PROPOSED RESIDENTIAL DEVELOPMENT, BLAINSCOUGH LANE, COPPULL (2385)
TRANSPORT ASSESSMENT ADDENDUM V1 | JUNE 2021

1. Introduction

1.1 Croft were appointed by Lea Hough to advise on the traffic and transportation issues relating to proposals to develop a site on land at Blainscough Hall in the Coppull area of Chorley.

1.2 A comprehensive Transport Assessment (TA) and Framework Travel Plan (FTP) were submitted to Chorley Council (CC), the Local Planning Authority (LPA) as part of the application package, which was validated in December 2020. The application however was refused at planning committee in April 2021 and an Addendum to the Committee report included a highways objection from Lancashire County Council (LCC) who are the Local Highways Authority (LHA).

1.3 In the addendum to the Committee report, LCC advised that:

'As submitted LCC CANNOT support this development, however, should the developer provide further analysis and where appropriate propose mitigation measures then this view could change'.

1.4 A summary of the LCC objections is provided below, while the full Committee Addendum is contained within **Appendix 1**. LCC have confirmed that the TA requires updating with;

1. Agreement on appropriate trip rates
2. Junction capacity assessment for Preston Road/Spendmore Lane and Spendmore Lane/Grange Drive, to include future years and committed development
3. Review of road safety on Spendmore Lane and mitigation scheme
4. Review of walking routes and improvements
5. Details regarding access to Blainscough Lane and pedestrian improvements

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2. Scope of Addendum

2.1 This Addendum to the TA has therefore been prepared to address the points raised, with a view to seeking agreement on these matters so they could form the basis for a Statement of Common Ground (SoCG) should the application proceed to Appeal.

2.2 For ease, each of the comments are addressed in the following paragraph, in the same order as they are set out above.

3. Agreement on appropriate trip rates

3.1 The submitted TA included a section on traffic impact and considered the likely traffic generated by the site in the AM and PM peaks hours.

3.2 This section of the TA confirmed that the development proposals are likely to consist of up to 123 new residential dwellings.

3.3 In order to establish the number of trips which the proposed development is forecast to generate the TRICS database was used for the 'Residential – Houses Privately Owned' range of sites. The parameters used to ascertain the vehicular trip rates for the proposed development were as follows:

- Range between 0 and 300 dwellings
- Monday to Friday surveys
- Sites in Greater London and Eire excluded.

3.4 A summary of these trip rates and the likely level of trips that would occur as a result of the proposed development comprising 123 units, as set out in the TA is included in **Table 3.1**, below.

Period	Trip Rate		Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.129	0.329	15	40
PM Peak Hour	0.297	0.156	37	19

Table 3.1 Proposed Development Trip Rates and Trips from TA (123 Units)

3.5 As can be seen, the proposed residential development was forecast to generate a total of 55 two-way trips in the weekday AM peak and 56 two-way trips in the weekday PM peak.

3.6 The comments received from LCC stated that there were elements of the TA which are not agreed and this included the Traffic Generation. More specifically LCC stated that *'The trip rates, whilst derived from the TRICS database appear to be low. LCC encourage developers to adopt the trip rate used in northwest Preston, when dealing with developments in the central Lancashire region'*.

3.7 In order to address this matter, the northwest Preston trip rates have been provided by LCC and the trip generation exercise has been repeated based on those rates. A summary of the LCC trip rates and the likely level of trips that would occur as a result of the proposed development comprising 123 units, is provided in **Table 3.2**, below.

Period	Trip Rate		Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.140	0.445	17	55
PM Peak Hour	0.437	0.226	54	28

Table 3.2 Proposed Development using LCC Trip Rates and Trips (123 Units)

3.8 Based on the higher LCC trip rates, the development is forecast to generate a total of 72 two-way trips in the weekday AM peak and 82 two-way trips in the weekday PM peak.

3.9 For comparison purposes, the trips set out in the TA are presented in **Table 3.3**, along with the LCC trip rates.

Scenario	AM		PM	
	Arr	Dep	Arr	Dep
TA Trip Rates	15	40	37	19
LCC Trip Rates	17	55	54	28
Difference	**+2**	**+15**	**+17**	**+9**

Table 3.3 Comparison of Trip Rates (123 Units)

3.10 As can be seen above, the use of the LCC trip rates would potentially result in 17 additional two-way trips in the weekday AM peak hour and around 26 additional two-way trips in the weekday PM peak hour.

3.11 It remains our view that the original trip rates presented in the TA were appropriate. However, for the purpose of this note and in order to reach agreement with LCC, the higher LCC trip rates have now been adopted.

3.12 This can be considered to be particularly robust.

4. Junction capacity assessments for Preston Road/Spendmore Lane and Spendmore Lane/Grange Drive, to include future years and committed development

4.1 As reported in the TA, prior to submission of the application, it was not possible to conduct traffic surveys which could be regarded as representative of 'typical' traffic conditions due to the on-going effects of Covid-19 on general travel and commuting in particular.

4.2 No relevant historical data was able to be sourced.

4.3 However, for the purpose of this report and following discussions and agreement with LCC, traffic surveys were commissioned at the following junctions:

- Spendmore Lane/Grange Drive; and
- A49 Preston Road/Spendmore Lane.

4.4 The surveys were undertaken on Wednesday 5th May 2021 between 0730 and 0930 hours in the morning and between 1630 and 1830 hours in the evening. The full traffic survey data is contained within **Appendix 2**. The peak hours were identified as 0800 to 0900 hours and 1645 to 1745 hours, for the AM and PM peaks respectively.

4.5 The 2021 surveyed flows for the peak hours converted into Passenger Car Units (PCU's) are shown in **Figures 1** and **2**.

4.6 For the purpose of this Report, assessments have been undertaken for a design horizon of 2026, representing five years after the application registration. This can be considered to be a robust approach.

4.7 To derive the baseline 2026 flows, the 2021 surveyed flows have been growthed to 2026 using National Traffic Model (NTM) factors adjusted by using the Trip End Model Program (TEMPro) local growth factors.

4.8 The resultant 2026 growthed traffic flows are shown in **Figures 3** and **4** for the AM and PM peak periods.

4.9 The resultant growth factors are shown below:

- 2021 to 2026 AM Peak - 1.0509
- 2021 to 2026 PM Peak - 1.0498

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4.10 Croft have not been made not aware by LCC of any committed developments in the area that would need to be considered in this report.

