

Appendix B Scoping

Our ref: 679475.SP.17.13.01

Your ref:

Rachel Sandy
Highways England
Brunel House
930 Aztec West
Bristol
BS32 4SR

31 May 2018

FAO Stuart Gardner via email

Dear Stuart,

Transport Assessment Scoping Study –Land West of Park Farm, Thornbury

Thank you for the Transport Assessment Scoping Note (SN) dated 10th April 2018, regarding a proposed residential development of 750 dwellings at Land West of Park Farm in Thornbury, South Gloucestershire. The site is located north-west of Thornbury, in proximity to M5 junction 14. This junction, amongst others, forms part of the Strategic Road Network (SRN) and therefore the proposals have potential to impact on performance and operation.

Highways England is a statutory consultee during the planning application process. As the highway authority, traffic authority and street authority for the SRN, we work to ensure that it operates safely and is managed in the public interest, both in respect of current activities and long-term operation and integrity.

As noted previously, the development has the potential to impact on the operation of the SRN. Highways England is therefore required to advise on impacts and the need for mitigation to ensure that the SRN continues to operate safely and efficiently. We therefore welcome early engagement.

We have reviewed the SN presented and Highways England's response is set out below.

Development Proposals

The site is intended to be a residential-led development comprising up to 750 dwellings. The proposals also could also include community facilities including a community hub, primary school, local retail and a community hall. These uses are subject to discussion with local planning officers and will need to be confirmed with Highways England at the earliest possible opportunity.

Policy Context

The South Gloucestershire Core Strategy Policy CS33 Housing Opportunity identifies the preferred location for a housing opportunity area is to the north of Thornbury. Policy

CS33 outlines that potential exists for up to 500 dwellings to be delivered within the plan period, but that the housing capacity of the area north of Thornbury will be confirmed through the satisfactory completion of technical work alongside provision for infrastructure, including transport.

Within the emerging West of England (WoE) Joint Spatial Plan (JSP) document entitled “Towards the Emerging Spatial Strategy Document” dated November 2017, Thornbury is referred to as a ‘strategic development location’ able to accommodate up to 500 residential dwellings, but with a location referred to as being ‘north of Thornbury’. The JSP also refers to ‘likely transport mitigation’ needed to accommodate such a site, for which improvements to M5 J14 are specified. This is also referred to in the accompanying Joint Transport Study (JTS).

With the JSP still at an initial stage, and no specific reference to the Land West of Park Farm residential proposals in the Local Plan, Highways England requests South Gloucestershire Council confirm if the proposals are consistent with the Local Plan. This is required, as this has implications for Highways England making recommendations on planning application submission, in the context of applying DfT Circular 02/2013 policy.

Scope of Assessment

At present, the development impacts on the SRN are not known, and therefore we are unable to determine the area of SRN assessment required. The SN does not indicate what assessments are to be provided for the SRN. However, given the scale of development and the position of the site, M5 junctions 14 and 16 are likely to require assessment. It is strongly recommended that contact is made with Highways England South West Spatial Planning Team (rachel.sandy@highwaysengland.co.uk) to arrange a scoping meeting so that the assessment area can be agreed.

Road Safety

It is expected that a future transport assessment would analyse personal injury collision data for the most recent five-year period. This should include injury accidents at M5 junction 14 and potentially M5 junction 16.

Development Travel Demand - Residential Trip Generation

The SN proposes that the approach to residential trip generation follows the methodology employed for the Land at Park Farm, Butt Lane development (approved). Person trip rates have been derived using TRICS version 7.4.4 and vehicular trip rates have been determined by applying 2011 Census Journey to Work mode split for MSOA South Gloucestershire 001 to the person trip rates derived from TRICS.

Highways England accept the above methodology and the trip rates set out in Table 2.2. However, we understand that SGC has requested a hybrid approach to trip generation utilising a nearby donor site. Highways England request sight of this additional analysis to ensure that the TRICS/Census JTW approach is comparable and robust.

Should future mode shift targets related to the Travel Plan or internalisation assumptions be identified as a result of the community facilities, these should be provided as the earliest convenience. We would welcome ongoing discussion in this respect should either approach be intended.

Comments made by Highways England above should be taken in to account when preparing the TA. Should the proposed residential trip rates change as a result of discussions around the provision of on-site community facilities or the travel plan, then these should be agreed with Highways England, prior to any modelling work being undertaken.

Distribution and Assignment

No information has been provided within the SN regarding the intended approach for trip distribution, although the SN refers to trip assignment being '*based on observed turning counts at junctions surveyed in November 2017*'. In respect of the SRN, no counts were undertaken at M5 junctions 14 or 16.

For a predominantly residential site, consideration should be given to the use of 'journey to work' census data (2011) to inform trip distribution. Assignment should take account of routes providing the shortest journey time, in conjunction with a good standard carriageway and signed routes. The method of trip distribution / assignment and the resulting impact on the SRN, should be agreed with Highways England prior to any modelling being undertaken.

Assessment of Transport Impacts

Forecast Years

We note that no Opening Year assessment is proposed. Circular 02/2013 requires capacity assessment for an 'Opening Year' scenario, for which is defined as the date at which the development first becomes available for occupation, and is clear in stating that an assessment should be provided, unless agreed otherwise. In this case, an Opening Year assessment which comprises the following scenarios should be undertaken:

- Opening Year with committed development and committed improvements to M5 junction 14 /16 (if any);
- Opening Year with committed development and committed improvements to M5 junction 14 /16(if any) + proposed development; and
- Opening Year with committed development and committed improvements to M5 junction 14 /16 (if any) + proposed development + required mitigation.

The SN sets out that the Future Year to be assessed in the TA will be 2028. This is in line with Circular 02/2013 which stipulates that modelling of the Future Year should be 10 years post the registration date of the planning application, or the end of the relevant Local Plan, whichever is greater. The Future Year modelling scenarios are therefore accepted by Highways England.

Highways England has worked with relevant Local Authorities, including South Gloucestershire Council to maintain a database of applications and consents in the vicinity of M5 junction 14. This excel database is able to provide a more accurate reflection of traffic uplifts and turning movements related to M5 J14. This can be provided under a separate cover.

Impact Assessment and Mitigation

As noted above, the SN does not currently include an impact assessment at M5 junction 14 and 16. Highways England requires that these junctions are included.

In terms of M5 junction 14, Highways England is already aware that this junction experiences significant queuing during the weekday peak hours and is sensitive to relatively minor trip increases.

The approved Highways England VISSIM model is the most appropriate and most up-to-date means to undertake the assessment of this junction. The VISSIM model covers M5 junction 14 and the B4059/A38 junction positioned to the west. Highways England has agreed to make the VISSIM model available to developers free of charge, subject to them signing a release agreement. You would also need to ensure that the model includes all traffic relevant to committed /allocated development for an opening and future year scenario, and these will require agreement with Highways England before capacity assessments are undertaken.

Highways England draws your attention to Paragraph 9 and 10 of Circular 02/2013 which refers to development proposals being unacceptable, by virtue of a severe impact, if they increase demand for use of a section of the network that is already operating over-capacity, or cannot be safely accommodated within the existing infrastructure provision, unless suitable mitigation is agreed.

Given that M5 J14 is already operating at capacity, mitigation is likely to be required as a result of the Land West of Park Farm proposals. This conclusion is also supported by the emerging West of England Joint Spatial Plan and Transport Strategy, which also refers to the need for an improvement scheme at M5 junction 14 to accommodate planned growth.

Highways England is working collaboratively with South Gloucestershire Council, Gloucestershire County Council and other developers in the area to identify potential improvement options at M5 junction 14, including a long-term strategy for accommodating planned growth in the area. These discussions are ongoing and at the present time, there is no committed or planned schemes at the junction. Therefore, if necessary, you will be required to identify a suitable mitigation scheme, in order to accommodate your development traffic impacts on M5 J14 in accordance with Circular 02/2013.

Travel Planning

The SN suggests that a Travel Plan will be prepared to accompany a future planning application submission. Highways England welcomes early engagement regarding the provision of a Travel Plan in reducing vehicle trips impacting on the SRN.

Summary

Highways England has undertaken a review of the SN prepared for a proposed development at Land West of Park Farm, Thornbury, South Gloucestershire. A number of issues regarding the assessment of the development impact on the SRN have been raised. The approach to testing the development impact on the SRN, particularly M5 J14 and J16 should be agreed with Highways England at the earliest opportunity.

With M5 junction 14 operating at and near capacity during peak periods, mitigation may be required for development traffic to be safely accommodated in this location.

Highways England's comments imply no predetermined view as to the acceptability of the proposed development in traffic, environmental or highways terms.

We trust that this response will assist you in the preparation of a transport assessment/evidence to support a future planning application submission. Should you wish to discuss any of these issues in more detail, please do not hesitate to contact me.

Yours sincerely,

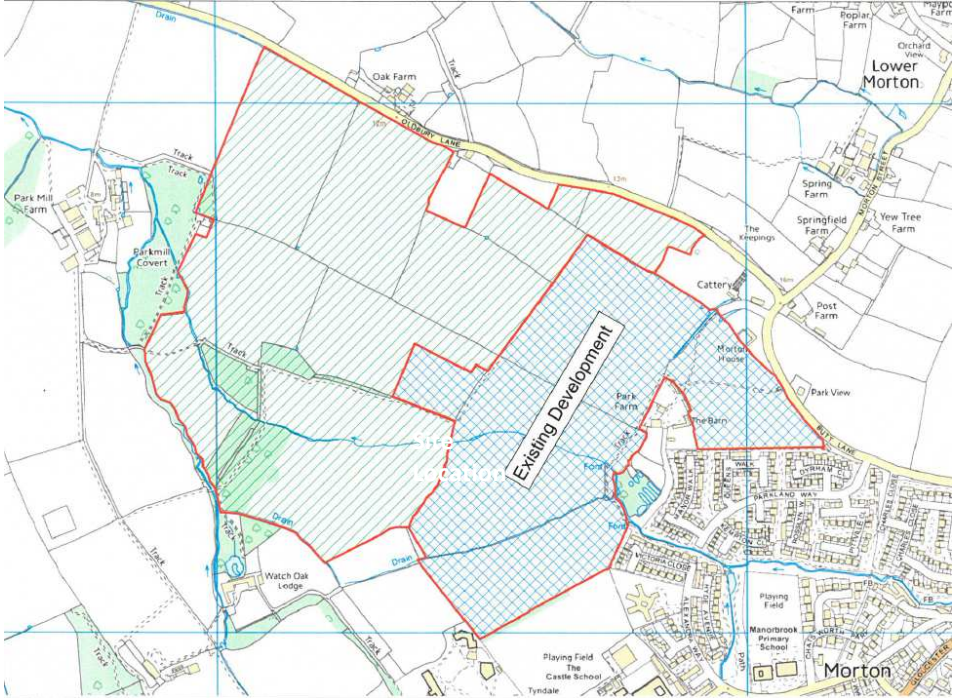
Rachel Sandy

Rachel Sandy
Highways Development Management Team Leader
Highways England – Operations South West
Email: Rachel.Sandy@highwaysengland.co.uk

