speeds. The proposal however fails to provide any details of the dimension of the access or any tracking details and as such this access cannot be agreed. The access also needs to account for the entry into the site, observation indicates that there is a considerable gradient from the access into the site. The applicant should provide a long section of the access road to demonstrate that the 1 in 20 gradient is achieved. Improvements to Harp Hill and Priors Road to Active Travel New footway is proposed on Harp Hill and Cycleway improvements made to Prior Road including a new toucan crossing. The applicant proposes to address these through a planning obligation as a contribution towards the proposals. The Highway Authority is not satisfied through this approach, the works are necessary to deliver the proposal and as such they should be secured through a planning condition and delivered by a section 278 agreement prior to the first occupation of any dwelling. Therefore, any permission granted should include a condition requiring the applicant to deliver the works define in appendix H and I of the TA. Off Site Vehicle Mitigation The TA assesses several junctions in accordance with the agreed scoping paper, the applicant has concluded that there is an impact at the junction of Harp Hill/Priors Road/Hales Road and Hewlett Road which requires mitigation and all other junctions assessed will experience no impact. A drawing of a mitigation scheme for the above junction is provided in appendix R of the TA and the applicant proposes to pay the Highway Authority to deliver this scheme. The Highway Authority does not share these conclusions nor the form of scheme delivery as the development requires it to facilitate access, therefore is should be secured through a planning condition and delivered through a section 278 agreement. The Highway Authority has reviewed the mitigation scheme in appendix R. It is accepted that the Junction 9 modelling report indicates that the scheme is beneficial however caution is needed on the over reliance of the model and practical consideration is also needed on the likely implications of the scheme to drivers. Recognising that the AM peak is most sensitive in this instance the correct comparison of junction performance through modelling along is a comparison of table 7.2 scenario 2 and table 7.5 scenario 3A. This looks at a 2024 scenario without development and with development and mitigation, the modelling demonstrates that mitigated scenario shows an erosion of capacity on the east roundabout on all arms.

	When considering the actual mitigation scheme it is considered that the modelling results are likely to be realised and the junction is more likely to form as recorded in the current geometry as shown in table 7.5 scenario 3. The proposal widens the “flare” length and “entry width” as defined in CD116 of the Design Manual for Roads and Bridges, however due to the reverse curve these benefits do not result in any change to the give way point and the widening is modest so is unlikely to change a drivers approach position in any meaningful manner. Therefore the modelling result of the mitigation scheme are correct by virtual of the method adopted, but in practice is unlikely to actually change in driver behaviour, hence the Highway Authority considers the no mitigation reporting to be more realistic and this shows significant capacity erosion as a result of the scheme. Additionally a review of the modelling outputs shows unmitigated harm at the following junctions: Priors Road / Bouncers Lane Prestbury Road / Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane A40 London Road / Old Bath Road / Hales Road The above junctions should be re appraised and suitability mitigated with a scheme that has the agreement of the Highway Authority. Additionally, a further capacity test is required recognising the lack of local plan designation, the future assessment year should be 2031 to match the local plan assessment period, and all assessment should be undertaken using Tempro 7.2b which is the latest release. This may be best reviewed using the GCC Saturn model. The applicant has submitted a travel plan to reduce the need to travel and encourage sustainable mode of travel. The applicant has indicated that it their intension for make payment to The Highway Authority to deliver this plan on their behalf, this approach overall is considered to be acceptable. A review of the TP shows that it lacks ambition, the targets are too low and doesn’t look to promote personal travel planning as a primary treatment. The travel plan needs to be updated to set an ambitious agenda and series of interventions. It is therefore necessary for the applicant to review the proposal in light of the above comments and submit a TA addendum and new TP addressing these points. It is also brought to the applicants attention that Manual for Gloucestershire Streets (July 2020) is available which includes details which may assist the preparation of a TA addendum. Stephen Hawley BSc (Hons) IEng MCIHT FIHE MTPS Cert(mgmt)open Highway Development Management Team Leader Highways Development Management Communities Infrastructure			
	ITU		**Highways Records**	

Required consultation:	**Rd Safety**		**Fire Service**	
	PROW		**Structures**	
	LHM		**Police**	

APPENDIX B

	Highways Development Management Shire Hall Gloucester GL1 2TH
Lucy White **Cheltenham Borough Council** **P.O. Box 12** **Municipal Offices** **Promenade** **Cheltenham Glos** **GL50 1PP**	**Email: stephen.hawley@gloucestershire.gov.uk**

Our Ref: B/2020/045659	**Your Ref: 20/01069/OUT**	**Date: 17 August 2020**

Proposal:	Development comprising of up to 250 residential dwellings including provision of associated infrastructure, ancillary facilities, open space and landscaping, demolition of existing buildings and formation of new vehicular access from Harp Hill. Approval sought for means of access to site from Harp Hill with all other matters reserved for future consideration Oakley Farm Priors Road Cheltenham Gloucestershire GL52 5AQ	**Received date:**	16 July 2020

