

Project Name:	Campsfield, Southwater
Document Reference:	091.0018/ TGMR /2
Document Name:	Trip Generation & Modelling Rationale
Prepared By:	Eleanor Geary (September 2025)
Checked By:	Kim Hammonds (September 2025)
Approved By:	Tom Fisher (September 2025)

Revision Record				
Rev	Date	By	Summary of Changes	Aprvd
2	18.09.25	ERG	Client's comments	TAF

Disclaimer

This document has been prepared in accordance with the scope of Paul Basham Associates Ltd's appointment with its client and is subject to the terms of that appointment. It is addressed to and for the sole use and reliance of Paul Basham Associates clients. Paul Basham Associates accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part), use or rely on the contents of this document, without the prior written permission of a Director of Paul Basham Associates. Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the document as a whole. The contents of this document are not to be construed as providing legal, business or tax advice or opinion.

© Paul Basham Associates Limited

1. INTRODUCTION

- 1.1 This Trip Generation & Modelling Rationale has been prepared by Paul Basham Associates on behalf of Miller Homes to support the residential development of up to 82 units at the site known as Campsfield, Southwater, in support of an Outline planning application with all matters reserved (except access). The site location is shown in **Figure 1**.

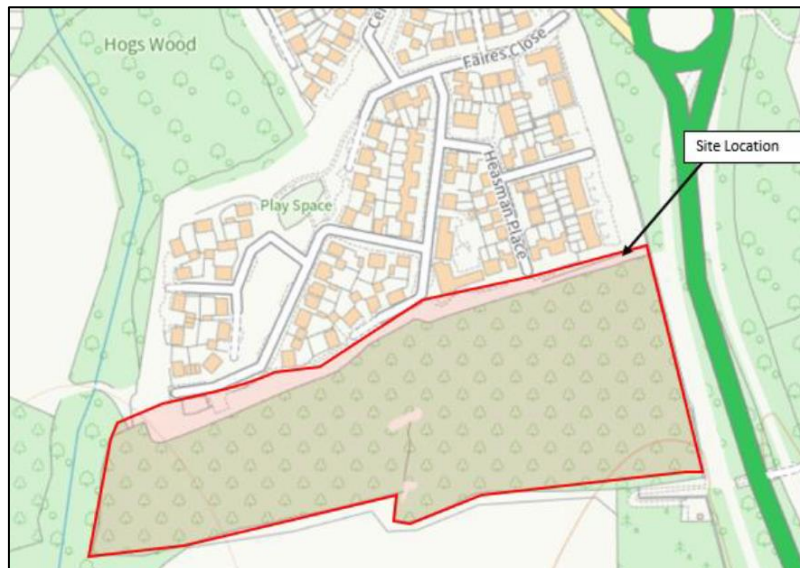


Figure 1: Site Location

- 1.2 This report has been prepared in response to a request from Horsham District Council (HDC) Planning Committee, held on 2nd September, asking for further clarification regarding the

potential highways impact of committed developments on the highway network associated with the Campsfield, Southwater planning submission (ref: DC/25/0102).

- 1.3 Specifically, HDC have sought additional information to understand the steps undertaken to gather, verify and compile the vehicle trip data in relation to the highways impact accounting for other committed developments within the area. HDC stated:

‘To ascertain if the application was considered cumulatively in terms of potential highways impact, with other consented, allocated development (including, but not limited to Horsham Golf and Fitness and Rascals Farm)’

- 1.4 Land off Shipley Road, Southwater (Rascals Farm) is for a 96-unit scheme. An Outline application has been submitted for the Rascals Farm site (ref: DC/20/0695). As well as a subsequent Reserved Matters application, submitted in February 2024 (ref: DC/24/0249). For the remainder of this report this site will be known as Rascals Farm.
- 1.5 Horsham Golf & Fitness (planning ref: DC/23/1178) is for the development of a Sports and Leisure Hub including the provision of communal facilities, nursery, Golf College, sports club house and an educational facility for Warren Clark Golfing Dreams; a local centre containing a convenience store and co-working space; the provision of supporting landscaping, open space and related infrastructure; outdoor sports and leisure provision comprising Driving Range, reprovision of golf (including supporting golf facilities) and hockey and up to 800 dwellings.
- 1.6 A Transport Assessment (TA) was produced to support an *‘Outline application with all matters reserved except for access for up to 82 dwellings with vehicular and pedestrian accesses, public open space, noise mitigation measures, landscaping, foul and surface water drainage and associated works.’*, which included a vehicle trip generation assessment as well as modelling of the Mill Straight Roundabout junction, which serves the proposed development site.
- 1.7 West Sussex County Council (WSCC) provided comments on the planning submission, dated 11th March 2025 (**Appendix A**). Their only request was for additional information for the Vision led approach.

