

# Technical Note

**Project:** Mitton (SWDPR 54)

**Subject:** Impact within Cotswold National Landscape

<b>Client:</b>	Barratt David Wilson South West / MacMic Group		
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## I Introduction

1.1.1 In February 2025, PJA prepared inputs into the Hearing Statement (WS9/34) which responded to the Inspector's Questions, in particular, Question 162:

*What is the evidence that the proposed development would be designed to avoid or minimise adverse impacts with particular regard to traffic, on the Cotswolds National Landscape (CNL)?*

1.1.2 At the Examination Hearing on 11<sup>th</sup> March an acceptable threshold of a 10% impact on traffic flows (24 hour annual average daily traffic - AADT) associated with the proposed development of Mitton (1,000 dwellings) was discussed with the Cotswolds National Landscape Board Representative. It was agreed that changes in traffic flows, from the proposed development, below this threshold would not have an unacceptable impact on the CNL. This is consistent with the approach taken within the submitted Environmental Statement<sup>1</sup> for Mitton A and B planning applications.

1.1.3 In response to the queries raised at the Examination Hearing on 11<sup>th</sup> March, further information is presented in this regard. This information has been developed as part of the planning application to consider the matter in further detail and was not available at the time of the 11<sup>th</sup> March Examination Hearing:

- Data collection undertaken in April 2025, in the form of Automatic Traffic Counts, to provide further background traffic flow data;

<sup>1</sup> Institute of Environmental Management and Assessment (IEMA) Guidelines: Environmental Assessment of Traffic and Movement. Rule 2 – further assessment of highway links which are of a high sensitivity are required where traffic flows have increased by 10% or more.

- Presentation of the assignment of development traffic through the CNL using the outputs from the GC3M Strategic Traffic Model (owned and maintained by Gloucestershire County Council (GCC) and their consultants). This differs from the information presented in WS9/34 which was a manual assignment exercise due to the model information not being available at that time. Albeit, this did consider route choice and the findings are generally comparable to those from the GC3M now presented; and
- Consideration of the potential re-assignment of background traffic through the CNL as a result of the loading of development traffic on the wider highway network, using the outputs from the GC3M Strategic Traffic Model.