4.11 As there are no known committed developments to take into account, the 2026 growthed traffic flows presented in Figures 3 and 4 form the 2026 'Without Development' traffic flows for the assessments.

4.12 The directional distribution of the traffic associated with the proposals for the AM peak period is shown in **Figure 5** whilst the assigned PM peak traffic is shown in **Figure 6**.

4.13 The traffic associated with the development based on the LCC approved trip rates has already been established (Table 3.2 above) and equated to 17 arrivals and 55 departures in the morning peak and around 54 arrivals and 28 departures in the evening peak.

4.14 The resulting traffic flows based on the distribution shown in Figures 5 and 6 are shown in **Figure 7** for the AM peak and **Figure 8** for the PM peak traffic.

4.15 In order to calculate the 2026 'With Development' flows, the development flows contained within Figures 7 and 8 have been added to the 2026 'Without Development' flows contained within Figures 3 and 4.

4.16 The resulting 2026 'With Development' Flows are presented in **Figures 9** and **10** respectively for the AM and PM peak hours.

4.17 As agreed with LCC, this Addendum to the TA includes capacity assessments at the following junctions, to demonstrate that the traffic associated with the development can be adequately accommodated onto the local highway network;

- Spendmore Lane/Grange Drive; and
- A49 Preston Road/Spendmore Lane.

4.18 Both of the above junctions are mini-roundabouts and so have been assessed using the Junctions 9 ARCADY 9 - Roundabout Module.

4.19 It is generally accepted that an RFC (Ratio of Flow to Capacity) of below 0.85 indicates that a junction is operating within its theoretical capacity. The assessments undertaken on the local road network, as requested by LCC are detailed in the following paragraphs.

Spendmore Lane/Grange Drive

4.20 The results for the 2026 'Without Development' and 'With Development' flow scenarios are summarised within **Table 4.1** below with the full results contained within **Appendix 3**.

Arm	2026 'Without Development'				2026 'With Development'			
	Weekday AM		Weekday PM		Weekday AM		Weekday PM	
	Max RFC	Q	Max RFC	Q	Max RFC	Q	Max RFC	Q
Spendmore Lane (e)	0.57	1	0.69	2	0.59	1	0.74	3
Grange Road	0.59	1	0.54	1	0.62	2	0.58	1
Spendmore Lane (w)	0.16	0	0.06	0	0.30	0	0.12	0

Table 4.1 - Summary of ARCADY Results for Spendmore Lane/Grange Drive mini-roundabout

4.21 As can be seen above, the results show the junction will operate within its theoretical capacity in the 2026 'Without Development' flow scenario in both the AM and PM peak hours.

4.22 The results for the 2026 'With Development' assessments show that the junction will operate in a similar manner to the 'Without Development' in the AM and PM peaks.

4.23 This demonstrates that the development traffic will result in a minimal impact at the junction and as such, no mitigation is proposed.

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A49 Preston Road/Spendmore Lane

4.24 The results for the 2026 'Without Development' and 'With Development' flow scenarios are summarised within **Table 4.2** below with the full results contained within **Appendix 4**.

Arm	2026 'Without Development'				2026 'With Development'			
	Weekday AM		Weekday PM		Weekday AM		Weekday PM	
	Max RFC	Q	Max RFC	Q	Max RFC	Q	Max RFC	Q
A49 Preston Road (s)	0.47	1	0.46	1	0.46	1	0.48	1
A49 Preston Road (n)	0.46	1	0.68	2	0.47	1	0.72	3
Spendmore Lane	0.74	3	0.62	2	0.79	4	0.64	2

Table 4.2 - Summary of ARCADY Results for *A49 Preston Road/Spendmore Lane* mini-roundabout

4.25 As can be seen above, the results show the junction will operate without any capacity issues in the 2026 'Without Development' flow scenario in both the AM and PM peak hours.

4.26 The assessments show that the junction will continue to operate with reserve capacity in the 2026 'With Development' scenario in the AM and PM peaks. In light of such minimal impact, no mitigation is proposed.

4.27 The assessments undertaken have demonstrated that the proposals will have a minimal impact and will not give rise to any highway capacity issues.

4.28 It is therefore considered that the predicted level of traffic, even based on the higher LCC trip rates, can be accommodated onto the local highway network.

4.29 On that basis, it can be assumed that the impact of the proposals on the local highway network would be minimal and, in any event, could not be considered to be severe, as is the test set out within paragraph 109 of the NPPF.

5. Review of road safety on Spendmore Lane and mitigation scheme

5.1 In their comments in relation to road safety, LCC noted that;

"Spendmore Lane would be used by all vehicular traffic to the development and the vast majority of pedestrians, as such it is essential that this route is seen to be safe for all road users".

5.2 In order to provide an updated assessment of road safety, reference has again been given to the CrashMap website, the area covered has been extended and data for 2020 has now been included.

5.3 The updated review has confirmed the accidents previously identified, as presented in the submitted TA and includes 5 additional incidents on Spendmore Lane (to the east), as shown in **Figure 5.1** below. The corresponding accident data is provided at **Appendix 5**.

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Figure 5.1 - CrashMap Accident Plot

5.4 The above review now accords with the information received from LCC which stated that:

"From Preston Road to Grange Drive (approximately 300m) there are 4 recorded injury accidents (all slight) in a five year period. From Grange Drive eastwards along Spendmore Lane the road safety record is poorer with 5 injury accidents (3 severe and 2 slight) within 500m of Grange Drive".

5.5 The additional personal injury accidents are summarised in **Table 5.1** below (shown in *italics*).

Date	Severity	Light Conditions	Weather	Road Conditions	Manoeuvre
17/10/2016	Slight	Daylight	Rain	Wet/Damp	Collision
13/11/2017	Slight	Daylight	Fine	Dry	Collision
04/12/2017	Slight	Daylight	Fine	Dry	Shunt
03/09/2019	Slight	Daylight	Rain	Wet/Damp	Shunt
21//10/2016	*Serious*	*Daylight*	*Fine*	*Dry*	*Car struck pedestrian*
06/01/2016	*Slight*	*Daylight*	*Fine*	*Dry*	*Shunt*
09/07/2016	*Slight*	*Daylight*	*Rain*	*Wet/Damp*	*Car/cycle collision*
05/03/2020	*Serious*	*Daylight*	*Fine*	*Dry*	*Provisional data only*
14/03/2017	*Serious*	*Daylight*	*Fine*	*Dry*	*Car/cycle collision*

Table 5.1 - Accident Summary

5.6 As reported in the TA, the data reviewed, including the additional incidents has not identified any untypical accidents.