- 1.8 Regarding the detailed modelling and vehicle trip assessment (which included Rascals Farm as a committed development), the information was reviewed and deemed to be suitable and acceptable by WSCC. WSCC stated that the modelling shows no indication that the site will *'give rise to any increase or material change over and above what has previously been agreed'*. This meets policy requirements set out in In NPPF paragraph 116 which states *"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."*
- 1.9 Following receipt of these comments a meeting was undertaken with WSCC on the 26th March 2025. An Addendum Transport Assessment (ATA) was then submitted to as an additional planning document to provide the requested information about the vision led approach.
- 1.10 WSCC provided a response dated 8TH May 2025 that said *'Having assessed the content within the TA addendum including the modifications requested, the LHA would be satisfied the proposals and not advise an objection on highway safety grounds [sic]'*.
- 1.11 Therefore, based on WSCC acceptance, the purpose of this report is not to introduce new data but to provide further clarity and justification on the original data which has been submitted and accepted by WSCC in their role as the Local Highway Authority. The steps undertaken to compile and verify the trip information will be outlined, along with justification for the trips utilised and modelling undertaken, including justification on the committed developments selected.
- 1.12 This report aims to demonstrate the vehicle trip data used is both appropriate and representative of the potential cumulative highways impact, with consideration to other consented and/or allocated developments.
- 1.13 As noted previously, the modelling assessment has included for Rascals Farm, however, did not include for Horsham Golf & Fitness, therefore reference will be made to this site and justification provided on its exclusion within this report.

2. VEHICLE TRIP ASSESSMENT & MODELLING

- 2.1 As part of the submitted Transport Assessment a junction capacity assessment was undertaken of the proposed vehicle access serving the development, which is the Mill Straight Roundabout (Mill Straight North/Roman Lane/Mill Straight South and Centenary Road), to confirm whether the junction has sufficient capacity to accommodate the additional traffic generated by the proposed development.
- 2.2 As part of this assessment, vehicle trip rates (based on the adjacent Mulberry Fields development, which also uses the roundabout junction), traffic surveys and vehicle distributions were used.
- 2.3 Vehicle trip rates were obtained from a TRICS SAM survey undertaken at Mulberry Fields in 2022 and applied for the proposed development. These vehicle trips rates were utilised as Mulberry Fields is accessed via Centenary Road, off the western arm of the Mill Straight roundabout, from which the proposed development would also access the wider highway network. TRICS is an industry standard recognised database which is utilised to forecast vehicle trip rates for development proposals. The opportunity to use directly comparable site data, collected in 2022 for the site next door was considered to present the most robust assessment against which future vehicle trips could be calculated. Therefore, the selected trips are considered to reflect a typical pattern of vehicle movements for Centenary Road accessed off Mill Straight Roundabout under normal operating conditions and were chosen on their relevance for the proposed use. This was agreed to be acceptable for use by WSCC highway officers.
- 2.4 To understand the baseline operation of the roundabout itself traffic surveys were undertaken in June 2023 to confirm the current distribution of vehicles utilising both Centenary Road and all arms of the Mill Straight Roundabout. This was agreed to be acceptable by WSCC highway officers.
- 2.5 Further information on the vehicle trips and distributions utilised are provided within the submitted TA.