Recommendation:	~~No objection~~		~~No objection (Subject to conditions)~~	
	~~Refusal~~		Further information	**X**

Document(s), drawing(s) and reference(s):		**Planning history ref(s):**	

Details of recommendation:	The application proposes upto 250 dwellings with all matters reserved apart from access. The site does not form part of the adopted Joint Core Strategy. The access strategy can be separated out into key topics of consideration. Immediate Pedestrian / Cycle access The application proposes a shared use cycleway/footway on to Priors Road. Insufficient detail as been provided on this connection. Drawing H828/06 (in appendix H) show part of this link, but no dimensions are provided, a comprehensive drawing showing the full length and width is required. It also shows a new toucan crossing and cycleway, the applicant should show details of the cycleway width and design standards, and the visibility of the crossing given the adjoining street trees. Additionally, the proposal oversails the existing public footpath, this is important as it is unlawful to cycle on a footpath, therefore the

	owner of the site would need to convey a higher access right to allow cycling to occur. Without higher rights existing the site would reply on Harp Hill for cycle access only which is not considered to be suitable due to the gradient. Immediate Vehicle Access The proposal provides a new bellmouth onto Harps Hill, this is supported with visibility splays using the 85th percentile approach speeds. The proposal however fails to provide any details of the dimension of the access or any tracking details and as such this access cannot be agreed. The access also needs to account for the entry into the site, observation indicates that there is a considerable gradient from the access into the site. The applicant has provided an indicative long section this shows a 1 in 20 gradient onto Harp Hill, however to access the majority of the development 160m of 1 in 12.5 is shown, this is unacceptable and no greater lengths than 30m are permitted at that gradient, additionally 1 in 20 should be maintained at the junction. The information submitted is lacking in terms of detail of the access and the indicative sections shows significant challenges which even with considerable earth works would be unacceptable. Improvements to Harp Hill and Priors Road to Active Travel New footway is proposed on Harp Hill and Cycleway improvements made to Prior Road including a new toucan crossing. The applicant proposes to address these through a planning obligation as a contribution towards the proposals. The Highway Authority is not satisfied through this approach, the works are necessary to deliver the proposal and as such they should be secured through a planning condition and delivered by a section 278 agreement prior to the first occupation of any dwelling. Therefore, any permission granted should include a condition requiring the applicant to deliver the works define in appendix H and I of the TA. Off Site Vehicle Mitigation The TA assesses several junctions in accordance with the agreed scoping paper, the applicant has concluded that there is an impact at the junction of Harp Hill/Priors Road/Hales Road and Hewlett Road which requires mitigation and all other junctions assessed will experience no impact. A drawing of a mitigation scheme for the above junction is provided in appendix R of the TA and the applicant proposes to pay the Highway Authority to deliver this scheme. The Highway Authority does not share these conclusions nor the form of scheme delivery as the development requires it to facilitate access, therefore is should be secured through a planning condition and delivered through a section 278 agreement. The Highway Authority has reviewed the mitigation scheme in appendix R. It is accepted that the Junction 9 modelling report indicates that the scheme is beneficial however caution is needed on the over reliance of the model and practical consideration is also needed on the likely implications of the scheme to drivers.

	Recognising that the AM peak is most sensitive in this instance the correct comparison of junction performance through modelling along is a comparison of table 7.2 scenario 2 and table 7.5 scenario 3A. This looks at a 2024 scenario without development and with development and mitigation, the modelling demonstrates that mitigated scenario shows an erosion of capacity on the east roundabout on all arms. When considering the actual mitigation scheme it is considered that the modelling results are likely to be realised and the junction is more likely to form as recorded in the current geometry as shown in table 7.5 scenario 3. The proposal widens the "flare" length and "entry width" as defined in CD116 of the Design Manual for Roads and Bridges, however due to the reverse curve these benefits do not result in any change to the give way point and the widening is modest so is unlikely to change a drivers approach position in any meaningful manner. Therefore the modelling result of the mitigation scheme are correct by virtual of the method adopted, but in practice is unlikely to actually change in driver behaviour, hence the Highway Authority considers the no mitigation reporting to be more realistic and this shows significant capacity erosion as a result of the scheme. Additionally, a review of the modelling outputs shows unmitigated harm at the following junctions: • Priors Road / Bouncers Lane • Prestbury Road / Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane • A40 London Road / Old Bath Road / Hales Road The above junctions should be re appraised and suitability mitigated with a scheme that has the agreement of the Highway Authority. Additionally, a further capacity test is required recognising the lack of local plan designation, the future assessment year should be 2031 to match the local plan assessment period, and all assessment should be undertaken using Tempro 7.2b which is the latest release. This may be best reviewed using the GCC Saturn model. The applicant has submitted a travel plan to reduce the need to travel and encourage sustainable mode of travel. The applicant has indicated that it their intension for make payment to The Highway Authority to deliver this plan on their behalf, this approach overall is considered to be acceptable. A review of the TP shows that it lacks ambition, the targets are too low and doesn't look to promote personal travel planning as a primary treatment. The travel plan needs to be updated to set an ambitious agenda and series of interventions. It is therefore necessary for the applicant to review the proposal in light of the above comments and submit a TA addendum and new TP addressing these points.