5.7 The evidence continues to show that there are no particular engineering issues or problems with the road network or junction layouts.

5.8 It is not considered that the proposals for a residential development will unduly change the characteristics or nature of the surrounding highway network and as such will not have a detrimental impact on overall road safety.

5.9 Indeed, the potential improvements (discussed in the following section) to the existing pedestrian infrastructure has potential to have a positive impact of general road and highway safety.

6. Review of walking routes and improvements

6.1 In assessing the TA, LCC acknowledged that it considered the walking distances to various local amenities and facilities. However, they advised that this is only one element of why a particular route for walking and cycling may be used. as such, they requested that;

"The quality of that route is also an important factor and as such the provision of dropped kerbs and crossing points and desire lines need to be taken into consideration".

6.2 In light of the above, a review of existing walking routes to local facilities has been undertaken, to cover the following areas;

- From Grange Drive along Spendmore Lane approximately 500m to the east; and
- From Grange Drive along Spendmore Lane approximately 300m to the west.

6.3 In order to consider the above, the walking routes identifying existing pedestrian infrastructure has been prepared and is shown in **Plan 3**. As can be seen on the plan, there are a number of junctions where no dropped kerbs or tactile paving exists.

6.4 These can be confirmed as follows;

- Grange Drive/Manor Way – no tactile paving
- Pedestrian refuge on Spendmore Lane – no tactile paving
- Spendmore Lane/Hill View Drive – no tactile paving
- Spendmore Lane/Ashdale Close – no tactile paving
- Worn road marking on zebra crossing on A49
- Worn carriageway markings at northbound bus stop on A49
- Worn carriageway markings at southbound bus stop on A49

6.5 In order to enhance the existing walking environment, a number of potential improvements have been identified and are shown in **Plan 4**.

6.6 As can be seen from the plan, there is potential for the following improvements to be provided as part of the proposed development:

- Grange Drive/Manor Way – provision of tactile paving
- Pedestrian refuge on Spendmore Lane – provision of tactile paving
- Spendmore Lane/Hill View Drive – provision of tactile paving
- Spendmore Lane/Ashdale Close – provision of tactile paving
- Refresh worn road marking on zebra crossing on A49
- Refresh worn *'Bus Stop'* carriageway markings at northbound bus stop on A49
- Refresh worn *'Bus Stop'* carriageway markings at southbound bus stop on A49

6.7 The above improvements will assist in easing the movement of pedestrians and help to encourage trips to and from the site on foot.

6.8 The precise details and extent of works to be delivered will be discussed and agreed with highways officers at LCC.

6.9 In regard to public transport infrastructure, LCC have confirmed that all bus stops in the locality are already served by shelters which meet the LCC standard and so no contribution to public transport infrastructure is required.

7. Access to Blainscough Lane and Pedestrian Improvements

7.1 It can be confirmed that it is not intended to provide a vehicular or pedestrian access from the development onto Blainscough Lane.

7.2 It is considered that while the provision of such a link could potentially benefit residents by reducing walking times to some facilities, it is not considered necessary, as the rest of the site and indeed the main point of access provides good links to existing infrastructure to the north and provides adequate connectivity to the immediate area and further afield.

7.3 LCC have indicated that access from Blainscough Lane would not be necessary to make the development acceptable, but they confirmed that improvements to Blainscough Lane such as street lighting would have been required to make the route viable and safe for pedestrians.

8. Summary and Conclusions

8.1 This TA Addendum has been prepared to address the comments raised by LCC in relation to the submitted Transport Assessment.

8.2 Overall, LCC were satisfied with the principle of a residential development at this location, but requested that additional information be provided to give them the required comfort that the proposals could be accommodated by the local highway network and not give rise to any highway or road safety issues.

8.3 This note has therefore reconsidered the potential traffic impact of the development by adopting the LCC accepted trip rates used in northwest Preston, when dealing with developments in the central Lancashire region.

8.4 While it remains Croft's view that the original trip rates were appropriate for the site, the trip generation exercise has been repeated based on the agreed higher trip rates and so any subsequent assessments can be considered to be particularly robust.

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8.5 This note has also included capacity assessments of two junctions on the network, as requested by LCC. The results have shown that the development traffic can be adequately accommodated and the additional traffic will not result in any capacity issues at either the Spendmore Lane/Grange Drive or A49 Preston Road/Spendmore Lane junctions.

8.6 Additional information has also been provided in relation to the impact of the development on road safety, with the previous review being expanded to include the most up to date information and including any incidents in 2020 (which was unavailable at the time of the application submission). The extended review concluded that the proposed development would not have a detrimental impact on road safety. Indeed, the potential improvements to existing infrastructure in the vicinity has potential to improve safety and have an overall positive impact, thus benefiting not only residents at the development, but the wider community as well.

8.7 This note has included a comprehensive review of pedestrian infrastructure in the area and noted a number of deficiencies for example junctions where no dropped kerbs or tactile paving is provided. Such facilities are important when aiming to encourage trips on foot and are of particular benefit to those who are less mobile or vulnerable users. The precise extent and nature of the improvements will be discussed and agreed with officers at LCC.

8.8 LCC also requested that clarification of the intended use of Blainscough Lane itself be provided. This note has confirmed that it is not intended to provide any form of access, including pedestrians at this location. Whilst a link may be beneficial in terms of reducing walking times to bus stops, particularly on Preston Road, LCC have confirmed verbally that such a connection is not considered necessary to make the scheme acceptable from a highway perspective.

8.9 It is acknowledged that the submitted Framework Travel Plan will require additional work before it can be agreed. However, LCC have confirmed that… *"as the application is in outline form the statement of intent it provides is considered sufficient at this stage".* the applicant is willing for the provision of a full Travel Plan to be conditioned.

8.10 It has therefore been demonstrated that the proposals will not give rise to any highway related issues or result in any road safety issues.

8.11 On that basis, it is considered that the proposed residential development will provide much needed housing in a highly sustainable location and should be deemed acceptable in transport terms by the local highway authority.

8.12 In conclusion, all issues raised by LCC in respect to the transport aspects of the proposals have been resolved and there should not be any objections on highway grounds.

Encs.