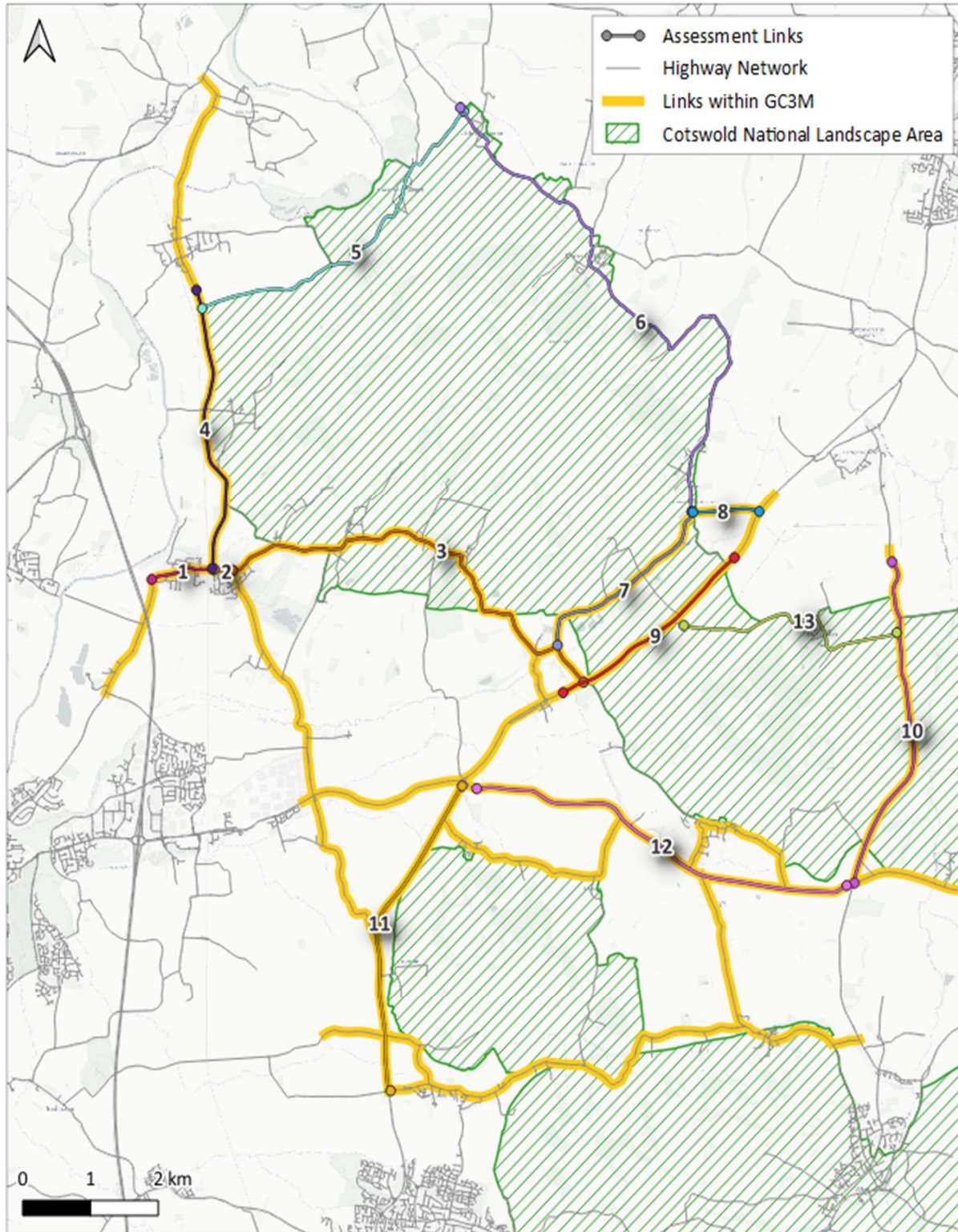
## 2 GC3M Strategic Traffic Model

- 2.1.1 Modelling has been undertaken by AtkinsRéalis to support the planning applications for Mitton A and B using the GC3M strategic traffic model, which has AM peak and PM peak hour modelled scenarios. This is an area-wide traffic model covering the Gloucestershire County area and southern areas of Worcestershire.
- 2.1.2 Through detailed discussions on the scope of the Transport Assessment for the submitted planning applications, the use of this model has been agreed with GCC, Worcestershire County Council (WCC) and National Highways (NH). It is pertinent to note that WCC has agreed that this model provides suitable coverage of the area around Bredon and adjacent to the CNL in South Worcestershire, for the purpose of the detailed assessment of the planning applications.
- 2.1.3 The GC3M model exercise has used trip rates and trip distribution parameters agreed as part of the planning applications with GCC, WCC and NH.
- 2.1.4 The impact of the Mitton development within the CNL area can be determined using the outputs from the GC3M strategic traffic model:
- 2031 Reference Case;
  - 2031 Reference Case + Mitton A & B (1,000 dwellings); and
  - Development only (within the 2031 Reference Case + Mitton A & B).
- 2.1.5 These scenarios are used to determine the following:
- 1) How development traffic routes on highway links through and adjacent to the CNL, taking account of future year congestion.

- 2) The effect development traffic has on the displacement of background traffic (i.e. potential for background reassignment to reflect a change in conditions on the highway network resulting from development traffic).

2.1.6 Figure 1 shows how the links within the study area align with the links coded within the GC3M. This majority of links within the study area are coded into the GC3M, with the exception of Links 5, 6 and 13. These links are relatively minor and considered likely to carry only limited vehicle trips associated with the proposed development.

Figure 1: Study Area



### 3 Impact of Development Traffic

3.1.1 The following methodology has been used to calculate the percentage impact of the proposed development at Mitton:

- Calculate background 24hr AADT on each link using traffic count data, and growth to 2027<sup>2</sup> Future Year using factors from TEMPro; and
- Extract assignment of development only traffic from GC3M (2031 Reference +Mitton A & B) for the AM and PM peak periods and growth to 24hr AADT.

3.1.2 The full calculations for this assessment are contained in **Appendix A**. A summary of the results of this assessment is provided in Table 3.1.