	It is also brought to the applicants attention that Manual for Gloucestershire Streets (July 2020) is available which includes details which may assist the preparation of a TA addendum. Stephen Hawley BSc (Hons) IEng MCIHT FIHE MTPS Cert(mgmt)open Highway Development Management Team Leader Highways Development Management Communities Infrastructure			
Required consultation:	**ITU**		**Highways Records**	
	Rd Safety		**Fire Service**	
	PROW		**Structures**	
	LHM		**Police**	

APPENDIX C

Cheltenham Borough Council

P.O. Box 12

Municipal Offices

Promenade

Cheltenham Glos

GL50 1PP

Highways Development Management

Economy Environment and Infrastructure

Shire Hall

Westgate Street

Gloucester

GL1 2TG

10 February 2021

Your ref: 20/01069/OUT

Ask for: Stephen Hawley

Dear Lucy White

TOWN AND COUNTRY PLANNING ACT 1990
(DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015
ARTICLE 18 CONSULTATION WITH HIGHWAY AUTHORITY

PROPOSAL:	**Development comprising of up to 250 residential dwellings including provision of associated infrastructure, ancillary facilities, open space and landscaping, demolition of existing buildings and formation of new vehicular access from Harp Hill. Approval sought for means of access to site from Harp Hill with all other matters reserved for future consideration**
LOCATION:	**Oakley Farm Priors Road Cheltenham Gloucestershire GL52 5AQ**
APPLICANT:	**Robert Hitchins Limited**

Gloucestershire County Council, the Highway Authority acting in its role as Statutory Consultee has undertaken a full assessment of this planning application. Based on the appraisal of the development proposals the Highways Development Management Manager on behalf of the County Council, under Article 18 of the Town and Country Planning (Development Management Procedure)(England) Order, 2015 recommends that this application be **deferred**.

The justification for this decision is provided below.

The applicant has provided a TA Addendum (TAA) to which seeks to address the comments dated 17th August 2020. The Highway Authority remains concerned by this proposal and the addendum has not addressed the issues.

The Highway Authority maintains the position that notwithstanding the TA scoping paper the fact that this is not a land allocation in the adopted Joint Core Strategy or Cheltenham Plan means that any development impacts have not been tested along side the planned growth, therefore any proposal beyond that in the adopted plans must be tested over the cumulative impacts that are anticipated. At this time the JCS has a 2031 development timeframe, therefore this proposal must undertake an appraisal in a 2031 future year including the plan identified growth. The application proposes a 2024 appraisal and does not adequately account for that future growth. Therefore, the conclusions presented underestimate the impact on the highway network.

Response to specific points.

2. Immediate pedestrian / cycle access

The proposal shows shared use faculties but as the primary way in/out of the site and in the surrounding highway network. The application has also stated that it has considered LTN 1/20. The recent publication of LTN 1/20 (section 6.5) considers the use of shared use facilities. The LTN advises that shared use facilities should be a regarded as a last resort and it details reason why not least due to difficulties for visually impaired persons and the perception of safety for all users. Therefore, any proposal should account for this document and look to provide facilities which separate pedestrians from cyclists. The proposals on the existing highway network do not achieve this nor does the indicative connection within the site. The proposal therefore fails to provide safe and suitable infrastructure for all users.

3. Immediate Vehicle Access

The TAA provides additional tracking details. It remains the case that the design on the access is not suitable having large radii, excessive road widths and unacceptable gradient. The applicant has not had regard to how the design should reduce speed at entry, instead the proposal will result in a relatively high entry speed onto a setback pedestrian crossing point which would have little inter-visibility. The access does not conform with Manual for Gloucestershire Streets.

The gradient matter is to ensure that pedestrian, cyclists and particularly those with a disability do not have to endure long lengths of a steep slope. The applicant should note the requirement is published in Manual for Gloucestershire Streets as 1 in 12 should not exceed 30m in length, but there are varying guidance in documents such as MfS2, Inclusive Mobility and LTN 1/20. The application shows that there are gradients at the maximum permitted level on this site, it therefore is necessary for areas to be designed in to allow for less mobile people to rest or be provided with addition support. It is recognised that that the internal layout is a reserved matter but the information before us make it a reasonable question to challenge if safe and suitable access can be provided for all users.