Cc: Myles Kidd, South Gloucestershire Council

TECHNICAL NOTE

Job Name: Land West of Park Farm, Thornbury
Job No: 39209
Note No: 5503/001
Date: 10 April 2018
Prepared by: Liz Keen
Subject: Transport Assessment Scoping Note

Item	Subject
1.	<p>Introduction</p> <p>Peter Brett Associates LLP (PBA) has been commissioned by Barwood Development Securities Ltd to prepare a Transport Assessment and Framework Residential Travel Plan in support of an outline planning application for the proposed development of approximately 46Ha of land to the north west of Thornbury, within the administrative boundary of South Gloucestershire Council (SGC). The location of the site is shown on Figure 1.</p> <p>Figure 1 – Site Location</p>  <p>A Pre-Application Submission Statement produced by Savills has been submitted (March 2018) for a proposed development of up to 750 residential units. With regards to the planning application, the intention is to submit an application in outline form, with all matters reserved except for access. The development could also deliver a community hub, which could contain community facilities such as a primary school, shops and a community hall (subject to discussions with officers).</p>



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	<p>As shown in Figure 1 the site is located immediately adjacent to the existing Barratt Homes development 'Land at Park Farm Butt Lane' of up to 500 dwellings (planning application no. PT11/1442/O).</p> <p>This note has been prepared in order to agree the scope of the Transport Assessment (TA) and Framework Residential Travel Plan (RTP) with SGC in their role as Local Highway Authority (LHA). The scope of the TA and RTP set out in this note has been established using prevailing policy in the National Planning Policy Framework (NPPF) and guidance set out in the Planning Practice Guidance (PPG).</p> <p>The M5 motorway is accessed approximately 5.5km northeast of the site at junction 14. We will consult with Highways England in relation to this application.</p>
2.	<p>Proposed Transport Assessment Structure</p> <p><u>Introduction</u></p> <p>This section will provide a brief overview of the development proposals and location.</p> <p><u>Policy Review</u></p> <p>In setting the context for the TA, and to guide the assessment, relevant national and local policies / transport planning guidance will be reviewed, including but not limited to:</p> <ul style="list-style-type: none"> ▪ National Planning Policy Framework; ▪ Planning Practice Guidance; ▪ Joint Local Transport Plan 3 (2011-2026); ▪ South Gloucestershire Local Plan, Core Strategy; ▪ West of England Joint Transport Study; and ▪ Draft West of England Joint Spatial Plan. <p>The TA will provide a summary of this review.</p> <p><u>Existing Conditions</u></p> <p>This section of the TA will provide a review of the current transport and accessibility conditions relating to the site. This will include:</p> <ul style="list-style-type: none"> ▪ Pedestrian and cycle facilities and infrastructure, including a review of footways, footpaths, pedestrian crossings, cycle paths, cycle ways and cycling infrastructure; ▪ Public transport services and provision, including a review of existing bus services in the vicinity of the site, existing bus stop facilities and their proximity to the site; ▪ Accessibility, providing a review of local facilities and amenities that are accessible from the site by sustainable modes of transport, including routes to local schools, retail and local employment sites; and ▪ Highway network, a description of the local highway network, including the A38, and a review of operational information which can be taken from traffic surveys and third party information. This section will include a review of Personal Injury Collision (PIC) data for the previous three years, as required by the national and local policies. It is proposed that the PIC data review covers the area along the site frontage on Oldbury Lane as well as the area around each junction in the traffic impact assessment (see Figure 2 below).



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	<p><i>It is requested that SGC provide details of any committed pedestrian and cycling/public transport/highway schemes of relevance to the proposed development.</i></p> <p><u>Development Proposals</u></p> <p>This section of the TA will describe the proposed development and will present details of the proposed access strategy for the scheme of up to 750 dwellings.</p> <p>The form and design of the site access will be informed by trip generation, distribution and capacity testing. For a scheme of up to 750 dwellings it is considered that two points of access will be required and it is proposed that these both be located on Oldbury Lane. The site accesses will be designed to concept level suitable for the outline planning application and included within the TA.</p> <p>A legal commitment is in place for the developer of the adjacent Park Farm development (shown in Figure 1) to provide a 5.5m wide vehicle link with accompanying footways up to its boundary with the proposed development. It is envisaged that this link will be utilised for bus, pedestrian and cycle movement only, to maximise the use of sustainable modes.</p> <p>How the development will integrate with the surrounding area will be described in this section. A comprehensive sustainable transport strategy for the site to promote non-motorised traffic will also be provided, emphasising walking, cycling, and public transport.</p> <p>Residential parking provision will be provided in accordance with South Gloucestershire's car parking standards as set out in the Residential Parking Standards SPD, adopted in December 2013.</p> <p><u>Traffic Surveys</u></p> <p>Having regard to the surrounding highway network, site traffic will predominantly impact on junctions to the east of the site i.e. within Thornbury or towards the A38 and M5.</p> <p>As agreed with SGC in October 2017, traffic surveys have been undertaken at the following junctions, and shown on Figure 2 (see Appendix A for email correspondence):</p> <ol style="list-style-type: none"> 1. Butt Lane / Morton Way / Gloucester Road Staggered Crossroad Junction; 2. Gloucester Road / A38 Priority Junction; 3. Grovesend Road / Morton Way, Midland Way Roundabout; 4. Grovesend Road / A38 / Tytherington Road Signalised Staggered Junction; 5. B4061 Gloucester Road / Quaker Lane / The Plain / Castle Street / High Street Mini-roundabout and Priority Junctions; 6. A38 / B4509 Signalised Junction; 7. A38 / Old Gloucester Road Priority Junction; and 8. A38 / Church Road Signalised Junction. <p>The traffic surveys were undertaken during the AM (07.00-10.00) and PM (16.00-19.00) periods on Tuesday November 14th 2017. These flows will form the 2017 observed base situation. Queue surveys were also undertaken over the same time periods, which will be used to validate the junction models to be set up as part of the traffic impact assessment.</p>



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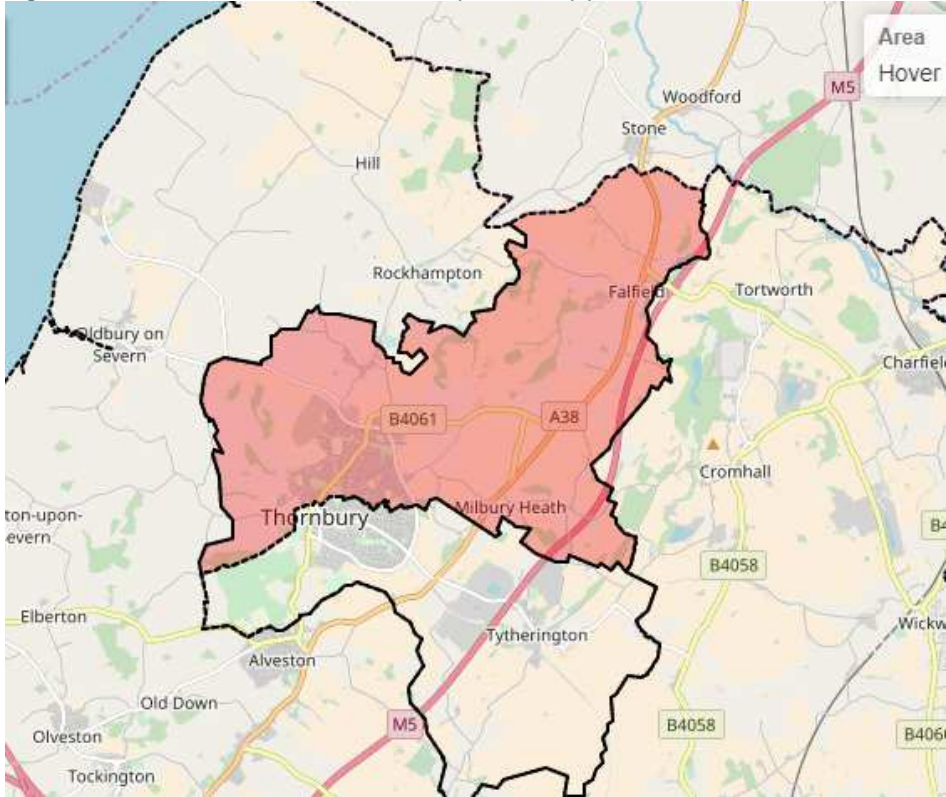
Item	Subject
	<p>Five Automatic Traffic Count (ATC) surveys were also laid at the following locations for a one-week period from Thursday 16/11/17-22/11/17:</p> <ol style="list-style-type: none"> 1. Oldbury Lane (west side of site frontage); 2. Oldbury Lane (east side of site frontage); 3. B4061 Gloucester Road (north of Butt Lane/Morton Way); 4. B4061 Gloucester Road (north of Eastland Road); and 5. Alveston Hill. <p>The observed 85th percentile speeds from the ATC's in the vicinity of the site frontage will be used to inform the design of the site accesses.</p> <p>The location of the MCC and ATC surveys are shown in Figure 2.</p> <p>Figure 2 – Proposed Traffic Survey Locations</p>

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Item	Subject												
	<p><u>Development Travel Demand</u></p> <p>The TA will set out the vehicle trip generation of the proposed development to inform the traffic impact assessment on the local highway network. At the time of writing, since details of possible community facilities are unknown, trip generation has focused on the residential element only. If community facilities of a large enough scale to attract off-site traffic are included in the final proposals for the development, these will be discussed with SGC at a later date, and considered in the travel demand section of the TA as appropriate. Any potential internal trips will also be considered as part of the trip generation calculations.</p> <p>In line with the methodology employed for the approved Land at Park Farm Butt Lane development, person trip rates have been determined through interrogation of the most up-to-date TRICS database, version 7.4.4. The following search criteria was applied:</p> <ul style="list-style-type: none"> ▪ Main land use: Residential (03); ▪ Sub land use: Houses Privately Owned (A); ▪ Multi-modal trip rates; ▪ Regions: sites in London and Ireland were excluded; ▪ Location types: Suburban Area, Edge of Town and Neighbourhood Centre ▪ Week days only; and ▪ Number of units 100+ (actual range 108-805). <p>The resulting person trips rates are summarised in Table 2.1. The TRICS output is included at Appendix B.</p> <p>Table 2.1 – Person Trip Rates (8 sites)</p> <table border="1"> <thead> <tr> <th></th> <th>AM</th> <th>PM</th> </tr> </thead> <tbody> <tr> <td>Arrivals</td> <td>0.168</td> <td>0.484</td> </tr> <tr> <td>Departures</td> <td>0.675</td> <td>0.281</td> </tr> <tr> <td>Total</td> <td>0.843</td> <td>0.765</td> </tr> </tbody> </table> <p>Following the Land at Park Farm Butt Lane methodology baseline vehicular trip rates have been determined by applying 2011 Census journey to work mode split for MSOA South Gloucestershire 001 (E02003090) to the person trip rates shown above. The area covered by this MSOA includes residential areas near the site in the north of Thornbury (shown in Figure 3). The mode split of residents in this area is considered to best represent the future baseline mode split of residents in the proposed development at peak hours.</p>		AM	PM	Arrivals	0.168	0.484	Departures	0.675	0.281	Total	0.843	0.765
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	<p>Figure 3 - MSOA South Gloucestershire 001 (E02003090) (Source: Nomis)</p>  <p>The baseline mode split of this MSOA and the resulting trip rates by mode is summarised in Table 2.2.</p> <p>Table 2.2 – Baseline Mode Split and Trip Rates by mode (South Gloucestershire 001)</p> <table border="1"> <thead> <tr> <th rowspan="2">Mode</th> <th rowspan="2">%</th> <th colspan="2">Trip Rate</th> </tr> <tr> <th>AM</th> <th>PM</th> </tr> </thead> <tbody> <tr> <td>Car Driver</td> <td>75.4%</td> <td>0.635</td> <td>0.576</td> </tr> <tr> <td>Car Passenger</td> <td>5.1%</td> <td>0.043</td> <td>0.039</td> </tr> <tr> <td>Bus</td> <td>1.9%</td> <td>0.016</td> <td>0.015</td> </tr> <tr> <td>Rail</td> <td>0.6%</td> <td>0.005</td> <td>0.004</td> </tr> <tr> <td>Bicycle</td> <td>2.8%</td> <td>0.024</td> <td>0.022</td> </tr> <tr> <td>Walk</td> <td>11.7%</td> <td>0.099</td> <td>0.090</td> </tr> <tr> <td>Other</td> <td>2.6%</td> <td>0.022</td> <td>0.020</td> </tr> <tr> <td>Total</td> <td>100.0%</td> <td>0.843</td> <td>0.765</td> </tr> </tbody> </table> <p>Using the baseline mode split set out in Table 2.2, the TA will consider the anticipated mode shift as a result of the predicted benefits of the transport strategy and wider travel trends.</p> <p>Assignment</p> <p>It is proposed to assign development traffic onto the highway network in the study area based on observed turning counts at the junctions surveyed in November 2017 (Figure 2).</p>	Mode	%	Trip Rate		AM	PM	Car Driver	75.4%	0.635	0.576	Car Passenger	5.1%	0.043	0.039	Bus	1.9%	0.016	0.015	Rail	0.6%	0.005	0.004	Bicycle	2.8%	0.024	0.022	Walk	11.7%	0.099	0.090	Other	2.6%	0.022	0.020	Total	100.0%	0.843	0.765
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TECHNICAL NOTE