FIGURES **1 to 10**

PLANS

Plan 1	**Site Location**
Plan 2	**Proposed Site Layout**
Plan 3	**Walking Routes and Existing Infrastructure**
Plan 4	**Walking Routes and Potential Improvements to Existing Infrastructure**

APPENDICES

Appendix 1	**Committee Addendum**
Appendix 2	**Traffic Survey Data**
Appendix 3	**ARCADY Output for Spendmore Lane/Grange Drive**
Appendix 4	**ARCADY Output for A49 Preston Road/Spendmore Lane**
Appendix 5	**Personal Injury Accident Data**

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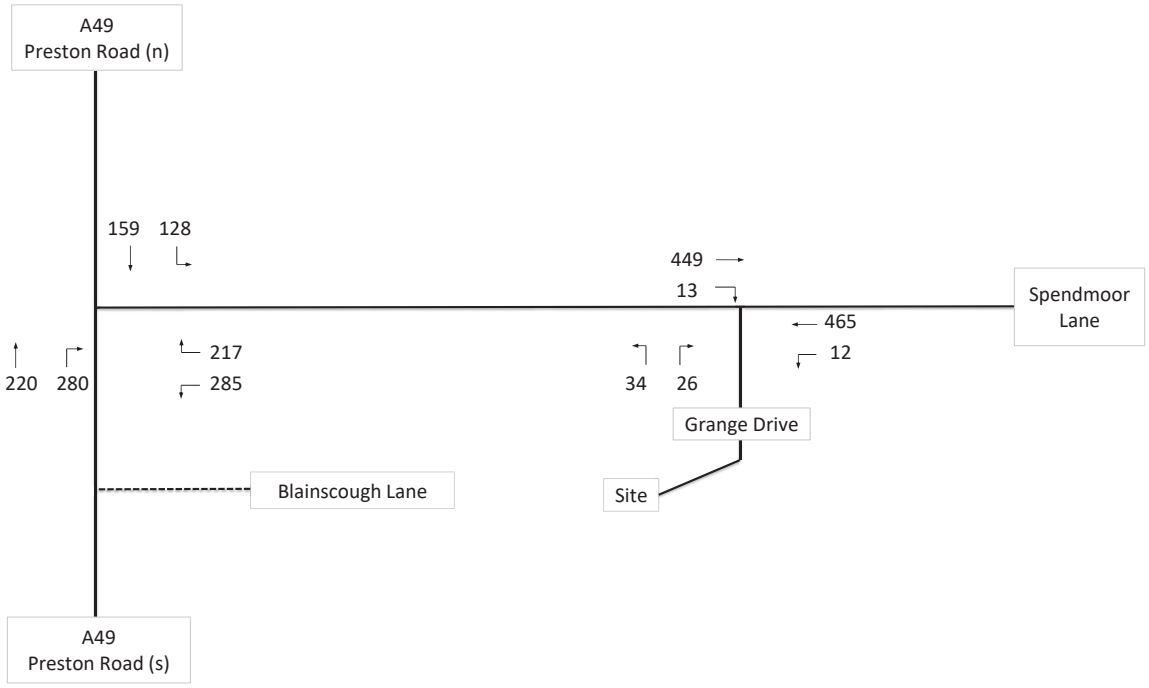
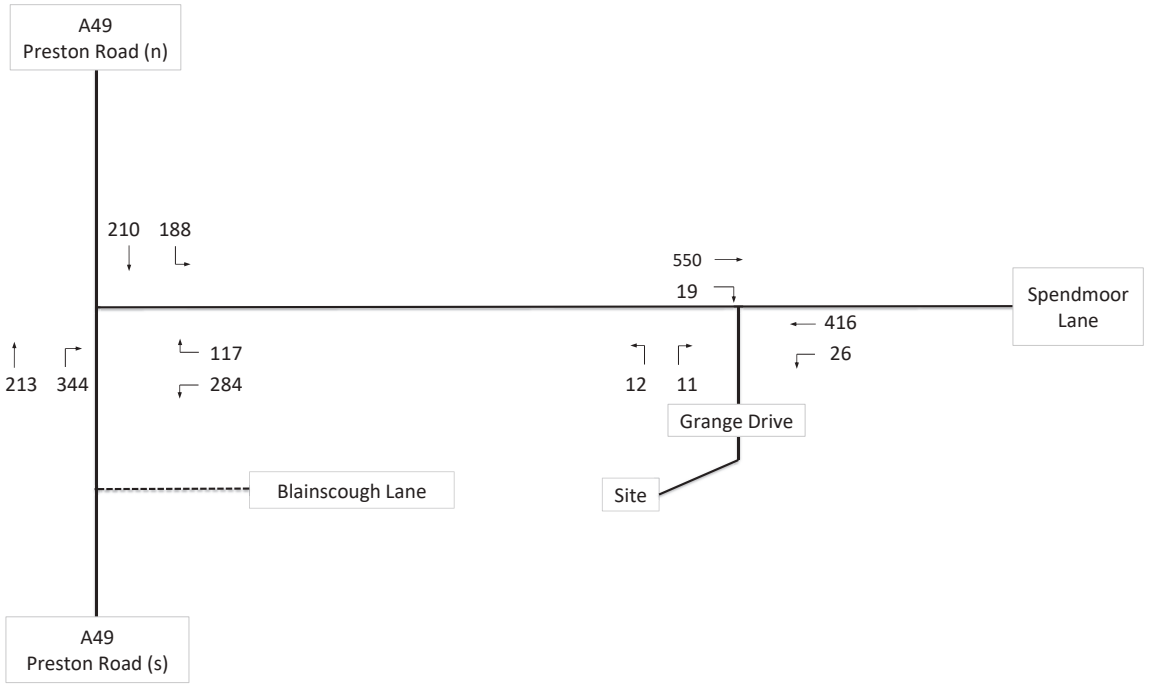
FIGURES

FIGURE	DESCRIPTION	SCENARIO	CALC
FIGURE 1	2021 SURVEYED FLOWS	AM PEAK	See TA
FIGURE 2	2021 SURVEYED FLOWS	PM PEAK	See TA
FIGURE 3	2026 BASE FLOWS	AM PEAK	FIG1xNTM
FIGURE 4	2026 BASE FLOWS	PM PEAK	FIG2xNTM
FIGURE 5	TRIP DISTRIBUTION	AM PEAK	See TA
FIGURE 6	TRIP DISTRIBUTION	PM PEAK	See TA
FIGURE 7	DEVELOPMENT FLOWS	AM PEAK	See TA
FIGURE 8	DEVELOPMENT FLOWS	PM PEAK	See TA
FIGURE 9	2026 ASSESSMENT FLOWS	AM PEAK	See TA
FIGURE 10	2026 ASSESSMENT FLOWS	PM PEAK	See TA