5 Off site vehicle mitigation

The applicant has provided further modelling to attempt to demonstrate that there is no severe impact at the junction of Priors Road/Harp Hill/Hales Road/Hewlett Road. The model has not been constructed in accordance with an agreed scope with the Highway Authority but a review suggested that the base model has been constructed in a suitable manner. However, the traffic

count data and queue survey data has not been provided. It is also the case, as previously mentioned, that the assessment does not reflect the plan period and consequently nor does it address committed developments. Even with these omissions the outputs show that the development traffic resulted in increased queue lengths, this was an anticipated outcome and the same conclusion was shown in the junction 9 software. The applicant should also consider the extent of network delay as a result of this proposal as this data is not presented. This should all be provided for the 2031 future with and without any mitigation.

With regards to the other junctions referred to in tables 5.1 and 5.2, the addendum dismisses the impact on the basis of percentage impact and doesn't look at route choice through the junction, this is not considered to be a fair approach on a congested network and should provide their own junction analysis or microsimulation of the impacts.

6 Travel Plan

It is noted that the applicant has indicated that they wish to pay Gloucestershire County Council to implement and monitor the travel plan. This would need to occur over a longer time period give the likely build out rate of the site. As such a travel plan contribution of £64,500.00 would need to be paid through a planning obligation.

Additionally, the public transport officer has also commented that the site is outside the accepted 400m walking distance to bus stops identified as Priors Rd Oakley 'outside and opposite Sainsbury's' and Whaddon Road 'Community Centre'. These stops are of limited quality and lack shelters in some instances.

In terms of bus timetables, taking into account nearest bus stops, the Priors Rd P&Q timetables are extremely limited and not suitable for commuters. Service A 'Whaddon Road' is the more frequent route but appears residents have farther to walk in order to access. In conclusion for this site to be sustainable there would need to be a great deal of thought given towards bus service provision be that directly through the site or towards improving the existing Services P&Q with subsequent infrastructure improvements at the Sainsbury's stops.

The TA Addendum has not addressed the implications of the site on the transport network and fails to provide a suitable sustainable access strategy. Matters of gradient could potentially be addressed through more significant earthworks but at this time it is not clear that this the case and the gradients are excessive and consequently prohibitive to development. The applicant should provide a comprehensive addendum that addresses the above matters.

The Highway Authority therefore submits a response of deferral until the required information has been provided and considered.

Yours Sincerely

Stephen Hawley
Highway Development Management Team Leader

APPENDIX D

Cheltenham Borough Council

P.O. Box 12

Municipal Offices

Promenade

Cheltenham Glos

GL50 1PP

Highways Development Management

Economy Environment and Infrastructure

Shire Hall

Westgate Street

Gloucester

GL1 2TG

1 April 2021

Your ref: 20/01069/OUT

Ask for: Stephen Hawley

Dear Lucy White

TOWN AND COUNTRY PLANNING ACT 1990
(DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015
ARTICLE 18 CONSULTATION WITH HIGHWAY AUTHORITY

PROPOSAL:	**Development comprising of up to 250 residential dwellings including provision of associated infrastructure, ancillary facilities, open space and landscaping, demolition of existing buildings and formation of new vehicular access from Harp Hill. Approval sought for means of access to site from Harp Hill with all other matters reserved for future consideration**
LOCATION:	**Oakley Farm Priors Road Cheltenham Gloucestershire GL52 5AQ**
APPLICANT:	**Robert Hitchins Limited**

Gloucestershire County Council, the Highway Authority acting in its role as Statutory Consultee has undertaken a full assessment of this planning application. Based on the appraisal of the development proposals the Highways Development Management Manager on behalf of the County Council, under Article 18 of the Town and Country Planning (Development Management Procedure)(England) Order, 2015 recommends that this application is **refused.**

The justification for this decision is provided below.

The Highway Authority has previously recommended that this application be deferred on 2 occasions seeking further clarification on the assessment presented. The applicant has not engaged with the Highway Authority in order to address these issues before submitted further technical notes. Those notes do not address the concerns of the Highway Authority and the reasoning is listed below.

Network wide impact

The applicant has acknowledged the need to consider the impact with the Highway Authority's Saturn model, and now seeks to engage. Whilst this is welcomed the details on how to access this tool have been freely available for the duration of this applications consideration, therefore the applicant is able to commission such services based on the published guidance. It is essential that the applicant provides a suitable appraisal of this site alongside the anticipated local plan sites given it is not allocated and as such impact and infrastructure mitigation for this site has not been accounted for at this stage.

The TA Addendum looked at the percentage impact on some junctions and microsimulation.

Priors Road/Harp Hill/Hales Road/Hewlett Road junction.