- 2.6 To ensure that the TA also included forecasted traffic impacts a review was undertaken to identify local committed schemes, which would warrant inclusion in the traffic generation assessment.
- 2.7 As detailed within the TA Rascals Farm, was noted to utilise Mill Straight Roundabout, and therefore was included within the junction capacity assessment for the proposed Campsfield development. Therefore, the vehicle trips detailed within the Transport Assessment for the 96-unit scheme, submitted as part of the Outline application for the Rascals Farm site (ref: DC/20/0695) was included and was also checked against the subsequent Reserved Matters application, submitted in February 2024 (ref: DC/24/0249).
- 2.8 This was the only committed scheme included as part of the forecasting assessment, however a TEMPro growth factor was applied to the baseline vehicle trips for the local road network to understand the likely highway network baseline flows in 2029. TEMPro includes Local Plan allocations, as part of its predicted growth assessment, therefore development sites that are smaller or too far away to significantly impact on a particular junction are still included in the future growth in vehicle trips on the highway network.
- 2.9 Junction modelling using Junctions 9 was undertaken for the Mill Lane Roundabout for the following scenarios:
- Baseline 2023 (for validation purposes)
 - Baseline 2024,
 - Baseline 2029
 - Baseline 2029 + Committed Development and
 - Baseline 2029 + Proposed Development + Committed Development.
- 2.10 Details of the full scenarios and the outputs are presented within the submitted TA. With the Baseline 2029 + Committed Development and Baseline 2029 + Proposed Development + Committed Development provided below for reference in **Table 1**.

Arm	AM Peak Period			PM Peak Period		
	Queue	Delay (s)	RFC	Queue	Delay (s)	RFC
Baseline 2029 + Committed Development						
Roman Lane	0.1	5.06	0.09	0.1	4.30	0.05
Mill Straight South	0.3	3.42	0.20	0.6	4.24	0.36
Site Access (Centenary Road)	0.2	4.69	0.12	0.1	4.98	0.07
Mill Straight North	0.6	4.02	0.34	0.3	3.39	0.22
Baseline 2029 + Proposed Development + Committed Development						
Roman Lane	0.1	5.14	0.09	0.1	4.33	0.05
Mill Straight South	0.3	3.44	0.20	0.6	4.32	0.37
Site Access (Centenary Road)	0.2	4.91	0.16	0.1	5.05	0.09
Mill Straight North	0.6	4.09	0.35	0.3	3.42	0.22

Table 1: Modelling Outputs

- 2.11 As shown in **Table 1**, the modelling outputs assessed the operational performance including Ratio of Flow to Capacity, queue lengths and average delay. These confirmed the Mill Straight Roundabout junction would continue to operate within capacity in all scenarios. Therefore, demonstrating that the proposed development would not result in a severe impact on the local highway network in line with NPPF paragraph 116.
- 2.12 As noted previously WSCC have reviewed this assessment, as the Local Highway Authority, and have deemed it acceptable.

3. RASCALS FARM AND HORSHAM GOLF & FITNESS ASSESSMENT

- 3.1 While compiling the baseline vehicle trip data used to support the proposed development (Campsfield), as noted in **Section 2**, a review of the planning portal was undertaken, and developments were included that were anticipated to have a direct and potentially material impact on the same highway network and junctions serving the proposed Campsfield development.
- 3.2 Rascals Farm was included within our assessment given its location to the site, and the expected use of Mill Straight Roundabout by vehicles associated with the development.
- 3.3 As such the Transport Assessment submitted for Rascals Farm was reviewed and vehicle trips that were expected to use the Mill Straight Roundabout were included as part of the 'Committed Development' trips.
- 3.4 At HDC's Planning Committee Horsham Golf & Fitness development was also raised as a site that members felt required inclusion as a committed development. The submitted Transport Assessment for Campsfield did not include the Horsham Golf & Fitness application because the application was refused on 14th May 2024, and therefore at the time of the assessment for the proposed development this application proposal would have been considered to be outside of the scope of our application.
- 3.5 Despite this, and to respond to HDC's Committee, we have reviewed the submitted documents for the development of Horsham Golf & Fitness to understand if vehicle trips will utilise Mill Straight Roundabout and what impact they may have on operation of this junction.
- 3.6 A review of the planning application was undertaken (planning ref: DC/23/1178), which presented an assessment of vehicle trips within the locality of the proposed development. Within the assessment undertaken a review of the A24 Mill Straight (Pollards Hill) roundabout was included. Pollards Hill roundabout is located southeast of our application site.
- 3.7 The Transport Addendum trip distributions diagrams were provided for Pollards Hill Roundabout which presented 1% of trips turning left out of Mill Straight heading north on the A24 and 1% of trips turning right onto Mill Straight from the A24(N). In the AM peak this equates to 3 vehicle trips turning right onto Mill Straight from the A24 and 1 vehicle turning

left out of Mill Straight onto the A24(N) in the AM peak. While the PM peak presented 2 vehicle trips turning right onto Mill Straight from the A24 and 3 vehicle trips turning left onto the A24 (N) from Mill Straight. The addition of no more than 5 two-way peak hour vehicle trips on the Mill Straight arm of the Pollards Hill Roundabout (which will go onto use the Mill Straight Roundabout) is not considered to be significant and well within daily fluctuations on the local road network.