Flows in PCU's

Figure 1 2021 Surveyed Flows - AM Peak (0800-0900hrs)



Flows in PCU's

Figure 2 2021 Surveyed Flows - PM Peak (1645-1745hrs)

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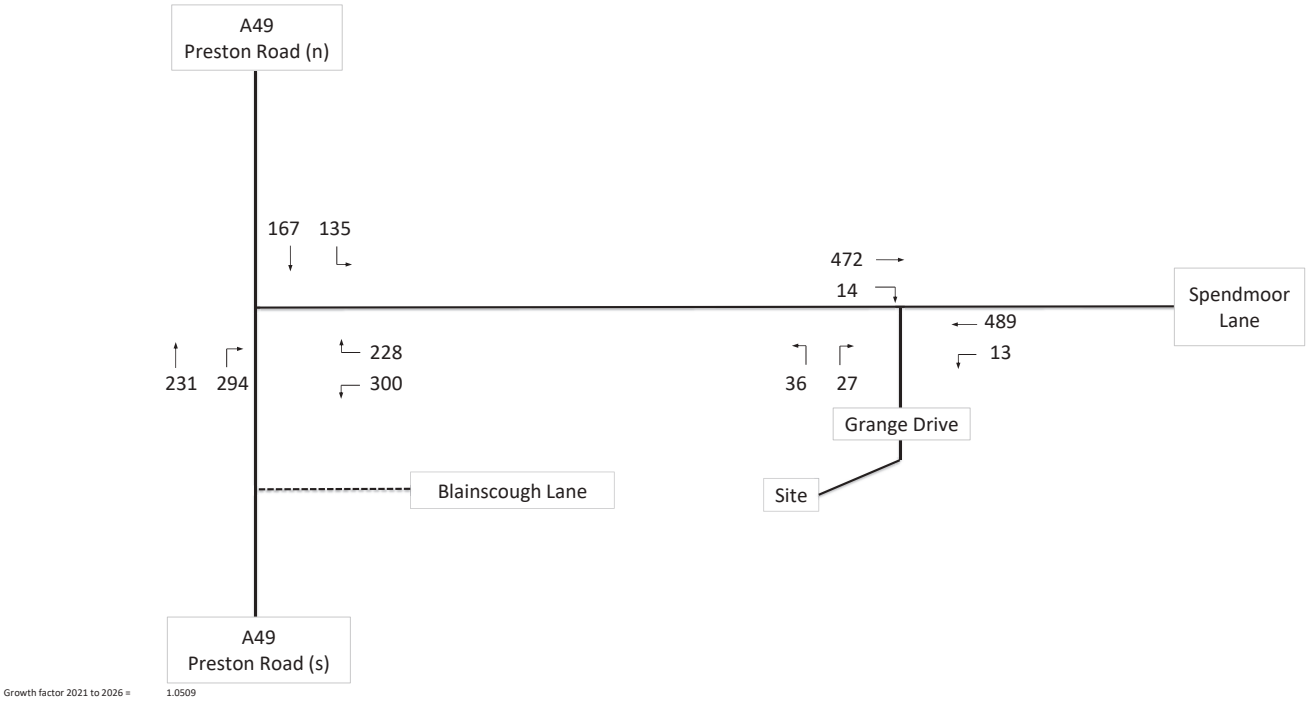

Figure 3 2026 Base Flows - AM Peak (0800-0900hrs)

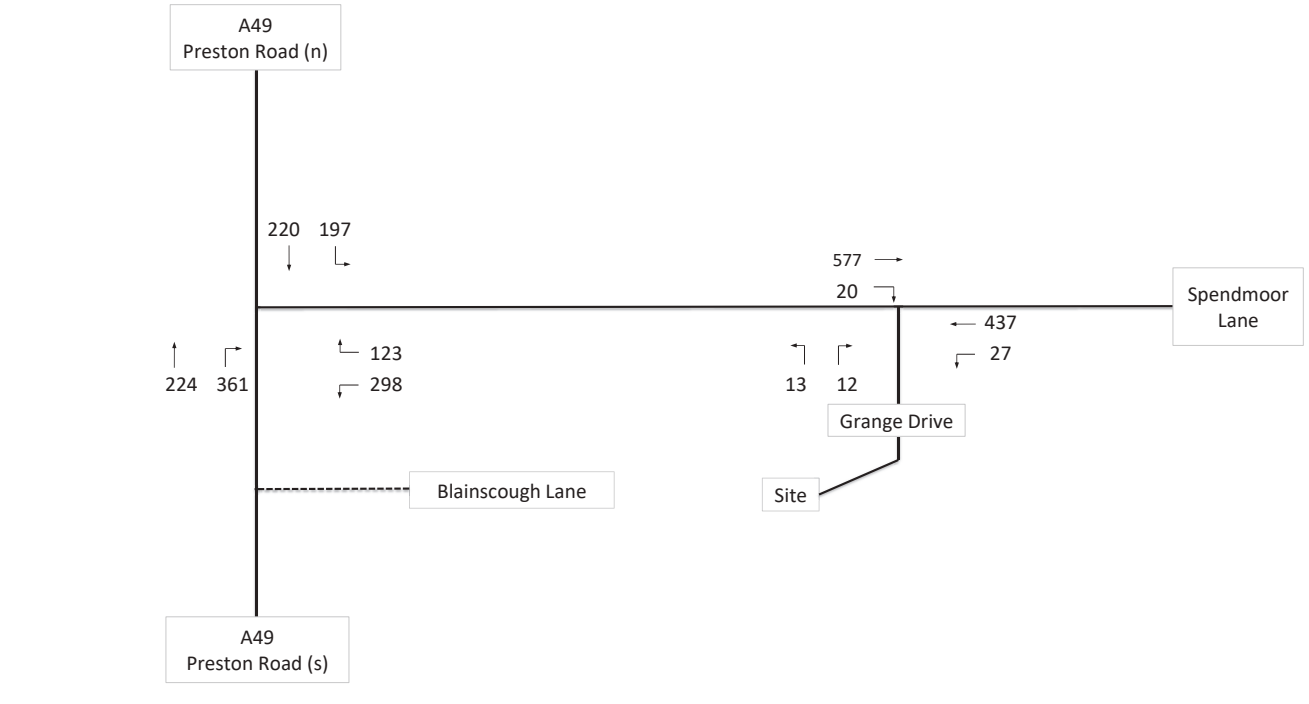

Figure 4 2026 Base Flows - PM Peak (1645-1745hrs)