Further information has now been provided on the use of the paramics microsimulation model. The conclusion remain the same that there is unacceptable impact which is considered to be severe. The micro simulation tool can help to demonstrate operation usage better than historic junction modelling tools, in the instance of this junction through the TA and TA Addendum both forms of assessment have been undertaken. Both tools focus on this junction and cannot consider any wider reassignment due to the scope of the assessment. Whilst the outcomes should be treated with caution both models show increased delay and queue length in the 2024 scenario and direct mitigation is not proposed.

Priors Road/Bouncers Lane and Presetbury Road/Tatchley Lane/Deep Street/Black smiths Lane Bouncers Lane junction

The applicant concludes that there is no detriment in 2024, as previously stated this does not capture the full plan period as therefore is an underestimation. The presented table 4 on these junctions does not include the resultant delay, when this is cross referenced again the originally submitted TA the result shows that whilst the queue length is shown to not being excessively long the resulting delay is significant.

A40 London Road / Old Bath Road / Hales Road

The additional technical note does not address this other than suggesting that there is little scope for improvement and suggestion of upgrading the controller unit. The TA demonstrates significant impact to this junction as a result of the proposal.

The applicant has suggested that the impact of COVID-19 would result in more flexible and Home working. Whilst this is one scenario the wider implication of the pandemic on travel patterns is not clear. As such reductions in traffic flow for this reason are not accepted.

The TA, TA Addendum and technical note have not addressed the cumulative impact of development and future traffic growth for an appropriate future year. The implications of the development on the network are considered to be severe and consequently conflict with paragraph 109 of the National Planning Policy Framework.

Cycle Infrastructure

The Highway Authority has sought that the proposal complies with LTN 1/20. It is considered that this needs to be split in to the consideration of on site and off site works.

On site works would be a reserved matter and therefore it is not necessary to include this as a refusal point. I would however suggest that the applicant suggestion of a 3m shared facility is not acceptable as shared facilities are now considered to be a “last resort” option.

It has been suggested that offsite mitigation is a reserved matter and could be addressed later. This is not an accepted position. The offsite works would be mitigation to the direct implications of the proposal, should those works be delivered through a planning obligation it would have to be address at this stage, therefore it is illogical to conclude the means of delivery dictates the status of the consideration of the works. The detail around the assessment of needs and design has not been concluded and it is necessary to ensure that a safe and suitable arrangement is provided.

Immediate access off Harp Hill

This is a matter for consideration at this stage and therefore the suitability of the access needs to be resolved now. Previous comments raised concern about the access width, speeds, and tracking. In response the applicant has indicated that it design to accord with Manual for Gloucestershire Streets requirements, this is clearly incorrect and does not reflect the required standard. The access is excessive and does not convey a design that is conducive to safe and suitable active travel infrastructure. The access and initial street geometry do not reflect the local design guide and does not address the needs to pedestrians or cyclists.

The site gradient remains a concern. Whilst the internal streets are for future consideration the topography of the site provides significant challenges. The desired gradient is 1 in 20, and no steep than 1 in 12, the applicant has provided details of long lengths of 1 in 12.5. The intend of this gradient is to ensure that layouts are suitable for active travel and particularly for those individuals with protected characteristics. The Highway Authority has no confidence that the 1 in 20 gradient can be achieved and based on the information provided that short lengths be provided where it is steeper. As such it does not consider that a future proposal would be unable to achieve a suitable layout.

Travel Plan

The applicant has accepted the travel plan requirements and these need to form part of a suitable legal agreement. This appears to be accepted but not agreement exists at this stage.

Public Transport

Bus stop provision does exceed the nationally accepted thresholds. Therefore, in order to offset this it is normal for distance of upto 800m to be accepted where there is highway links and infrastructure. The applicant that some stops are over 600, and 800m from the centre of the site, this will result in a significant number of households exceeding this upper threshold. Additionally, the route would need to be direct and be a pleasant environment. The applicant has already indicated that they intend to provide a shared walking and cycling environment which is not considered to address the needs for pedestrians or cyclists well. As such the distance to bus stops is unacceptable, the route as indicatively show is unsuitable, and the stops themselves require enhancement. Mitigation of cycle stands at bus stops is unlikely to be a suitable outcome give the relatively short distances by bicycle and resulting multiple transport choices.

Conclusion

The application is considered to result in a severe impact on the Highway network which is contrary to paragraph 109 of the National Planning Policy Framework, it is also considered to conflict with paragraphs 108 and 110. It also conflicts with INF 1 and INF 4 of the Joint Core Strategy, LTP PD 0.3 and 0.4 of the Local Transport Plan, and Manual for Gloucestershire Streets.

The Highway Authority has undertaken a robust assessment of the planning application. Based on the analysis of the information submitted the Highway Authority concludes that there would be a severe impact and would conflict with the provision of safe and suitable access for all users. Therefore it is recommended that this application is refused.