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	<p>Forecast Years</p> <p>The following assessment years are proposed:</p> <ul style="list-style-type: none"> ▪ Base year (2017); and ▪ Year of full build out (2028). <p>Future year traffic flows will be generated by applying TEMPro growth rates to the 2017 observed flows. The most up-to-date version of TEMPro and associated NTM Dataset will be used. The proposed criteria are: geographical area South Gloucestershire 001 (E02003090) (shown in Figure 3), all trip purposes, weekday AM and weekday PM, origin/destination trip end type. The resulting local growth rates are shown in Table 2.3.</p> <p>Table 2.3 – TEMPro Local Growth Rates (South Gloucestershire 001)</p> <table border="1"> <thead> <tr> <th></th> <th>AM</th> <th>PM</th> </tr> </thead> <tbody> <tr> <td>2017-2028</td> <td>1.1738</td> <td>1.1705</td> </tr> </tbody> </table> <p>The Transport Assessment will consider the Barratt Homes Land at Park Farm development adjacent to the proposed development site. The peak hour traffic flows will be obtained from the Transport Assessment produced by FMW Consultancy (FMW0388 dated March 2011).</p> <p><i>If there are any other committed developments that SGC considers have a reasonable degree of certainty coming forward in the next three years (in line with guidance in the NPPG), and which are not covered by TEMPro assumptions, please provide details such that we can incorporate traffic associated with them into our assessment.</i></p> <p>Impact Assessment</p> <p>In the first instance, the likely proportional impact of development traffic will be assessed on all of the junctions in the study area shown in Figure 2. Where the proposed development is predicted to lead to increases in traffic considered sufficient to require further analysis, junction capacity assessment will be undertaken. Priority junctions will be assessed in the latest version of Junctions 9 ARCADY and Junctions 9 PICADY, and signalised junctions will be assessed in the latest version of LinSig3.</p>		AM	PM	2017-2028	1.1738	1.1705
	AM	PM					
2017-2028	1.1738	1.1705					
3.	<p>Mitigation</p> <p>This section of the TA will describe any measures identified as necessary to mitigate transport impacts of the development. In line with national planning policy, the strategy will focus on sustainable alternatives to travel in the first instance, primarily through the Travel Plan, and will only consider physical highway measures once sustainable measures are exhausted.</p> <p>Proposed Framework Residential Travel Plan Structure</p> <p>As part of the outline planning application, a Framework Residential Travel Plan (RTP) will be developed. The RTP will set out the overarching principles and main objective for the site (i.e. to reduce the number of single-occupant-car trips associated with the site), a suite of potential Travel Plan Measures to achieve this objective and Initial Targets against which the success of the Travel Plan can be measured.</p>						



TECHNICAL NOTE

Item	Subject
	<p>The TP will be produced in line with best practice, as well as National and Local policy documents. It will have the following structure:</p> <ul style="list-style-type: none"> ▪ Introduction; ▪ Aims and objectives; ▪ Site location, existing conditions and accessibility; ▪ Development proposals; ▪ Proposed Travel Plan measures; ▪ Implementation, targets and monitoring; and ▪ Action plan.
4.	<p>Conclusion</p> <p>This note sets out the proposed scope of Transport Assessment required to support an outline planning application to be made for up to 750 dwellings, at land west of Park Farm, Thornbury, South Gloucestershire.</p> <p>The application would also be supported by a Framework Residential Travel Plan, which will be undertaken in line with prevailing policy and which would be instrumental to achieving mode shift away from use of the private car.</p> <p>We believe the scope of assessment described within this note will provide sufficient analysis for SGC, as Local Highway Authority to reach an informed opinion as to the impact of the proposals. <i>We would welcome your confirmation that the proposed scope of assessment, as set out in this note, is acceptable.</i></p> <p>We will also consult with Highways England in relation to this application.</p>

DOCUMENT ISSUE RECORD

Technical Note No	Rev	Date	Prepared	Checked	Reviewed (Discipline Lead)	Approved (Project Director)
39209/5503/001	-	10.04.18	EK	SG	RH	NT

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Peter Brett Associates LLP 10 Queen Square Bristol BS1 4NT

T: +44 (0)117 332 7840 E: bristol@peterbrett.com



TECHNICAL NOTE

Appendix A – Correspondence



TECHNICAL NOTE



Elizabeth Keen

From: Elizabeth Keen
Sent: 26 March 2018 11:17
To: Elizabeth Keen
Subject: FW: West of Park Farm Thornbury

From: Christopher Rose [mailto:Christopher.Rose@southglos.gov.uk]
Sent: 31 October 2017 11:23
To: Robert Holloway <rholloway@peterbrett.com>; Elizabeth Keen <ekeen@peterbrett.com>
Cc: Jason Horwood <jhorwood@peterbrett.com>; Streetworks <streetworks@southglos.gov.uk>
Subject: RE: West of Park Farm Thornbury

Rob.
Next week and the following would generally be ok.
You should however check with our Streetworks Team and HE to establish if there are any roadworks, diversions etc., which would influence the counts.
Manual turning counts should be taken between Tuesday and Thursday.
ATC's should cover at least one week, preferably two.
The study area manual and ATC will need to be extended to include A38 junctions with the B4509, Old Gloucester Road, B4061 and Church Road.
You should speak to HE about junction 14 and 16 on the M5. There are certainly capacity issues at J14.
The list is not exhaustive as there may be other junctions identified once the trip rates, distribution and assignment are agreed.
I hope this helps.

Regards

Chris

Chris Rose

Senior Engineer

Transportation Development Control

Department of Environment and Community Services

South Gloucestershire Council

PO Box 299

Civic Centre

High Street

BRISTOL
BS15 0DR

Tel: +44 (0)1454 863727 / Fax: +44 (0)1454864727 ✉:christopher.rose@southglos.gov.uk

From: Robert Holloway [mailto:rholloway@peterbrett.com]
Sent: 31 October 2017 11:01
To: Christopher Rose <Christopher.Rose@southglos.gov.uk>; Elizabeth Keen <ekeen@peterbrett.com>

Cc: Jason Horwood <jhorwood@peterbrett.com>

Subject: RE: West of Park Farm Thornbury

Importance: High

Hi Chris,

We will make that recommendation to the client and planners.

In the meantime, the Christmas season is nearly upon us and we need to commission surveys.

I'd be grateful if you could please confirm the surveys Liz suggested yesterday present a reasonable study area for a future transport assessment. Notwithstanding until some trip gen/distribution work is undertaken we cannot be 100% certain and some further surveys may need to follow.

If you are really unable to provide an opinion on where the surveys are located, I hope you will at least be able to confirm when you will be happy for surveys to be undertaken in principle. i.e. when is the latest date in 2017 we could undertake surveys and not clash with abnormal traffic conditions as we need to have them undertaken this year.

Can you please confirm that next week is acceptable, and potentially up to the end of the following week (17th November).

Thank you.

Kind regards,

Rob Holloway

Senior Associate

For and on behalf of Peter Brett Associates LLP - [Bristol](#)



t 01173327877

e rholloway@peterbrett.com

w peterbrett.com

From: Christopher Rose [<mailto:Christopher.Rose@southglos.gov.uk>]

Sent: 31 October 2017 10:55

To: Elizabeth Keen <ekeen@peterbrett.com>

Cc: Robert Holloway <rholloway@peterbrett.com>; Jason Horwood <jhorwood@peterbrett.com>

Subject: RE: West of Park Farm Thornbury

Thanks Elizabeth.

As there are a number of different issues relating to the sites around Thornbury can you please advise your client to submit a formal Pre-Application Inquiry so that a comprehensive planning response can be provided to the development proposal. The forms are available on the Council's web site.

<http://www.southglos.gov.uk/environment-and-planning/planning/development-control/pre-application-planning-advice/>

Once this has been done Transport advice can be provided via the planning case officer.

I hope this information is of help.

Regards

Chris

Chris Rose

Senior Engineer

Transportation Development Control

Department of Environment and Community Services

South Gloucestershire Council

PO Box 299

Civic Centre

High Street

BRISTOL
BS15 0DR

Tel: +44 (0)1454 863727 / Fax: +44 (0)1454864727 ✉:christopher.rose@southglos.gov.uk

From: Elizabeth Keen [<mailto:ekeen@peterbrett.com>]

Sent: 30 October 2017 16:05

To: Christopher Rose <Christopher.Rose@southglos.gov.uk>

Cc: Robert Holloway <rholloway@peterbrett.com>; Jason Horwood <jhorwood@peterbrett.com>

Subject: RE: West of Park Farm Thornbury

Chris,

It was good to discuss the West of Park Farm site with you earlier today. I will be out of the office tomorrow so if you are able to copy my colleagues Rob and Jason (cc'd in) to your response it would be greatly appreciated. They will then be able to commission the traffic surveys in my absence.

Kind regards,

Elizabeth Keen

Engineer

For and on behalf of Peter Brett Associates LLP - [Bristol](#)



t 01173327843

e ekeen@peterbrett.com

w peterbrett.com

From: Elizabeth Keen

Sent: 30 October 2017 11:20

To: 'christopher.rose@southglos.gov.uk' <christopher.rose@southglos.gov.uk>

Subject: West of Park Farm Thornbury

Chris,

I am part of the transport planning team for a new proposed site of up to 800 residential units at 'West of Park Farm' in Thornbury. I understand from one of your colleagues that this site might fall into your patch, and would like an initial conversation with you regarding traffic surveys, which we would like to commission to take place next week.