**Table 3.1: Daily traffic flows (24hr AADT)**

Link	Data Source for Background Traffic	Development Traffic (GC3M)	2027 Opening Year Reference Case (without development)	2027 Opening Year Do Something (with development)	% impact
1 – High Street	ATC (2025)	597	7,917	8,514	7.5%
2 – Kemerton Road (west)	ATC (2025)	248	5,865	6,113	4.2%
3 – Kemerton Road (east)	ATC (2025)	16	2,752	2,768	0.6%
4 – B4080 Moreton Lane	ATC (2025)	205	4,073	4,277	5.0%
5 – Hollands Road	DfT (2023)	Link not coded	1,017	-	-
6 – Pershore Road	DfT (2018)	Link not coded	590	-	-
7 – Ashton Road	-	0	No data available	No data available	-
8 – The Groaten	-	0	No data available	No data available	-
9 – A46	DfT (2017)	215	18,991	19,207	1.1%
10 – B4079	-	0	No data available	No data available	-
11 – A435	DfT (2023)	274	14,624	14,899	1.9%
12 – B4077	-	81	No data available	No data available	-
13 – Beckford Road	-	0*	No data available	No data available	-

\*Link not coded within model but inferred from adjacent links.

3.1.3 Table 3.1 demonstrates:

- Links 1, 2, 3, 4, 9, 11 – the agreed assessment threshold is not triggered.

<sup>2</sup> A year of 2027 has been used for consistency with the submitted Environmental Assessment and represents estimated Opening Year. Beyond this, it can be reasonably expected that background traffic levels would increase and the percentage impact would reduce. Thus 2027 provides a robust view in the potential time horizon of the proposed development.

- Links 7, 8, 10 and 13 – are not forecast to accommodate any development trips and so there would be no impact.
- Links 5 and 6 – are unlikely to carry material amounts of development traffic. Link 6 in particular would likely only carry development traffic travelling to/from points on the link and there are very limited trip attractors. Link 5 could provide an alternative route, continuing from Link 4, to Pershore but the route north and along the A4104 is likely to provide a more attractive route than this. It can therefore be deduced that the percentage impact would be suitably low.
- Link 12 – the change in traffic flows is modest and whilst there is no background traffic data to calculate the percentage impact, the nature of the link forming part of the 'B' road network, is likely to carry a volume of traffic which would mean the impact is materially below 10%.

3.1.4 In summary, the 10% threshold for further assessment is not forecast to be met, when considering proposed development traffic, on any of the links through or adjacent to the CNL. Consideration is given in Section 4 to potential background reassignment of traffic.

## 4 Re-assignment of Background Traffic

- 4.1.1 To understand the potential impact of any reassignment of background traffic as result of the Mitton development, outputs from the 2031 Reference Case + Development and the 2031 Reference Case scenarios has been used. This approach allows both the traffic flows related to the development, and any associated reassignment of background traffic to be identified.
- 4.1.2 Comparing the difference to the development only flows helps to establish links where there could be reassignment of background traffic. This comparison is presented in Table 4.1 and Table 4.2 for those links coded into the GC3M model.
- 4.1.3 The GC3M considers the operation of the network within the AM and PM peak hours, when levels of queueing and delay are likely to be greatest on the wider network.



**Table 4.1: Traffic flow outputs from GC3M Strategic Traffic Model (Vehicles) – AM Peak (08:00 – 09:00)**

Link	Development Traffic	Overall Flow Change	Effect of re-assignment
1 – High Street	64	47	-17
2 – Kemerton Road (west)	27	25	-2
3 – Kemerton Road (east)	2	2	0
4 – B4080 Moreton Lane	21	27	6
7 – Ashton Road	0	0	0
8 – The Groaten	0	0	0
9 – A46	21	2	-19
10 – B4079	0	2	2
11 – A435	25	15	-10
12 – B4077	6	8	2

**Table 4.2: Traffic flow outputs from GC3M Strategic Traffic Model (Vehicles) – PM Peak (17:00 – 18:00)**

Link	Development Traffic	Overall Flow Change	Effect of re-assignment
1 – High Street	47	22	-25
2 – Kemerton Road (west)	19	22	3
3 – Kemerton Road (east)	1	-1	-2
4 – B4080 Moreton Lane	17	17	0
7 – Ashton Road	0	0	0
8 – The Groaten	0	0	0
9 – A46	19	8	-11
10 – B4079	0	3	3
11 – A435	26	6	-20
12 – B4077	9	9	0

4.1.4 The above tables indicate that there is limited evidence of the re-assignment of background traffic through the CNL, as a result of additional queueing and delay on the wider highway network associated with the addition of development traffic.

## 5 Summary & Conclusion

5.1.1 Based on the additional evidence presented within this note, it is considered that the proposed Mitton development would have a negligible impact with regards to traffic within the CNL, as the established 10% threshold is not exceeded.