Yours Sincerely

Stephen Hawley
Highway Development Management Team Leader

APPENDIX E

			Without Development				With Development				Difference			
			Queue (PCU	Queue (M)	Delay (Sec	RFC	Queue (PCU	Queue (M)	Delay (Sec	RFC	Queue (PCU	Queue (M	Delay (Sec)	
B4075 Priors Road / Harp Hill Mini Roundabout (east roundabout)														
AM	B4075 Priors Road		37.20	213.90	144.19	1.01	49.40	284.05	186.27	1.03	12.20	70.15	42.08	
PM	B4075 Hales Road		2.20	12.65	10.89	0.69	12.60	72.45	62.08	0.97	10.40	59.80	51.19	
PM	Hewlett Road		1.50	8.63	9.83	0.60	8.20	47.15	56.40	0.93	6.70	38.53	46.57	
B4075 Priors Road / Bouncers Lane Priority Junction														
PM	Priors Road (South) to Priors Road (No		33.80	194.35	140.55	1.01	48.20	277.15	196.84	1.03	14.40	82.80	56.29	
B4632 Prestbury Road / B4075 Tatchley Lane / Deep Street / Blacksmiths Lane / Bouncers Lane Double Mini-Roundabout														
AM	East Mini Roundabout Bouncers Lane		19.50	112.13	186.48	1.00	35.10	201.83	310.78	1.06	15.60	89.70	124.30	
A40 London Road / A40 Old Bath Road / B4075 Hales Road Traffic Signals														
AM	A40 London Road		61.40	353.05	265.70	110.80	69.40	399.05	311.50	113.80	8.00	46.00	45.80	
	A40 Old Bath Road		67.00	385.25	252.20	110.50	72.50	416.88	275.20	112.10	5.50	31.63	23.00	
	A435 London Road		44.70	257.03	234.00	108.00	52.40	301.30	289.10	111.70	7.70	44.28	55.10	
	B4075 Hales Road		46.60	267.95	255.20	109.20	61.80	355.35	330.10	114.40	15.20	87.40	74.90	
PM	A40 London Road		68.60	394.45	273.70	111.60	76.50	439.88	313.90	114.30	7.90	45.43	40.20	
	A40 Old Bath Road		78.50	451.38	304.50	114.00	87.70	504.28	333.50	116.10	9.20	52.90	29.00	
	A435 London Road		58.20	334.65	284.80	111.60	67.70	389.28	343.40	115.60	9.50	54.63	58.60	
	B4075 Hales Road		42.50	244.38	281.70	110.30	52.50	301.88	348.00	114.90	10.00	57.50	66.30	

APPENDIX F

Calculation Reference: AUDIT-712101-190430-0438

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	3 days
	KC	KENT	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	5 days
03	**SOUTH WEST**		
	DV	DEVON	1 days
	SM	SOMERSET	1 days
06	**WEST MIDLANDS**		
	SH	SHROPSHIRE	1 days
	ST	STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 33 to 248 (units:)
Range Selected by User: 25 to 350 (units:)

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/11 to 20/11/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	2 days
Wednesday	4 days
Thursday	7 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	11

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	15

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

5,001 to 10,000	3 days
10,001 to 15,000	5 days
15,001 to 20,000	4 days
20,001 to 25,000	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	1 days
125,001 to 250,000	6 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	15 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	8 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	15 days

This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	15	102	0.098	15	102	0.331	15	102	0.429
08:00 - 09:00	15	102	0.119	**15**	**102**	**0.374**	**15**	**102**	**0.493**
09:00 - 10:00	15	102	0.163	15	102	0.175	15	102	0.338
10:00 - 11:00	15	102	0.127	15	102	0.158	15	102	0.285
11:00 - 12:00	15	102	0.152	15	102	0.161	15	102	0.313
12:00 - 13:00	15	102	0.163	15	102	0.152	15	102	0.315
13:00 - 14:00	15	102	0.179	15	102	0.168	15	102	0.347
14:00 - 15:00	15	102	0.156	15	102	0.204	15	102	0.360
15:00 - 16:00	15	102	0.251	15	102	0.175	15	102	0.426
16:00 - 17:00	15	102	0.283	15	102	0.166	15	102	0.449
17:00 - 18:00	**15**	**102**	**0.339**	15	102	0.154	15	102	0.493
18:00 - 19:00	15	102	0.289	15	102	0.170	15	102	0.459
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.319			2.388			4.707

APPENDIX G

Calculation Reference: AUDIT-840401-210727-0706

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	KC	KENT	2 days
06	**WEST MIDLANDS**		
	ST	STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 212 to 363 (units:)
Range Selected by User: 150 to 400 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 23/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	4

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	4 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	2 days
20,001 to 25,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	2 days
75,001 to 100,000	1 days
125,001 to 250,000	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	4 days