To aid our discussion I have attached a plan showing our proposed locations for Manual Classified Count (MCC) and ATC surveys. The plan also shows the indicative site location which is bordered by Oldbury Lane and the new development at Park Farm.

I hope that it will be convenient to call you shortly.

Kind regards,

Elizabeth Keen

Engineer

For and on behalf of Peter Brett Associates LLP - [Bristol](#)

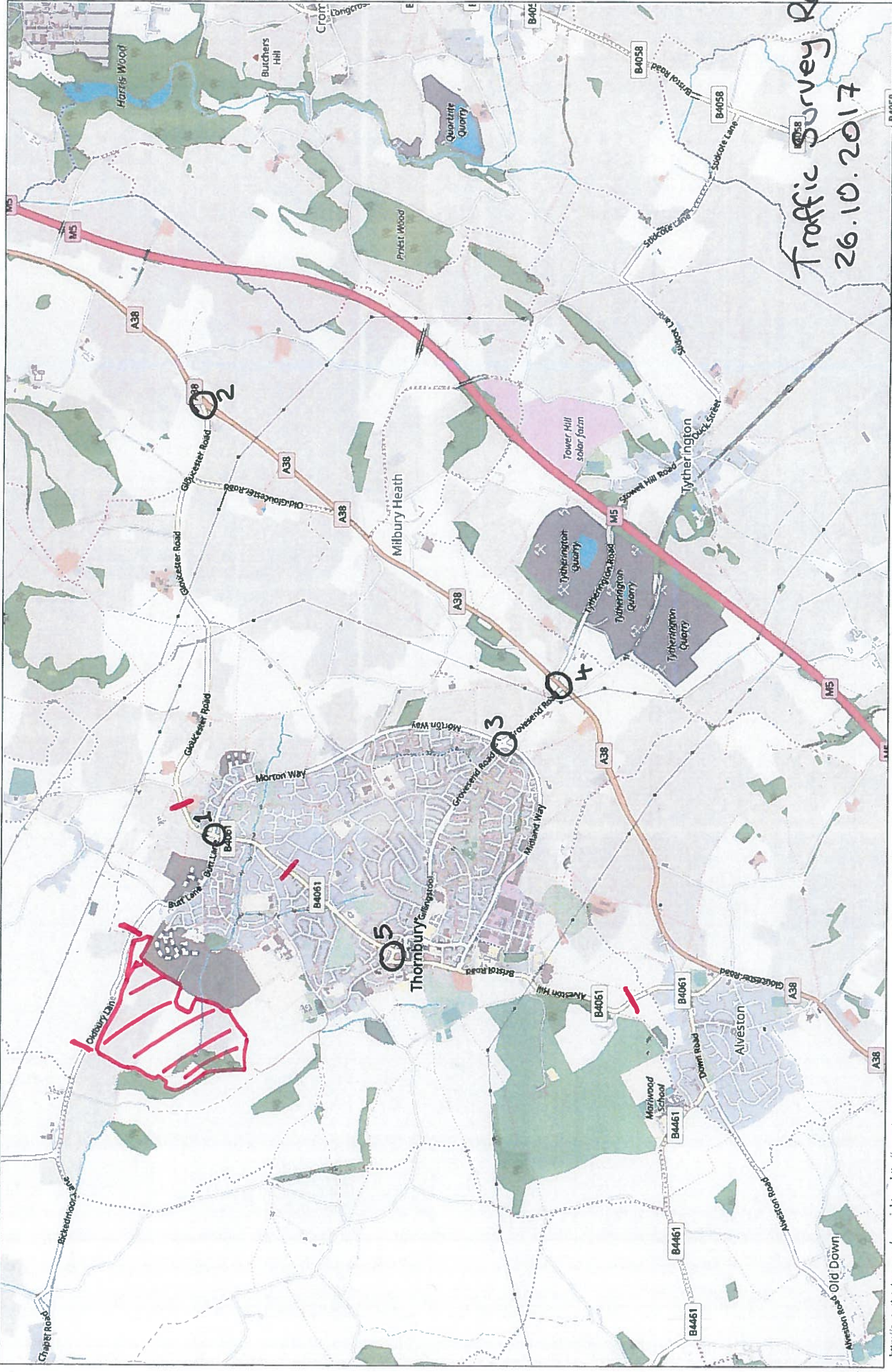


t 01173327843

e ekeen@peterbrett.com

w peterbrett.com

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Traffic Survey Request
26.10.2017

- O MCC
- ATC
- Indicative site location

TECHNICAL NOTE

Appendix B – TRICS Output



TECHNICAL NOTE



Calculation Reference: AUDIT-706710-180115-0136

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST	
	WS WEST SUSSEX	2 days
03	SOUTH WEST	
	DV DEVON	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
11	SCOTLAND	
	FA FALKIRK	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: 108 to 805 (units:)
 Range Selected by User: 100 to 805 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 27/03/17

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
Wednesday	1 days
Thursday	3 days
Friday	2 days

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

Selected survey types:

Manual count	8 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 undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	3
Neighbourhood Centre (PPS6 Local Centre)	1

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	6
No Sub Category	2

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 8 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:

1,001 to 5,000	2 days
5,001 to 10,000	1 days
10,001 to 15,000	3 days
20,001 to 25,000	2 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	3 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	5 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	2 days
No	6 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	8 days
-----------------	--------

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

LIST OF SITES relevant to selection parameters

1	DH-03-A-02 LEAZES LANE ST HELEN AUCKLAND BISHOP AUCKLAND Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of dwellings: 125 <i>Survey date: MONDAY 27/03/17</i>	MIXED HOUSES DURHAM	<i>Survey Type: MANUAL</i>
2	DV-03-A-02 MILLHEAD ROAD HONITON Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 116 <i>Survey date: FRIDAY 25/09/15</i>	HOUSES & BUNGALOWS DEVON	<i>Survey Type: MANUAL</i>
3	FA-03-A-02 ROSEBANK AVENUE & SPRINGFIELD DRIVE FALKIRK Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 161 <i>Survey date: WEDNESDAY 29/05/13</i>	MIXED HOUSES FALKIRK	<i>Survey Type: MANUAL</i>
4	NE-03-A-02 HANOVER WALK SCUNTHORPE Edge of Town No Sub Category Total Number of dwellings: 432 <i>Survey date: MONDAY 12/05/14</i>	SEMI DETACHED & DETACHED NORTH EAST LINCOLNSHIRE	<i>Survey Type: MANUAL</i>
5	NY-03-A-06 HORSEFAIR BOROUGHBRIDGE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 115 <i>Survey date: FRIDAY 14/10/11</i>	BUNGALOWS & SEMI DET. NORTH YORKSHIRE	<i>Survey Type: MANUAL</i>
6	SH-03-A-04 ST MICHAEL'S STREET SHREWSBURY Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of dwellings: 108 <i>Survey date: THURSDAY 11/06/09</i>	TERRACED SHROPSHIRE	<i>Survey Type: MANUAL</i>
7	WS-03-A-04 HILLS FARM LANE BROADBRIDGE HEATH HORSHAM Edge of Town Residential Zone Total Number of dwellings: 151 <i>Survey date: THURSDAY 11/12/14</i>	MIXED HOUSES WEST SUSSEX	<i>Survey Type: MANUAL</i>
8	WS-03-A-06 ELLIS ROAD S BROADBRIDGE HEATH WEST HORSHAM Edge of Town Residential Zone Total Number of dwellings: 805 <i>Survey date: THURSDAY 02/03/17</i>	MIXED HOUSES WEST SUSSEX	<i>Survey Type: MANUAL</i>

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	8	252	0.109	8	252	0.380	8	252	0.489
08:00 - 09:00	8	252	0.168	8	252	0.675	8	252	0.843
09:00 - 10:00	8	252	0.210	8	252	0.255	8	252	0.465
10:00 - 11:00	8	252	0.196	8	252	0.243	8	252	0.439
11:00 - 12:00	8	252	0.186	8	252	0.222	8	252	0.408
12:00 - 13:00	8	252	0.226	8	252	0.226	8	252	0.452
13:00 - 14:00	8	252	0.229	8	252	0.231	8	252	0.460
14:00 - 15:00	8	252	0.225	8	252	0.284	8	252	0.509
15:00 - 16:00	8	252	0.518	8	252	0.269	8	252	0.787
16:00 - 17:00	8	252	0.441	8	252	0.259	8	252	0.700
17:00 - 18:00	8	252	0.484	8	252	0.281	8	252	0.765
18:00 - 19:00	8	252	0.388	8	252	0.261	8	252	0.649
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.380			3.586			6.966

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	108 - 805 (units:)
Survey date date range:	01/01/09 - 27/03/17
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Elizabeth Keen

From: Stuart Gardner
Sent: 15 June 2018 15:54
To: Sandy, Rachel; 'Gorski, Nigel/BHX'
Cc: Rob Holloway; Elizabeth Keen; Garnier, Chrystèle
Subject: RE: Land West of Park Farm

Rachel

Further to our conversation today, I wish to confirm that we will not be able to undertake the modelling to include within our Transport Assessment prior to submission. We will endeavour to complete this post application.

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
m 07764515010
e sgardner@peterbrett.com
w peterbrett.com

From: Stuart Gardner
Sent: 06 June 2018 14:53
To: 'Sandy, Rachel' <Rachel.Sandy@highwaysengland.co.uk>; 'Gorski, Nigel/BHX' <Nigel.Gorski@jacobs.com>
Cc: Rob Holloway <rholloway@peterbrett.com>; Elizabeth Keen <ekeen@peterbrett.com>; Garnier, Chrystèle <Chrystele.Garnier@highwaysengland.co.uk>
Subject: RE: Land West of Park Farm

Hi Rachel, yes they are vehicle trips

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
e sgardner@peterbrett.com
w peterbrett.com

From: Sandy, Rachel [<mailto:Rachel.Sandy@highwaysengland.co.uk>]
Sent: 06 June 2018 14:53
To: Stuart Gardner <sgardner@peterbrett.com>; 'Gorski, Nigel/BHX' <Nigel.Gorski@jacobs.com>
Cc: Rob Holloway <rholloway@peterbrett.com>; Elizabeth Keen <ekeen@peterbrett.com>; Garnier, Chrystèle <Chrystele.Garnier@highwaysengland.co.uk>
Subject: RE: Land West of Park Farm

Stuart

Sorry, I've assumed the trip rates provided are vehicle trip rates due to the surveys, but I should have asked. Please can you confirm?

Thanks

Rachel Sandy

Highways Development Management Team Leader – South West

Highways England | Brunel House | 930 Aztec West | Bristol | BS32 4SR

Tel: +44 (0) 300 4704303 | **Mob:** 07808 364746

From: Sandy, Rachel

Sent: 06 June 2018 14:36

To: 'Stuart Gardner'; 'Gorski, Nigel/BHX'

Cc: Rob Holloway; Elizabeth Keen; Garnier, Chrystèle

Subject: RE: Land West of Park Farm

Hi Stuart

Copied to Nigel Gorski who will be able to provide you with the model and spreadsheet.