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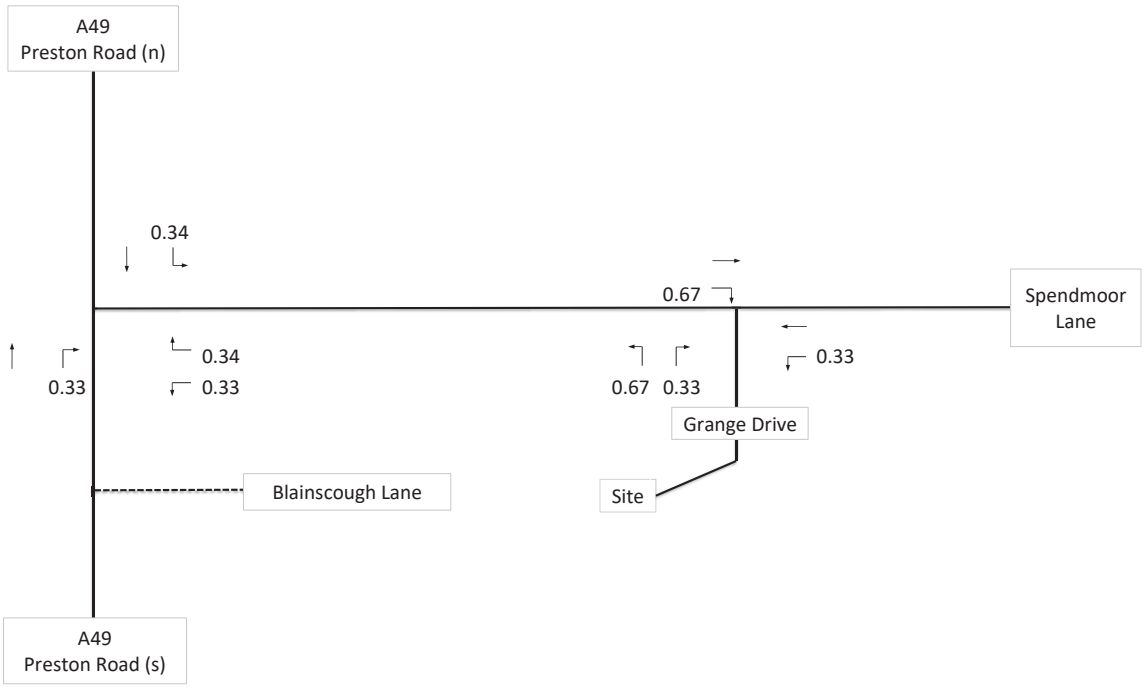

Figure 5 Trip Distribution - AM Peak (0800-0900hrs)

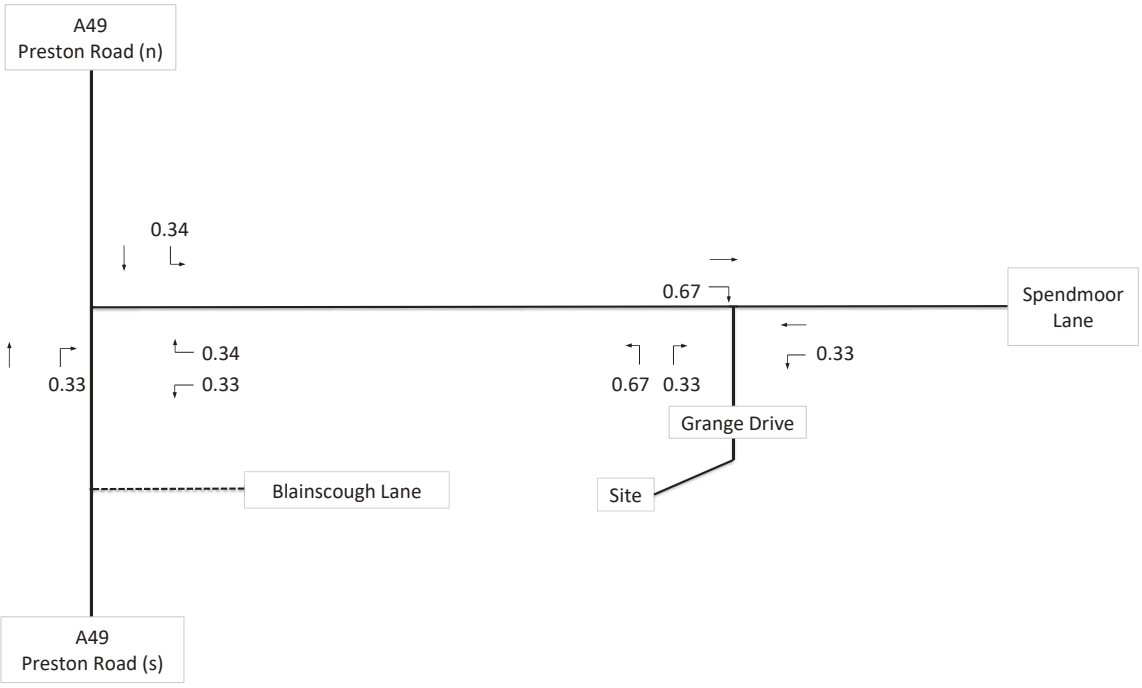

Figure 6 Trip Distribution - PM Peak (1645-1745hrs)