This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	278	0.106	4	278	0.302	4	278	0.408
08:00 - 09:00	4	278	0.147	**4**	**278**	**0.400**	4	278	0.547
09:00 - 10:00	4	278	0.137	4	278	0.155	4	278	0.292
10:00 - 11:00	4	278	0.113	4	278	0.145	4	278	0.258
11:00 - 12:00	4	278	0.131	4	278	0.163	4	278	0.294
12:00 - 13:00	4	278	0.166	4	278	0.149	4	278	0.315
13:00 - 14:00	4	278	0.167	4	278	0.145	4	278	0.312
14:00 - 15:00	4	278	0.198	4	278	0.178	4	278	0.376
15:00 - 16:00	4	278	0.263	4	278	0.176	4	278	0.439
16:00 - 17:00	4	278	0.305	4	278	0.194	4	278	0.499
17:00 - 18:00	**4**	**278**	**0.393**	4	278	0.173	**4**	**278**	**0.566**
18:00 - 19:00	4	278	0.319	4	278	0.224	4	278	0.543
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.445			2.404			4.849

APPENDIX H

Extract Residential Travel Plans Advice Sheet (3rd December 2010)

Planning Obligations: The Principles

Are requests for contributions sound in terms of the five principles?

Principle	Relevance of Residential Travel Plan
Necessary to make the proposed development acceptable in planning terms	The use of a residential Travel Plan will help reduce the number of car trips generated by the development that would be expected if each occupier did not use walking, cycling or public transport for some journeys.
Relevant to planning	A Residential Travel Plan will benefit occupants of the development in the future by reducing car journeys generated by the development.
Directly related to the proposed development	A Residential Travel Plan will cover all those journeys made by people moving into the development.
Fairly and reasonably related in scale and kind to the proposed development	Contributions in relation a Residential Travel Plan are not excessive in comparison with other costs. The plan will ensure the travel plan measures are implemented by the developer and monitored in order to measure effectiveness.
Reasonable in all other respects	It is reasonable to expect the developer to provide facilities related to the developments that mitigate the effect of the development on the highway network. A Residential Travel Plan will potentially help reduce car trips and result in greater use of public transport and walking and cycling facilities provided for the development.

Contributions sought for Residential Travel Plans should not detract from contributions sought for improvements to walking, cycling and public transport facilities as these are all complimentary parts of a sustainable transport package.

Policy background to support the decision.

- Gloucestershire County Council Local Transport Plan
- Gloucestershire County Council Travel Plan Guide for Developers
- Planning Policy Guidance 3 & Planning Policy Guidance13
- Best Practice Guide: Delivering Travel Plans through the Planning Process. (Department for Transport, 2009)
- Planning Obligations (Office of Deputy Prime Minister, circular 05/ 2005)

More Information?

www.dft.gov.uk

The following table outlines the contributions required for a residential travel plan, for which there are two options;

Option 1

The developer/owner is responsible for funding and implementing the travel plan, , incentives, the appointment of a travel plan coordinator etc. This option required a non-refundable monitoring fee and a bond/deposit, repayable on successful completion of the travel plan or kept to implement remedial measures if the developer/owner does not comply with the agreement.

Option 2

Gloucestershire County Council would absorb all risk and be responsible for the implementation of the travel plan, incentives, the appointment of a travel plan coordinator etc. This option requires a non-refundable monitoring fee and a contribution, repayable only on expiry of planning permission with no building having started. The premium for GCC to deliver the travel plan is to cover the additional risk the organisation incurs and to plan for remedial measures. This option removes any responsibility from the developer for the implementation of the plan (other than hard measures such as walk/cycle links, cycle parking etc, which are spate to the travel plan).

Table 1. Tariff of Contribution Costs/Deposits for Residential Travel Plans - by number of dwellings