I can confirm we are satisfied with the trip rate.

Given the current performance and operation of M5 J14, an assessment will be required. On the basis of the development flows at M5 j16, and the current operation of this junction (where mainline queuing does not typically occur during peak times), we would not require a further assessment of this junction.

Kind regards

Rachel

Rachel Sandy

Highways Development Management Team Leader – South West

Highways England | Brunel House | 930 Aztec West | Bristol | BS32 4SR

Tel: +44 (0) 300 4704303 | **Mob:** 07808 364746

From: Stuart Gardner [<mailto:sgardner@peterbrett.com>]

Sent: 04 June 2018 17:40

To: Sandy, Rachel

Cc: Rob Holloway; Elizabeth Keen; Garnier, Chrystèle

Subject: RE: Land West of Park Farm

Hi Rachel

Thank you for your comments. We are working to a very tight timescale, so we are unlikely to be able to meet prior to completion of our TA. Please could you provide us with the VISSIM model and committed development spreadsheet so that we can assess Junction 14 of the M5.

Since the scoping note was submitted we have agreed with South Gloucester Council to use a traffic survey undertaken at the Badger Road/Morton Way junction on Tuesday and Wednesday 26th and 27th September 2017. The site was a cul-de-sac at the time of the survey, with 109 dwellings fully occupied. Of these dwellings, 35% are classed as affordable housing. We have agreed with SGC that these are more up to date and relevant trip rates than the

previous TRICS data. The resultant trip rates and trip generation (based on the current Masterplan for 630 residential units) are summarised below.

Trip rate/gen	AM Peak			PM peak		
	Arrival	Depart	Total	Arrival	Depart	Total
Trip Rate	0.177	0.643	0.820	0.475	0.341	0.816
Trips (630 units)	112	405	517	299	215	514

From these, the development flows at Junctions 14 and 16 are summarised in the following table.

Junction	AM Peak			PM peak		
	Arrival	Depart	Total	Arrival	Depart	Total
Junction 14	11	52	63	23	14	37
Junction 16	5	23	28	23	11	34

Could you confirm that these trip rates are acceptable, and on that basis, if the development flows will be sufficient to require an assessment of the M5 junctions?

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



- t 01189523150
- e sgardner@peterbrett.com
- w peterbrett.com

From: Sandy, Rachel [<mailto:Rachel.Sandy@highwaysengland.co.uk>]
Sent: 31 May 2018 09:23
To: Stuart Gardner <sgardner@peterbrett.com>
Cc: Rob Holloway <rholloway@peterbrett.com>; Elizabeth Keen <ekeen@peterbrett.com>; Garnier, Chrystèle <Chrystele.Garnier@highwaysengland.co.uk>
Subject: RE: Land West of Park Farm

Hi Stuart

Following my summary email last week, please find attached Highways England’s preapplication response to the Land West of Park Farm scoping note.

Please note these comments are based on the preapplication information provided and should not be misconstrued as a formal planning response. A formal recommendation would be made on the basis of information submitted with any future planning application.

Kind regards
 Rachel

Rachel Sandy
Highways Development Management Team Leader – South West
 Highways England | Brunel House | 930 Aztec West | Bristol | BS32 4SR
Tel: +44 (0) 300 4704303 | **Mob:** 07808 364746

From: Stuart Gardner [<mailto:sgardner@peterbrett.com>]
Sent: 04 May 2018 16:11
To: Sandy, Rachel
Cc: Rob Holloway; Elizabeth Keen
Subject: Land West of Park Farm

Rachel

It was good to talk today, although a bit of a struggle with the poor connection...

As discussed, we are looking at the Transport Assessment for the proposed Land West of Park Farm development in Thornbury, and I have attached our Scoping Note which we have submitted to South Gloucestershire Council (SGC). We have since received some comments back from SGC where they have requested that rather than the TRICS data set out in the Note to determine the development trip generation, we use a traffic survey of the Bloor Homes development at Badger Road in Thornbury.

We are currently looking at proposals for the site for approximately 650 dwellings plus 1FE school, with a retail and community hub.

There is likely to be an impact at the M5 Junction 14 and therefore we wish to confirm our scope with Highways England. I understand that HE have been looking at modelling the junction with potential improvement schemes, with consideration of the other developments within Thornbury.

We are happy to attend a meeting with Highways England at a convenient date with yourselves.

I trust that this is sufficient, but if you have any queries please contact me.

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
e sgardner@peterbrett.com
w peterbrett.com

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Registered in England and Wales no 9346363 | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

Consider the environment. Please don't print this e-mail unless you really need to.

Christine Toft

From: Gorski, Nigel/BHX <Nigel.Gorski@jacobs.com>
Sent: 22 August 2018 14:55
To: Stuart Gardner; Sandy, Rachel
Cc: Rob Holloway
Subject: RE: Land West of Park Farm

Stuart,

Thanks. Whilst the trip rates now forecast are considerably lower than those previously accepted, Highway England is able to agree to their use for assessment purposes, subject to the basis of your comments in that these represent a mix of both private and affordable housing types and take account of mode shift targets, which your client aims to realise from the provision of a new bus service through the site and wider travel planning measures. For the new bus service, Highways England will require evidence to show operator agreement regarding its route, frequency, years of funding, etc.

As we have yet to see the details of your 'sustainable transport strategy / Travel Plan', Highways England agrees to the use of the revised trip rates on the basis that the mode shift targets will help to mitigate SRN impact, i.e. measures will off-set some journeys that would otherwise use the SRN. We shall expect detailed information /evidence to support these assumptions, otherwise we may require sensitivity testing of the SRN, to understand the impact of the sustainable transport strategy failing to off-set SRN traffic flow increases.

As you have assumed all other journey purpose trips i.e. residential to education, retail, etc, stay local to Thornbury and the site, we take this as accounting for any/all trip internalisation. The vehicle trip rates now include two-way rates of 0.614 (AM) and 0.591 (PM).

By way of comparison, the trip rates agreed for the neighboring Park Farm development included two-way vehicle trip rates of 0.635 (AM) and 0.576 (PM), and this is a site positioned in a more sustainable location, closer to the centre of Thornbury.

It terms of trip distribution /assignment, Highways England believes that 'journey to work' census data included in your gravity model, better represents the distribution of residential trips to employment sites then the assumptions previously made.

Whilst you assume all residential to work trips have the potential to travel on the SRN, you discount all other journey purposes. For journey purposes such as retail or leisure, these also have the potential for travel on the SRN. That said, Highways England is prepared to accept the results you have presented and now agree to the same trip rates and trip distribution / assignment parameters as you have agreed with SDC. These parameters should now be consistent, whether you are considering traffic impacts on the strategic or local highways network.

Using the gravity model, we agree your results that 47 two-way (AM) and 36 (PM) vehicle trips would travel through M5 J14. There would however be a similar proportion of development trips impacting on M5 J16.

Junction	AM Peak (08:00 – 09:00)			PM Peak (17:00 – 18:00)		
	Arrival	Depart	Total	Arrival	Depart	Total
Junction 14	7	40	47	29	7	36
Junction 16	7	40	47	27	6	33

M5 J14 will require capacity assessment as this non-signal controlled junction (during peak hours) experiences significant congestion and sizable queues and delays recorded on the M5 off-slips. As the West of Park Farm proposals place substantial development trip increases on these sensitive movements, this poses a safety risk to the SRN. Applying the principals of paragraph 9 of Circular 02/2013, development proposals are likely to be

unacceptable, by virtue of a severe impact, if they increase demand for use of a section that is already operating at over-capacity levels, or cannot be safely accommodated, i.e. would increase the frequency of occurrence of road safety issues; or would in itself cause those road safety issues to arise..

M5 J16 is also shown to experience weekday peak hour congestion, with queues frequently extending beyond the off-slips and onto the M5 mainline carriageway. The development proposals are shown to place a sizable amount of traffic on this junction, but with development trips largely concentrated on the Gloucester Road approaches, routing to and from Aztec West and Bristol City Centre beyond, as primary employment locations, the effects on the M5 off-slips will be more limited. The junction is signal controlled with MOVA, but with it already congested, there would be limited opportunity for signal timings to re-optimize in relation to the additional flows predicted. It is therefore believed that any additional vehicles adding to the Gloucester Road approaches, will just add to queues on these arms. The M5 off-slips should remain protected. More so in relation to the revised NPPF, given the scale of proposed development trips predicted to impact on M5 J16 (largely Gloucester Road approaches), Highways England feels there to be no requirement for capacity assessments at this junction.

If you would like to discuss anything further, please do not hesitate to contact me.

Regards

Nigel

Nigel Gorski | Jacobs | Buildings & Infrastructure | Transport Planning | +44 (0) 121 4560664
nigel.gorski@jacobs.com | www.jacobs.com

From: Stuart Gardner <sgardner@peterbrett.com>

Sent: 17 August 2018 14:27

To: 'Gorski, Nigel/BHX' <Nigel.Gorski@jacobs.com>; Sandy, Rachel <Rachel.Sandy@highwaysengland.co.uk>

Cc: Rob Holloway <rholloway@peterbrett.com>

Subject: [EXTERNAL] RE: Land West of Park Farm

Nigel

As discussed, this is the journey splits by use that we have used for our trip generation. This has been derived from the TEMPro zone South Gloucestershire 001 (E02003090). For clarity, I have also included the trip rates we are using based on observed flows from a new residential development close to our site within Thornbury, as required by SGC.

	IN	OUT	2-way
AM (0745-0845)	0.091	0.523	0.614
PM (1700-1800)	0.477	0.114	0.591

TEMPro Residential Journey Purpose Splits 2028 South Gloucestershire 001 (E02003090)

2028	AM	PM
Employment	66.9%	53.0%
Education	12.7%	5.8%
'Other' (Retail / Leisure / Personal Business)	20.4%	41.2%

Total	100.0%	100.0%
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Hopefully this is sufficient, but any further info please let me know.

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
m 07764515010
e sgardner@peterbrett.com
w peterbrett.com

From: Stuart Gardner

Sent: 16 August 2018 16:56

To: 'Gorski, Nigel/BHX' <Nigel.Gorski@jacobs.com>; 'Sandy, Rachel' <Rachel.Sandy@highwaysengland.co.uk>

Cc: Rob Holloway <rholloway@peterbrett.com>

Subject: RE: Land West of Park Farm

Nigel

Further to our conversation yesterday, I have amended the gravity model to show the employment development flows at the destinations. The routes are shown on the attached marked up plan for clarity.

I trust that this is sufficient, but if you have any queries please contact me.

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
m 07764515010
e sgardner@peterbrett.com
w peterbrett.com

From: Stuart Gardner

Sent: 13 August 2018 15:24

To: 'Gorski, Nigel/BHX' <Nigel.Gorski@jacobs.com>

Cc: Rob Holloway <rholloway@peterbrett.com>

Subject: Land West of Park Farm

Nigel

We previously provided our methodology within our Scoping Note which set out that we would use the observed turning flows at each junction from our traffic surveys of junctions around Thornbury, undertaken at the end of 2017, and an additional survey in 2018, attached as Figures 7.1 and 7.2. The development flows were based on a junction survey of a residential development within Thornbury, provided by SGC as part of their scoping response. I have also attached our trip distribution (Figures 7.23 & 7.24) and development highway network flows based on these surveys for both the AM and PM peaks (Figs 7.25 & 7.26).