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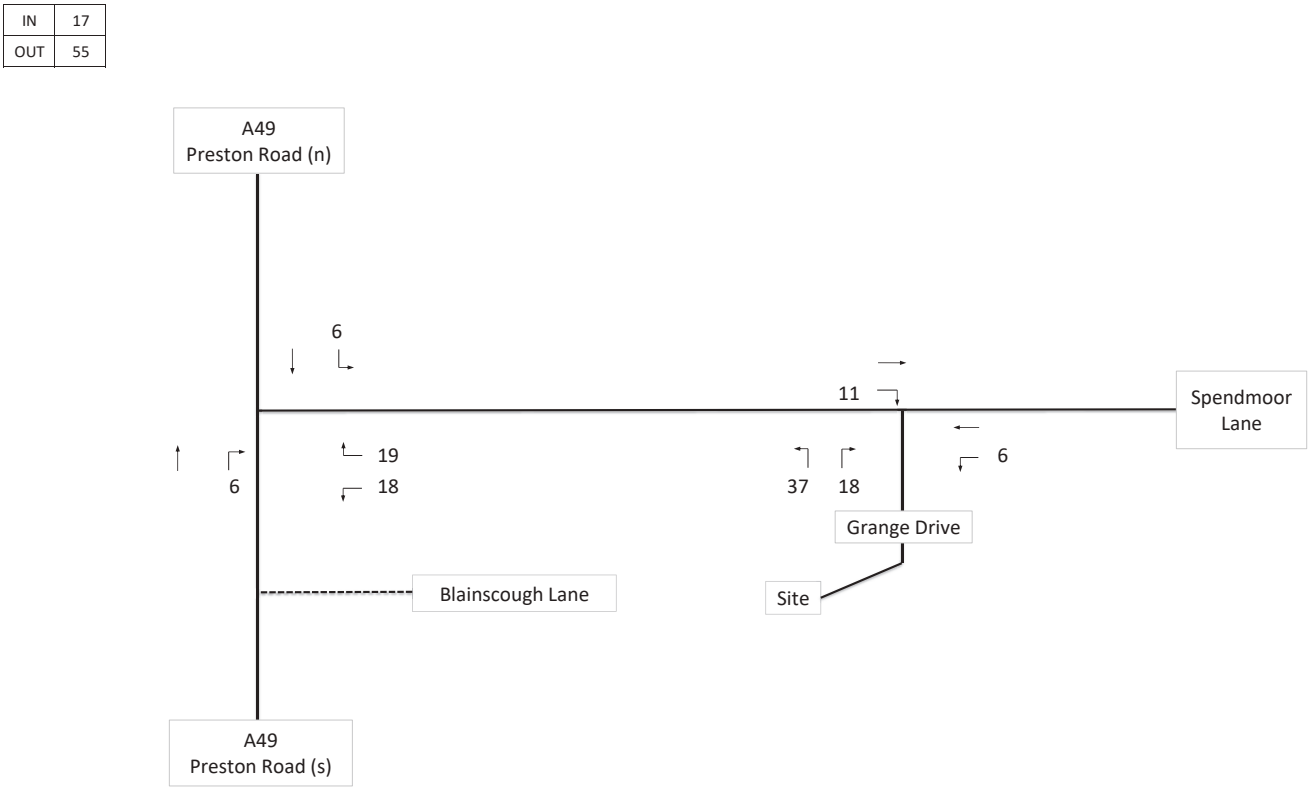

Figure 7 Development Trips - AM Peak (0800-0900hrs)

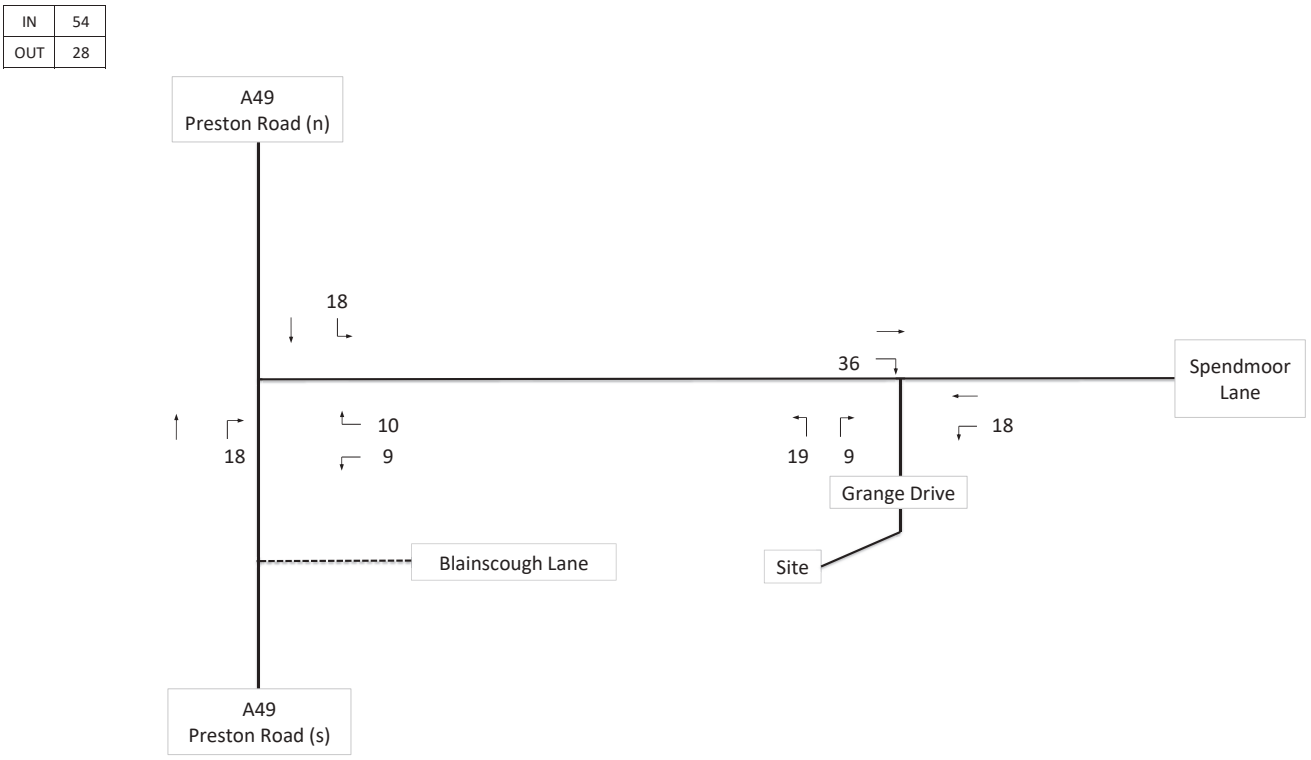

Figure 8 Development Trips - PM Peak (1645-1745hrs)