- 3.8 Therefore, there will be minimal impact from the Horsham Golf & Fitness application on the operation of the Mill Straight Roundabout, which as highlighted in **Table 1** shows that it operates well within capacity.
- 3.9 The assessment provided within the Campsfield Transport Assessment was undertaken in line with standard practice to focus on schemes that could have a direct impact on the future development proposal, ensuring proportionality and relevance. Therefore, the request for additional information by HDC has been considered and our review confirms that no changes are considered necessary to the submitted Transport Assessment, and that the inclusion of Rascals Farm was sufficient.

4. SUMMARY

- 4.1 This Trip Generation & Modelling Rationale has been prepared by Paul Basham Associates on behalf of Miller Homes to support the residential development of up to 82 units at the site known as Campsfield, Southwater, in support of an Outline planning application with all matters reserved (except access).
- 4.2 This report has been prepared in response to a request from Horsham District Council (HDC) Planning Committee, held on 2nd September, asking for further clarification regarding the potential highways impact of committed developments on the highway network associated with the Campsfield, Southwater planning submission (ref: DC/25/0102). WSCC in their role as the Local Highway Authority have reviewed the submitted TA and ATA and stated that the modelling shows no indication that the site will *'give rise to any increase or material change over and above what has previously been agreed'*. In line with NPPF paragraph 116.
- 4.3 Vehicle trip rates (based on the adjacent Mulberry Fields development, which also uses the roundabout junction), traffic surveys and vehicle distributions were used to aid the junction capacity assessment for Campsfield. Further information on the vehicle trips and distributions utilised are provided within the submitted TA.
- 4.4 To aid the baseline vehicle trip data, a review of the planning portal was undertaken. Rascals Farm was included within our assessment given its location to the site, and the expected use of Mill Straight Roundabout by vehicles associated with the development. This was the only committed scheme included as part of the forecasting assessment, however a TEMPro growth factor was applied to the baseline vehicle trips for the local road network to understand the likely highway network baseline in 2029.
- 4.5 While HDC noted Horsham Golf & Fitness development the application was refused on 14th May 2024, and therefore at the time of the assessment for the proposed development this application proposal would have been considered to be outside of the scope of our application. However, a review of Horsham Golf & Fitness shows there is minimal impact in relation to the proposed site, with the junction modelling accepted at appeal in July 2025.

- 4.6 We hope this provides a sufficient and comprehensive explanation of the assessment approach and justifications for Horsham District Council to look favourably upon this development in relation to their additional request for information on highways.

Appendix A

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Horsham District Council FAO: Stephanie Bryant
FROM:	WSCC – Highways Authority
DATE:	11 th March 2025
LOCATION:	Land at Campsfield Linfield Close Southwater West Sussex RH13 9FR
SUBJECT:	DC/25/0102 Outline application with all matters reserved except for access for up to 82 dwellings with vehicular and pedestrian accesses, public open space, noise mitigation measures, landscaping, foul and surface water drainage and associated works.
DATE OF SITE VISIT:	n/a
RECOMMENDATION:	More Information

Background

WSCC in its role of Local Highway Authority (LHA) has been consulted on the proposals for highway safety, capacity and access. The development proposals subject to this Outline application are for up to 82 units, of which it is expected that at least 50% will be 2-3 bed units. The site will be accessed from the Mulberry Fields development to the north. This application (DC/14/2582) to the north was a development for 193 units which the LHA raised no objections to in 2014.

The highway aspects of the application are supported by way of a Transport Assessment (TA).

Vision Led Approach to the TA

In line with paragraphs 115 and 118 of the National Planning Policy Framework (NPPF) a vision-led transport planning seeks to set out a preferred future in terms of how people will travel and cater for that vision, promoting active and sustainable travel. It seeks to move away from a Predict & Provide approach. Where future travel forecasts are predicated on historical travel data and the assumption that future travel habits will mirror those in the past. The Vision-led approach also incorporates more rigorous monitoring, and potentially additional mitigation, should the monitoring show that forecasts do not materialise as envisaged at application stage. WSCC requires that Transport Assessment and Statements are taking a vision led approach, as is now required by the NPPF.