We consider that this is an appropriate method for the trip distribution, as it is based on recent observed traffic flows which incorporate the most completed developments within Thornbury.

SGC, however, as part of their scoping response requested that we undertake a gravity model exercise based on the 2011 census data, factored in for the constructed and committed developments since the census. Rather than creating a Saturn model for Thornbury which we consider as excessive for our side development, we set up a simple gravity model based on employment areas, journey times and cost. Unsurprisingly this has a much higher distribution of trips towards Bristol than the observed turning movements methodology proposed. We would therefore proposing to only apply the employment trips to this distribution, as it is not going to be appropriate to employment or leisure based trips (eg, most school trips would be local, rather than to Gloucester or Bristol). The education and leisure trips would be within Thornbury, and not on the M5 junctions.

The attached distribution based on turning movements was applied to all development trips, as it would include local school and leisure use, and we therefore feel that this is the more appropriate method. We have, however, also provided the trips based on the gravity model, as this was requested by SGC as part of their scoping.

We anticipate that the development trips at the M5 junctions will be as shown on the attached AM and PM peak development trip figures and summarised below. It should be noted that with Junction 14 some of these trips may not all use this Junction, as they may be dispersed prior to the M5, but have been included for robustness.

Junction	AM Peak			PM peak		
	Arrival	Depart	Total	Arrival	Depart	Total
Junction 14	11	51	62	23	14	37
Junction 16	5	23	28	23	11	34

I trust that this is sufficient, but any queries please contact me.

Kind regards,

Stuart Gardner

Principal Transport Planner

For and on behalf of Peter Brett Associates LLP - [Reading](#)



t 01189523150
m 07764515010
e sgardner@peterbrett.com
w peterbrett.com

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Savills
Embassy House
Queens Avenue
Bristol
BS8 1SB

Please ask for: Customer Service Centre
Tel: 01454 868004
Our ref: PT18/012/SCO
(Please quote at all times)
Your ref:
Date: 30th May 2018

**TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (ENGLAND AND WALES) REGULATIONS 2017
SCOPING OPINION**

Dear
Ms Tozer

LOCATION: West Of Park Farm Thornbury South Gloucestershire
DESCRIPTION: Scoping opinion for up to 750 dwellings (Use Class C3), local centre (Use Class A1-A5, D1, D2), open space including children's play provision, landscaping, the provision of two new accesses onto Oldbury Lane and necessary enabling infrastructure.
REFERENCE NO: PT18/012/SCO

A request for a scoping opinion under Town & Country Planning (Environmental Impacts Assessment) (England and Wales) Regulations 2017 has been received for residential development for up to 750 units at Land West of Park Farm, Thornbury.

I hereby give notice of the authority's adoption of the scoping opinion incorporating the following documents: EIA Scoping Report (April 2008) produced by Savills was received by the Council on 22nd March 2018.

In providing this scoping under the above regulations, the Local Planning Authority has considered the nature of the development, the breadth of the Environmental Statement (ES), the range of key issues and the extent to which each environmental topic area needs to be investigated. In addition it has started to define the areas of physical survey required.

For the avoidance of doubt, if when the LPA is dealing with the forthcoming application to which this ES relates, it is of the opinion that the ES should contain additional information, this Scoping Opinion shall not preclude the Council from subsequently requiring the applicant to submit 'further information' in accordance the 2017 Regulations (or as amended).

Strategic Planning, South Gloucestershire Council, Department For Environment And Community Services
PO Box 1954, Bristol, BS37 0DD

Telephone: 01454 868004 Email: planningapplications@southglos.gov.uk

General:

The proposed development falls within Schedule 2 Section 10(b) of the EIA Regulations: Urban development project of more than 15 dwellings and with a site larger than 5ha, is a development that is likely to have significant effects upon the environment by reason of its nature, size or location.

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2017, sets out the necessary information to assess impacts on the natural environment to be included in an ES.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

As part of the submission of the ES, the Council requires a summary of environmental commitments at the front of the ES so that it is very clear what mitigation is being proposed. This will be very helpful when assessing the application and drawing up conditions. This should comprise a table, with rows relating to the ES Chapter headings and columns headed as follows:

1. Identified Potential Effect
2. Proposed Control/Mitigation Measure
3. Monitoring Requirements if required
4. Means of Implementation

Scope:

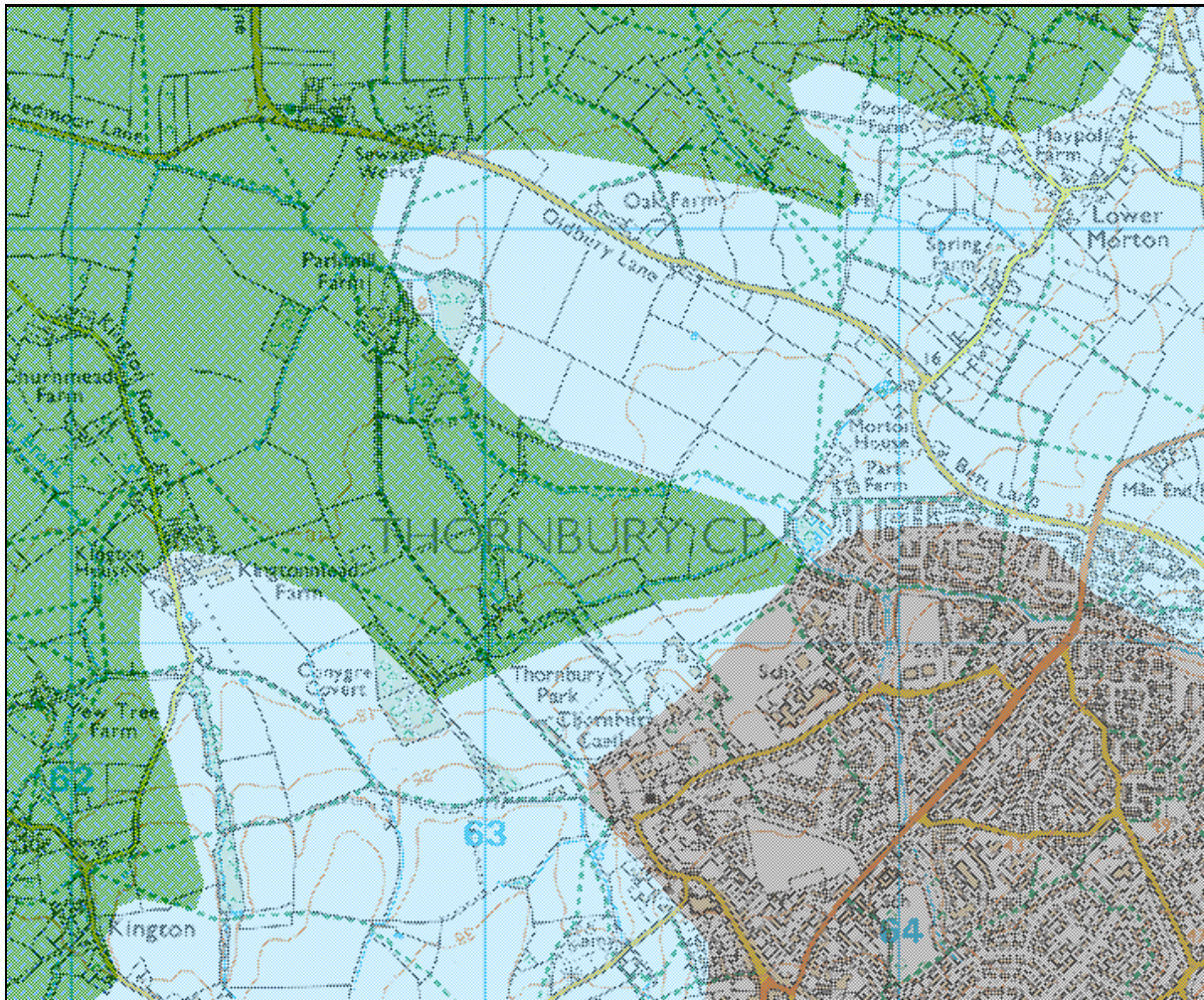
The scoping report proposes to scope out the following matters:

- Ground conditions;
- Waste;
- Health Impact;
- Climate Change; and
- Vulnerability to Major Accidents or Disasters.

It is accepted that the above topic areas can be scoped out.

Based on the information provided, it is considered that Soil and Agricultural Land Quality should be scoped into the ES. The Council's Landscape Officer has provided the following summary of the issues: The land is classified under the DEFRA / NE Agricultural Land Classification, as Grade 2 and part Grade 3 land, classed under the NPPF as 'best and most versatile land'. According to the EIA Scoping Report (April 2018) submitted ALC has been 'scoped out' of the ES, but a detailed ALC report will be submitted with the forthcoming planning application.

Our MapInfo ALC layer (Map 1 - extract below) shows that the majority of the site lies within Grade 2 land. Cumulative effects are considered at 3.5.19 of the scoping report and it states that the loss of agricultural land is *'not considered likely to have a significant environmental effect, given the scale of retained agricultural land, including BMV within the locality'*. Notwithstanding this, it is considered that the cumulative effect of the loss of BMV agricultural land around Thornbury as a whole, due to proposed new development, should be thoroughly considered as part of the site assessment and within the ES.



Map 1: ALC Extract

Natural England have also provided guidance that:

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

In terms of other developments and cumulative effects, the sites listed are considered to be acceptable, however it is suggested that there are additional sites that should be considered (listed in Section 10 below). It is noted that cumulative effects is not proposed as a standalone chapter within the ES; therefore, each chapter of the ES will need to address cumulative effects individually.

Officer comments on the scope of the EIA can be found below:

1. Landscape and Visual Impact

The Council's Landscape Officer has commented as follows:

The site lies outside the existing urban area and outside the Greenbelt and is covered by retained Policy L4 (Forest of Avon) of the South Glos. Local Plan and Policies CS1, CS2 and CS32; Thornbury, of the Core Strategy, adopted December 2013. The site is also covered by policies PSP1, PSP2 and PSP3 of our Policies Sites & Places Plan and our Landscape Character Assessment (Revised & Adopted November 2014).

The scoping report submitted (Savills EIA Scoping Report - April 2018), provides details of the project site and scope of work to be carried out as part of the ES to support a forthcoming planning application. Landscape is to be scoped into the ES and Chapter 13 of the report identifies the principle areas of work which need to be addressed in the ES to address the landscape impact. A landscape and visual impact assessment will be included, to be carried out in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013) produced by the Landscape Institute and the Institute for Environmental Management and Assessment, which constitutes the recognised methodology. The LVIA

will be used to guide the assessment of the site and surrounding area, and will cover baseline conditions, opportunities and constraints, together with the potential effects of future development proposals on the setting and visual amenity of the area, in order to inform the development layout.

The site comprises approximately 35ha of agricultural land, to the south of Oldbury Lane, Thornbury and to the immediate west of the Park farm development currently being built out. Pickedmoor Lane Rhine flows east-west through the southern portion of the site, with little vegetation associated with the watercourse. The fields are bounded by mature hedgerows with occasional hedgerow trees and there are small copses and areas of woodland to the southern boundary. There are significant views southwards through the site to St. Mary's Church spire and woodland to the north of Thornbury Castle. The attenuation pond associated with the Park farm development lies adjacent to the eastern site boundary.