Residential units	Breakdown of Deposit/Contribution				Total Deposit/Contribution	
	Develop, implement & manage TP	Incentives at £75 per unit	Individualised Travel Marketing	Monitoring fee	Developer Travel Plan **deposit**	Gloucestershire County Council Travel Plan **contribution**
80	£25,000.00	£6,000.00	£1,600.00	£5,000.00	£37,600.00	£45,120.00
90	£25,000.00	£6,750.00	£1,800.00	£5,000.00	£38,550.00	£46,260.00
100	£25,000.00	£7,500.00	£2,000.00	£5,000.00	£39,500.00	£47,400.00
110	£25,000.00	£8,250.00	£2,200.00	£5,000.00	£40,450.00	£48,540.00
120	£25,000.00	£9,000.00	£2,400.00	£5,000.00	£41,400.00	£49,680.00
130	£25,000.00	£9,750.00	£2,600.00	£5,000.00	£42,350.00	£50,820.00
140	£25,000.00	£10,500.00	£2,800.00	£5,000.00	£43,300.00	£51,960.00
150	£25,000.00	£11,250.00	£3,000.00	£5,000.00	£44,250.00	£53,100.00
160	£25,000.00	£12,000.00	£3,200.00	£5,000.00	£45,200.00	£54,240.00
170	£25,000.00	£12,750.00	£3,400.00	£5,000.00	£46,150.00	£55,380.00
180	£25,000.00	£13,500.00	£3,600.00	£5,000.00	£47,100.00	£56,520.00
190	£25,000.00	£14,250.00	£3,800.00	£5,000.00	£48,050.00	£57,660.00
200	£25,000.00	£15,000.00	£4,000.00	£5,000.00	£49,000.00	£58,800.00
210	£25,000.00	£15,750.00	£4,200.00	£5,000.00	£49,950.00	£59,940.00
220	£25,000.00	£16,500.00	£4,400.00	£5,000.00	£50,900.00	£61,080.00
230	£25,000.00	£17,250.00	£4,600.00	£5,000.00	£51,850.00	£62,220.00
240	£25,000.00	£18,000.00	£4,800.00	£5,000.00	£52,800.00	£63,360.00
250	£25,000.00	£18,750.00	£5,000.00	£5,000.00	£53,750.00	£64,500.00

APPENDIX I

The Planning Inspectorate

Environmental Services
Central Operations
Temple Quay House
2 The Square
Bristol, BS1 6PN

Customer Services: 0303 444 5000
e-mail: Environmentalservices@planninginspectorate.gov.uk

Pegasus Planning Group Ltd
Pegasus House
Querns Business Centre,
Whitworth Road
Cirencester
GL7 1RT

Sent by email:
harry.ramsey@pegasusgroup.co.uk

Your Ref: 20/01069/OUT

Our Ref: APP/B1605/W/21/3273053

Date: 08 July 2021

Dear Mr Ramsey

TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 ('THE EIA REGULATIONS')

Appeal by: Robert Hitchens Limited

Site Address: Land at Oakley Farm, Cheltenham

We refer to the above appeal which commenced on 18 May 2021.

The development proposed consists of "Development comprising up to 250 residential dwellings, associated infrastructure, ancillary facilities, open space and landscaping. Demolition of existing buildings. Creation of new vehicular access from Harp Hill". By virtue of Regulation 5 of the EIA Regulations the development proposed is EIA development.

The content of the Environmental Statement (ES) accompanying the planning application that is the subject of the above appeal has been considered, having regard to Regulation 2(1) and Schedule 4 of the EIA Regulations.

Following examination of the ES, the Secretary of State notifies you by this letter, pursuant to Regulation 25 of the EIA Regulations, that, to comply with Schedule 4 of those regulations (Information for inclusion in environmental statements) the appellant is required to supply the following further information:

- An updated assessment of the likely significant effects from cumulative traffic impacts taking into account anticipated traffic growth in the Cheltenham Borough Council Local Plan up to and including the year 2031. The assessment of cumulative traffic effects in the ES (dated January 2020), and Transport Assessment Addendum prepared by PFA Consulting, do not assess these effects or explain why they would not occur as a result of the Proposed Development's traffic acting cumulatively with anticipated traffic growth resultant from the

delivery of development in the Cheltenham Borough Local Plan which extends to the year 2031.

- A revised non-technical summary (NTS) incorporating all of the elements referred to above.

We would draw your attention to court cases which have stressed the need for all the relevant environmental information in an ES to be comprehensive and easily accessible.

You can access Regulation 25 of the EIA Regulations at the following direct link: http://www.legislation.gov.uk/uksi/2017/571/regulation/25/made

Although it is not a statutory requirement, in the interests of transparency and openness the appellant may wish to publicise the availability of the further information in accordance with Regulations 25(3), 25(4) and 25(8) of the EIA Regulations. Please can you advise the local planning authority if the further information is publicised.

We would be grateful if you could inform us, **within 2 weeks** of the date of this letter, how long you anticipate it will take to prepare this further information, so that an expected submission date can be identified. Please send your response for the attention of the Environmental Services Team using the contact details at the head of this letter.

Please note that in response to the UK Government advice on the COVID-19 outbreak, the Inspectorate's staff are working from home until further notice. In order to support the smooth facilitation of our service we strongly advise that you correspond via the email address at the head of this letter rather than by post. Unfortunately, the Inspectorate cannot guarantee that postal responses will be received promptly by the relevant staff member(s) at this time.

A copy of this letter has been sent by email to Cheltenham Borough Council

Yours sincerely

Richard Hunt

Richard Hunt
EIA and Land Rights Manager
(Signed with the authority of the Secretary of State)

Cc: Cheltenham Borough Council - planningappeals@cheltenham.gov.uk

Where applicable, you can use the internet to submit documents, to see information and to check the progress of cases through the Planning Portal. The address of our search page is:
https://acp.planninginspectorate.gov.uk/