The LHA would therefore request some additional clarity from the applicant on the following matters:

- The applicant should demonstrate how the vision led approach has been adopted through the TA.
- Explicit vision and specific targets in the Travel Plan should be provided. It is noted that the standard target of 10% reduction in vehicle trips has been set

within the Travel Plan. However, no vision is included and clarification should be provided as to whether additional targets are to be set.

- How will any additional mitigation be provided, if the target and vision isn't met? What form will this additional mitigation take?

Travel Plan

Notwithstanding the points above, the submitted travel plan is noted. The applicant should note that WSCC apply an auditing fee to all new travel plans. The travel plan and associated auditing fee would be secured via a s106 agreement. The Travel Plan auditing fees reflect the amount of local authority officer time required to evaluate the initial plan, assess the monitoring data and participate in on-going review and agreement to any amended plans in the future, including post planning once the development is built out and occupied. The costs have been benchmarked against fees charged by other Local Authorities and are considered to be proportionate and reflective of the costs incurred.

Access and Visibility

The proposed development would be accessed via the neighbouring Mulberry Fields development, with vehicles utilising Centenary Road. The TA demonstrates visibility splays at the access in line with Manual for Streets (MfS) guidance for a 30mph speed limit in line with the internal speed limit of Centenary Road. Visibility splays from the access appear to be achievable with 2.4m x 43m in the primary direction and to 2.4m x 22m in the secondary direction, reflecting the end of the carriageway.

In terms of servicing delivery, refuse and deliveries will take place from on-site and an internal turning area will be provided to allow access and egress the site in a forward gear within Appendix B of the TA.

In principle the LHA would be satisfied with the access strategy put forward by the applicant.

Network Capacity

Traffic flow information has been provided with the current application within the TS, this has been provided by the applicant on what vehicular activity currently exists at the site. This information considers the permitted and proposed uses. The traffic flow generation is based upon the use of TRICS. TRICS is a database containing surveys of other completed and occupied developments. The database can be refined to use comparably located site uses to forecast potential traffic generation. TRICS is an accepted means of determining traffic generation. Using this data, it is evident that the proposed development would generate 45 AM movements and 29 PM movements.

Junction Modelling

As outlined within the TA Section 6 the applicant has tested the capacity of the following junctions via Junctions 9 software. The assessment takes into account:

- Baseline 2023 (for validation purposes)
- Baseline 2024
- Baseline 2029
- Baseline 2029 + Committed Development
- Baseline 2029 + Proposed Development + Committed Development

The following junctions have been assessed with the Junctions 9 assessment:

- Roman Lane – The modelling highlights the junction would operate within capacity
- Mill Straight South – The modelling highlights the junctions would operate within
- Site Access – The modelling highlights the junction would operate within capacity, there will be a minor increase in queuing however

- Mill Straight North– The modelling highlights the development would have not have an effect on the operation.

Having assessed all the scenario's there is no expectation for this proposal to give rise to any increase or material change over and above what has previously been agreed.

Layout and Parking

Whilst it is acknowledged the application is for Outline consent only the LHA has reviewed the indicative drawings submitted within the TA and would offer the following comments to be taken into consideration:

- Walking and cycling connection central path within the site to existing dev north of it (plus link on the existing site to be provided). Consideration should be given to priority for pedestrians and cyclists across the access road possibly incorporated into a speed control, as latter needed given straight alignment of the spine road.
- Service margin missing from northern edge (this could also be put in as a footway).
- Driveways widths for some of the plots look narrow – recommend 6.0m min width to give decent space to open doors.
- Path running along the northern side of the eastern portion of the site, it is suggested that this be widened to permit walking and cycling.
- Fire and refuse collection should be demonstrated as some of the drives/narrower access roads etc. might make it difficult for access by said vehicles.
- What is proposed main spine road width? Ideally the final design should avoid anything less than 4.8m although private drives could be narrower. However, final widths would probably be dictated by refuse and Fire and Rescue requirements.
- EV cables ducting for parking spaces remote from dwellings.
- The TA acknowledges that parking will be in accordance with LHA parameters.

Conclusion

Having assessed the information submitted within the TA the LHA would request some further information on the point regarding the Vision Led Transport Planning approach as outlined in the first stage of this report.

Jamie Brown
West Sussex County Council – Planning Services