In addition to the viewpoints shown at Fig.13.4 to 13.14, representative viewpoints have been agreed along Oldbury Lane and within the NW edge of the Park Farm development, looking into the site. These additional viewpoints were confirmed in my email to The Richards Partnership on 1 May and confirmed at 13.3.2018 of the scoping report.

Conclusion

It is considered that the proposed scope of work outlined in the scoping report to be carried out regarding the landscape and visual impact within the proposed ES, is acceptable. The agreed viewpoints are considered acceptable and representative viewpoints for the purposes of the LVIA assessment work.

2. Air Quality

The Council's Environmental Health Officer has commented as follows:

The EIA Scoping Report submitted by Savills, dated April 2018, states that potential for air quality and odour impacts will be considered within a specific chapter of the ES. The scoping report appears to address the relevant potential air quality and odour issues. However, the assessment of operational impacts should also include sensitivity testing in light of the uncertainty around emission factors for nitrogen dioxide to provide a worst-case assessment. If the proposal includes any centralised energy facility or other central combustion process, such as CHP, the impacts of this should also be considered.

As regards the mitigation envisaged (Section 11.5), the following good practice principles identified in the 'Land-Use Planning & Development Control: Planning for Air Quality' guidance produced by Environmental Protection UK (EPUK) / Institute of Air Quality Management (IAQM) (January 2017) should be applied to all development to reduce emissions and contribute to better air quality management:

- The provision of at least 1 Electric Vehicle (EV) "rapid charge" point per 10 residential dwellings and/or 1000m² of commercial floor space. Where on-site parking is provided for residential dwellings, EV charging points for each parking space should be made.
- All gas fired boilers to meet a minimum standard of <40mgNO_x/kWh.

It is recommended that the Environmental Protection Team is contacted to agree the detailed methodology, including a suitable approach to sensitivity testing and to obtain the latest available data.

3. Noise and Vibration

The Council's Environmental Health Officer has commented as follows:

The EIA Scoping Report dated April 2018 sets out technical details of the noise and vibration assessment to be reported in the ES in Chapter 10. The Chapter includes details of the Assessment Criteria and Methodology; Baseline Environment; Likely Impacts & Effects; and Mitigation Envisaged which are welcomed and agreed.

4. Ecology and Nature Conservation

The site comprises an area of intensive agricultural land (predominantly improved permanent pasture) immediately south of Oldbury Lane west of the Park Farm residential development on the north-western edge of Thornbury.

Natural England (NE) outlined in their response that case law and guidance has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission and have offered no further detailed feedback on the ES. NE

have requested that the Council draw to your attention some of the key points of advice, presented in the annex to its letter dated 17th May 2018 (Ref 246189), a copy of NE's letter is attached.

The Council's Ecologist has commented as follows:

Ecological/Geological Records

The application needs to include the results of a search of all ecological and geological records within 2km of the application site by the Bristol Regional Environmental Records Centre (BRERC).

This should include:

- Sites of Special Scientific Interest (SSSI);
- Local wildlife (Sites of Nature Conservation Interest (SNCI) and Regionally Important Geological Sites (RIGS));
- Protected species of flora or fauna;
- County Notable Species;
- Species and habitats listed under UK or Local Biodiversity Action Plans or as being of Principal Importance for Biological Diversity under Section 41 of the NERC Act

Severn Estuary European Site (SPA/Ramsar)

The site lies some 2km from the shoreline of the Severn Estuary which is notified as a Site of Special Scientific Interest (SSSI) and protected under the Wildlife & Countryside Act 1981 (as amended). It is also designated as a Special Protection Area (SPA) under EC Directive 79/409 on the Conservation of Wild Birds ('the Birds Directive') and is a Ramsar site under the Ramsar Convention on the Conservation of Wetlands of Importance.

The Estuary is also a Special Area of Conservation (SAC) under European Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('the Habitats Directive 1992'), implemented in Britain by the Conservation (Natural Habitats & c) Regulations 2017 ('the Habitat Regulations'), otherwise known as European or Natura 2000 (N2K) Sites.

Whilst the application site lies outside the N2K site boundary, the same legal protection applies to the qualifying species/assemblages outside the boundary of SPA/Ramsar sites – for example, when these birds use wet fields inland at high tide ('high tide roosts'). There is also the potential for less direct impacts upon the European Site through an increase in recreational use which might disturb and displace waterfowl using the foreshore.

Regulation 61 of the Habitats Regulations 2017 states that where a 'plan or project' – e.g. a planning application – is likely to have a significant effect on the European Features of Interest of a SPA, SAC or Ramsar, and is not 'directly connected with or necessary to the management of the site', it should be subject to an 'appropriate assessment' (Habitat Regulations Assessment or HRA). This is to assess the impact of development on those features of interest for which the site has been designated (certain species of waders or wildfowl in the case of the SPA). Any planning application likely to significantly affect a European Site would therefore need to supply sufficient information at a suitable level of detail to enable an HRA to be carried out by the 'competent authority' - in this case, the local planning authority.

Given this, any planning application will need to satisfactorily demonstrate that the proposed scheme will not adversely affect the SPA/Ramsar and would not therefore need to be subject to HRA.

Severn Estuary SSSI

The application also needs to satisfactorily demonstrate that the proposed development would not adversely affect the Severn Estuary SSSI by impacting upon the species of wader/wildfowl for which it is notified.

Parkmill Covert SNCI

The site itself is not covered by any statutory or non-statutory nature conservation designations. However, Parkmill Covert lies immediately adjacent to the western boundary of the application site and is designated as a Site of Nature Conservation Interest (SNCI) for its ancient broadleaved woodland, a finite and fragile form of semi-natural habitat. Locating volume residential dwellings immediately next to a block of ancient woodland has significant implications for its ecology, potentially leading to its degradation through use by dog-walkers and – particularly – local children using it for recreational

activities such as mountain-biking. Any planning application would therefore need to satisfactorily demonstrate how it would safeguard the woodland SNCI from trespass and harm.

Semi-Natural Habitat

Any planning application will need to include an extended Phase 1 habitat survey including an assessment of any hedges on site to identify whether any qualify as species-rich (a 'habitat of principal importance for biological diversity' or Priority Habitat nationally under Section 41 of the Natural Environment & Rural Communities Act 2006) or as 'important' under the Hedgerow Regulations 1997.

Great Crest Newts

There are records of great crested newts to the east of the application site. Any pond/water feature within 500m should be subject to a Habitat Suitability Index (HSI) for use by great crested newt and surveyed for the species if deemed suitable. Great crested newts are protected under the Wildlife & Countryside Act 1981 (as amended), the CROW Act 2000 and the Habitats Regulations 2017, which implements European Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora ('The Habitats Directive 1992'). As a European Protected Species (EPS), a licence under Regulations 53/56 of the Habitat Regulations is required for development to be lawful. Past judicial reviews have directed that, to fully engage with the Habitat Regulations, local authorities should subject planning applications to the same 'tests' under Regulations 53/56 as European Protected Species licences. Satisfying these 'tests' necessitates providing the detail of a mitigation strategy prior to determining the application.

Water Vole/Otter/White-Clawed Crayfish

The application needs to include an assessment/survey of any ditches/watercourses for use by water vole, otter and white-clawed crayfish. Water vole and otter are both protected under the Wildlife & Countryside Act 1981 (as amended) and the Countryside & Rights of Way (CROW) Act 2000. Additionally, otter is a protected under the Habitats Regulations 2017 (implementing European Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora ('The Habitats Directive 1992')). As a European Protected Species (EPS), a licence under Regulations 53/56 of the Habitat Regulations is required for development to be lawful (see above).

Bats

Any trees or buildings on site should be surveyed for potential use by roosting bats. The application also needs to include a foraging/commuting survey of the site for bat activity, to enable the most important areas/routes to be incorporated and safeguarded within the scheme. All bats are protected under the Wildlife & Countryside Act 1981 (as amended), the CROW Act 2000 and the Habitats Regulations 2017, which implements European Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora ('The Habitats Directive 1992'). As European Protected Species (EPS), a licence under Regulations 53/56 of the Habitat Regulations is required for development to be lawful (see above).

Badgers

Any application will need to include a survey of the site for use by badgers to include details of any works subject to licence under the Protection of Badgers Act 1992.

Hedgehog

Any application needs to include an assessment of the semi-natural habitat across the site for potential use by hedgehog. Hedgehog is a Priority Species nationally and listed on the South Gloucestershire Biodiversity Action Plan and any suitable habitat to be cleared across the site should be subject to a mitigation strategy to avoid killing or injuring animals.

Slowworms

Any application needs to include a survey of any suitable habitat on site for reptiles (slowworm, grass snake). Slowworm and grass snake are protected against intentional or reckless killing or injury under the Wildlife & Countryside Act 1981 (as amended) and is included on the South Gloucestershire Biodiversity Action Plan as a species for which the Council will require developers to take specific measures to conserve. If either species is present, a mitigation strategy will be required to conserve the animals and to avoid development resulting in offences in law.

Birds

Any application needs to include a survey for nesting birds noting in particular any

Species listed on the RSPB Red or Orange Lists of Species of Conservation Concern or which are Priority Species nationally under Section 41 of the Natural Environment & Rural Communities (NERC) Act 2006.

Conclusions

Any application and ES needs to include sufficient information to demonstrate that development would not undermine the conservation objectives of the Severn Estuary European Site and would not therefore be subject to Habitat Regulations Assessment (HRA) under Regulation 61 of the Habitat Regulations 2017.

The application also needs to include the results of a series of ecological surveys for a range of protected or notable fauna as specified above.

It is recommended that any future planning application satisfactorily addresses the above issues.

5. Heritage

The Council's Heritage and Conservation Officer has commented as follows:

The application site comprises of 35.73 hectares of land to north-west of Thornbury. The site's northern boundary would be extend to the north along Oldbury Lane its eastern boundary would largely adjoin the western boundary of the recent Park Farm development. To the south lies the a cluster of listed buildings which includes the Grade I listed Thornbury Castle and a number of associated listed structures and the Grade II listed Thornbury Shieling School, which are approximately and respectively 425m and 260m to the south of the site. 60m to the south of the site also lies the Thornbury Conservation Area boundary. Thornbury Castle is also a Grade II listed Registered Park or Garden.

The proposals would have a direct impact on the setting of all these designated heritage assets which has already had their setting compromised by recent developments. Any further loss of setting and thus significance will therefore not be permitted.

To inform the consideration of this matter, I would advise therefore that the ES should consider the direct and cumulative impact of the development on the setting of the nearby listed buildings and impact of the development in views to and from the Thornbury Conservation Area, including St Mary's Church, as any development of an inappropriate scale, height, massing, form, layout and design could potentially have a substantial, harmful impact on its setting and significance. In particular this should also include an assessment of the further urbanisation will have on the wider character and setting of the conservation area with specific reference to the impact on the remnants of the historic deer park landscape to the north of Thornbury Castle.

The ES must consider the heritage asset policies from the adopted Core Strategy and those in the adopted South Gloucestershire Local Plan: Policies, Sites and Plan Development Plan, along with how any proposal would accord with the national policy framework and legislation. In light of recent case law, how the development addresses the requirements of sections 66(1) and 72(2) of the Planning (Listed Buildings and Conservation Areas) Act 1990 will also require demonstration.

The heritage assessment should be produced by a specialist heritage consultant and should be based on the framework as set out in Historic England's "Setting of Heritage Assets" (GPA 3 Second Edition).

It should also dovetail with a separate Landscape and Visual Impact Assessment which needs to include illustrative montages of the proposed development (including all associated infrastructure) from multiple viewpoints around the site to demonstrate the potential effect of development on the setting of the identified heritage assets. Further discussions on the heritage assets or search areas may be required, but as per GPA Note 3, the ES will need to consider approaches such as identifying and agreeing to 'Zones of Visual Influence' (ZVI) or 'Zones of Theoretical Influence' (ZTV).

6. Archaeology

Comments of the Council's Archaeology Officer are as follows:

I have reviewed the scoping report accompanying the scoping opinion request and concur with the proposals therein. I am aware that evaluation has taken place and the results of these will need to be incorporated into the ES chapter.

7. Socio-Economic

The ES will need to consider the socio-economic issues relating to the proposed development, including likely significant effects on social and economic conditions. A baseline desktop assessment will be required of the population density and demographic profile of the area, economy, employment and demand for local services, education and community facilities, a review of built community and cultural facilities, play areas and public open spaces at ward level. A cumulative assessment of other nearby developments will also be required (a list of sites is included in Section 10 below).

8. Transport

Comments of the Highways Officer are as follows:

Sustainable Transport Assessment

Please provide a PERS type quality audit of the walking and cycling routes from the development to all of the key facilities and services set out in SGC PSP Policy PSP11. This should include a comparison of the respective route distances to the key facilities from nearest and furthest parts of the site to the distances set out in the policy.

Committed Developments to include:

- Park Farm PT11/1442/O
- Thornbury Fields PT12/2395/O
- Post Farm PT15/2917/O
- Land West of Gloucester Road PT16/4774/O
- Cleve Park PT16/35650/O

Committed highway infrastructure and bus service support associated with these developments can be found on the Council's website. This includes crossing facilities on Butt Lane, improvements to the Butt Lane / Gloucester Road / Morton Way junction, bus services along Butt Lane and Morton Way, contributions towards junction improvements on the A38 at Grovesend Road, Thornbury Road and Church Road.

The following Development is subject to an appeal and will need to be taken into consideration if the appeal is allowed prior to this planning application being determined.

- Land South of Gloucester Road PT17/2006/O

To ensure background growth is not double counted the committed development numbers can be subtracted from the TEMpro predicted housing growth between 2018 and 2028 for the north Thornbury area. I will need to verify the TEMpro rates in the TA Scope once I've obtained the latest version of the software. Committed development trip rates should be taken from the Badger Road survey information.

Traffic Surveys

The junctions surveyed have previously been agreed with this office. These should provide sufficient base data however further survey information cannot be ruled out until the vehicle trip rates, distribution and assignment have been agreed.

It should be confirmed where the speed survey were carried out on Oldbury Lane to ensure that they are representative of the approach speeds at the extent of the visibility splays.

Development Proposals

Any bus route connecting through to Park Farm should be 6.5m wide.

It should be demonstrated how the comprehensive sustainable transport strategy accords with Development Plan Policies including PSP Policies PSP11, PSP16 and Core Strategy Policies CS5, CS6, CS7, CS8 and CS32. Access arrangements for the site will need to be subject to a stage 1 Road Safety Audit prior to the Application being determined.

The procedures for this are set out in the Council's Road Safety Audit procedure dated September 2015: <https://www.southglos.gov.uk/documents/2-Road-Safety-Audit-Procedure-February2016.pdf>
The Council offers a road safety audit service and should the Developer wish to consider using this service the Council's road Safety Manager Robert.Joyce@southglos.gov.uk

Development Travel Demand

Vehicle trip rates should be established from local surveys of the most recent developments north of Thornbury. Results from surveys carried out in September 2017 on Badger Road at the Thornbury Fields Development are shown below. The site was a cul de sac at the time with 109 dwellings all occupied, 35% of which are affordable housing.

Location	AM 08:00 – 09:00			PM 17:00 – 18:00		
	Arr	Dep	Total	Arr	Dep	Total
Badger Road	0.188	0.683	0.871	0.505	0.362	0.876

Vehicle trip rates will need to be factored to account for:

The number of houses predicted to be built in Thornbury up to the assessment year and the number of jobs created in Thornbury over the same period.

The level of public transport proposed to serve the development.

It will need to be demonstrated whether the NOMIS mode split table from 2011 is relevant to this site in 2018 having regard to its location and the number of houses and jobs predicted for Thornbury between 2018 and 2028.

Vehicle trip distribution will need to be derived from the 2011 travel to work census data for the Thornbury North super output area factored with the predicted number of dwellings to be built around Thornbury over the next 10 years and the number of jobs created in Thornbury over the same period. Trip assignment should be based on a gravity model factored with any constraints such as congested junctions. This assessment should then be compared to the surveyed turning counts which would be broadly similar near the site reducing in similarity as you get further away.

Travel Plan

The SGC approach to Residential Travel Plans is that SGC prefer to manage all residential travel plans. The current cost associated with this amounts to £375 per dwelling. Alternatively Developers can implement and manage their own Travel Plans. In the latter case SGC would require an annual monitoring fee for the lifetime of the travel plan. This is currently £1,000 per year.

Public Rights of Way

In Chapter 9: Traffic and Transport (9.5.3) improvements to the local public transport network, walking and cycling facilities are discussed. We would expect these improvements to include provision for horse riders, especially as there is an existing MUR in the adjacent site. I would like to see a connection made and if possible a means of getting horses off Oldbury Lane for a stretch which is just going to get busier. We would refer to PSP10 and improvements to be made to the existing footpaths and getting OTH18 back onto its proper alignment at the north end, unless any diversions are planned.

9. Water Environment

Comments of the Lead Local Flood authority are as follows:

The principles outlined in the Environmental Impact Assessment Scoping Report (April 2018) for the Chapter on Water Environment (Hydrology and Flood Risk) are acceptable. As indicated in the report these issues should be scoped into the Environmental Statement.

It should be noted that additional consideration needs to be given to increased volume of water outfalling to the Pickedmoor Brook and the impact on downstream communities (Oldbury on Severn) when the system is Tide Locked. Oldbury on Severn experienced flooding in March 2016 because of the volume of water coming down the Pickedmoor Brook, Rainfall and the system being Tide Locked.

Comments of the Environment Agency are as below:

Flood Risk

The site is located in Flood Zone 1, 2 and 3 as identified in the Strategic Flood Risk Assessment Level 2 and the EIA scoping opinion.

A Flood Risk Assessment (FRA) will need to be submitted as part of the planning application or ES for this site. The strategy for the FRA should be to use a sequential approach for locating

development and follow the National Planning Policy Framework guidelines. To that effect, we would recommend that dwellings are located solely in Flood Zone 1. Flood Zone 2 can be used for dwellings, however, the use of this flood zone would be preferable to be used for “less vulnerable” uses such as shops. Flood Zone 3, especially 3b, should only be used for “water compatible” uses only.

If it is planned to locate houses close to Flood Zone 3, then a river model would need to be undertaken for the watercourse, to help assess the risk to the development and determine finished floor levels and floodplain compensation.

Water Framework Directive

The general approach being proposed in the EIA complies with best practice and appears to be fit-for-purpose.

From the information presented there does not appear to be any intention to realign or modify the channel form of the Pickedmoor Brook and Chapter 8 (Water Environment) therefore considers the impact on this channel in terms of hydrology and water quality only. However, there may be a risk that as the project develops plans may be put forward to modify the channel form itself - either for the purposes of flood risk mitigation or optimising the development potential of the site for example. Accordingly the EIA should reflect this potential and include an assessment of channel morphology as well as ecological status.

While the EU Water Framework Directive is referred to in Chapter 8 as relevant legislation, it is important that the EIA is clear that it needs to meet the specific needs of a WFD compliance assessment. This can be done within the EIA and Environment Statement but it must address the impacts on all relevant WFD Quality Elements (including Hydromorphology) in all impacted water bodies and conclude with a 'statement of compliance' that considers the residual impacts at the water body scale on the water body objectives - following all appropriate mitigation.

Environment Management

A scheme for prevention of pollution during the construction phase should be included. The scheme should include details of the following:

1. Site security.
2. Fuel oil storage, bunding, delivery and use.
3. How both minor and major spillage will be dealt with.
4. Containment of silt/soil contaminated run-off.
5. Disposal of contaminated drainage, including water pumped from excavations.
6. Site induction for workforce highlighting pollution prevention and awareness.

Invitation for tenders for sub-contracted works must include a requirement for details of how the above will be implemented.

Measures should be taken to prevent the runoff of any contaminated drainage during the construction phase.

There shall be no discharge of foul or contaminated drainage from the site into either groundwater or any surface waters, whether direct to watercourses, ponds or lakes, or via soakaways/ditches.

10. Cumulative and In-combination Effects

With regard to cumulative and in combination effects, the Council is aware of the following developments which should be included for consideration:

- Land at Park Farm, Thornbury (PT11/1442/O, PT13/0919/RM & PT15/5528/RM);
- Land at Morton Way North, Thornbury (PT12/2395/O, PT14/2398/RVC, PT15/5060/RM and PT17/3446/F);
- 3 Alexandra Way, Thornbury (PT13/0870/O);
- Land West of Pound Mill, Lower Morton, Thornbury (PT13/3101/F);
- Midland Way, Thornbury (PT14/4961/F);

- Land at Post Farm, Thornbury (PT15/2917/O) and (PT18/0463/RM, PT18/0902/F and PT18/0913/O - Applications Pending Consideration);
- Stokefield House, Thornbury (PT16/0982/F);
- Cleve Park, Thornbury (PT16/3565/O);
- Land West of Gloucester Road, Thornbury (PT16/4774/O) - Application under consideration;
- Buckover Garden Village – Proposed in the Joint Spatial Plan.

11. Other Issues

Nuclear Power

Officers wish to bring to the attention of the applicant the presence of the existing Magnox power station and Government nominated nuclear new build power station site about 3.5km from the site, and the presence of the power station access road immediately adjacent to the site. The plans and programme for both the decommissioning and the construction of a nuclear new build power station (NNB) are unknown at this time, as are the implications for traffic and HGV use of the adjacent power station access road. The site falls within the Health and Safety Executive (HSE) consultation zone for a future Nuclear New Build. Officers suggest that the applicants contact Magnox / the Nuclear Decommissioning Agency and Horizon Nuclear Power Ltd for further information on plans for the power stations. Information on the consultation zones are available on the HSE/Office for Nuclear Regulation websites.

A copy of this opinion, together with the relevant documents, will be made available for public inspection for a period of two years at the relevant Council Offices.

If a planning application is subsequently made for development to which the scoping opinion relates, the opinion and related documents will be transferred to Part 1 of the register with the application.

Yours sincerely

Catherine Loveday
Senior Planning Officer

Enclosures: Natural England Letter dated 17th May 2018 (Ref 246189)