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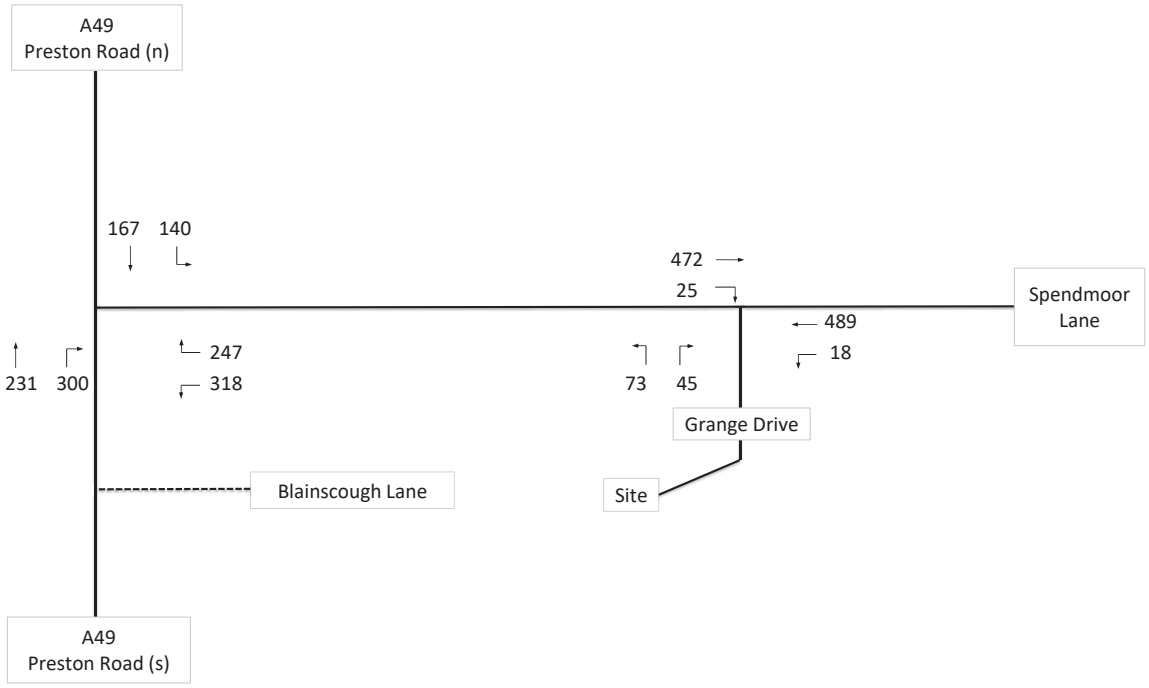

Figure 9 2026 Assessment Flows - AM Peak (0800-0900hrs)

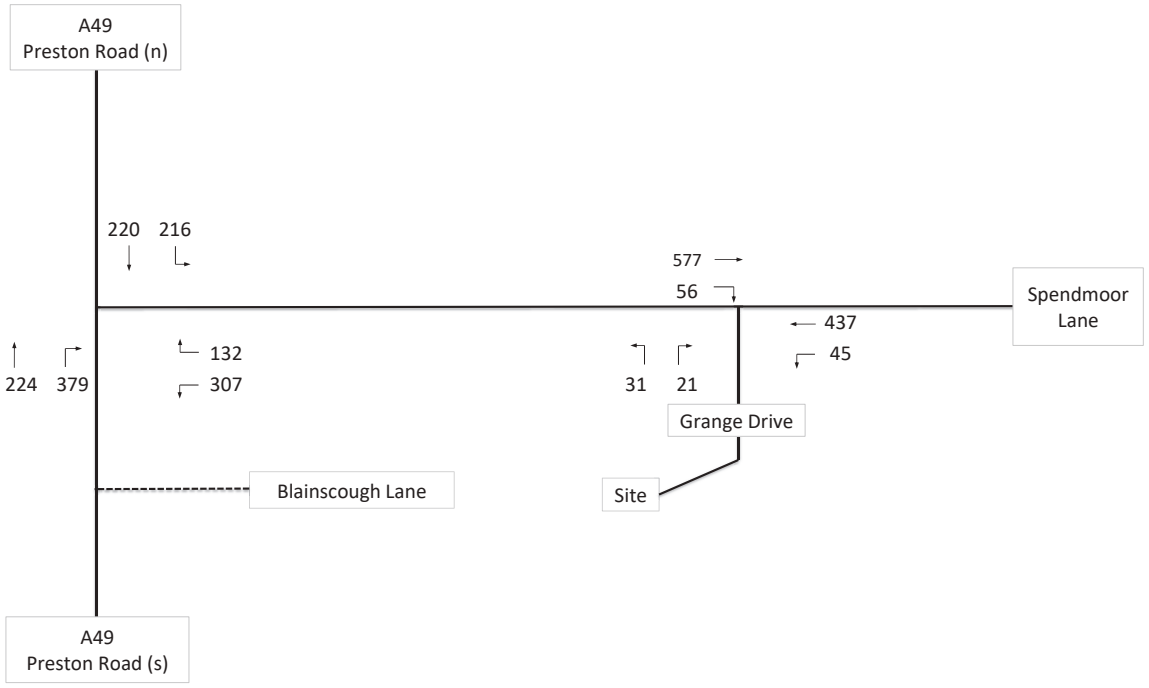

Figure 10 2026 Assessment Flows - PM Peak (1645-1745hrs)

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PLANS

CLIENT:

LEA HOUGH AND CO

DRAWING TITLE:

BLAINSCOUGH LANE, COPPULL
SITE LOCATION

DRAWN	DATE	CHECKED	DATE	SCALES
LG	09.12.20	PJW	09.12.20	NTS @ A4

Croft Transport Planning & Design
340 Deansgate
Manchester
M3 4LY

Email: info@croftts.co.uk
Tel: 0161 837 7380
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER: 2385-01

REVISION: -

Eddisons | Incorporating Croft

Z:\projects\2385 Blainscough Hall, Coppull\GIS\Workspaces\2385-01.dwg

N
Preston Road
Manor Way
Grange Drive
ECOLOGICAL AREA
Blainscough Lane
Tanyard Brook
Industrial Estate
Blainscough Hall

NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY. THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- WALKING ROUTE TO BUS STOP (325 METRES)
- WALKING ROUTE TO COPPULL PRIMARY SCHOOL AND CHILDREN'S CENTRE (781 METRES)
- WALKING ROUTE TO COPPULL OFF-LICENSE AND NEWS (419 METRES)
- WALKING ROUTE TO ST OSWALD'S CATHOLIC PRIMARY SCHOOL (416 METRES)
- WALKING ROUTE TO COPPULL LIBRARY (726 METRES)
- WALKING ROUTE TO BUS STOPS ALONG A49 PRESTON ROAD (694METRES)

REV	DETAILS	DRAWN	CHECKED	DATE
-	-	-	-	-

CLIENT:

LEA HOUGH

PROJECT:

BLAINSCOUGH HALL, COPPULL

DRAWING TITLE:

EXISTING WALKING ROUTE PLAN

SCALES:

1:1250 @ A1

DRAWN:	CHECKED:	DATE:
GM	MR	MAY 21

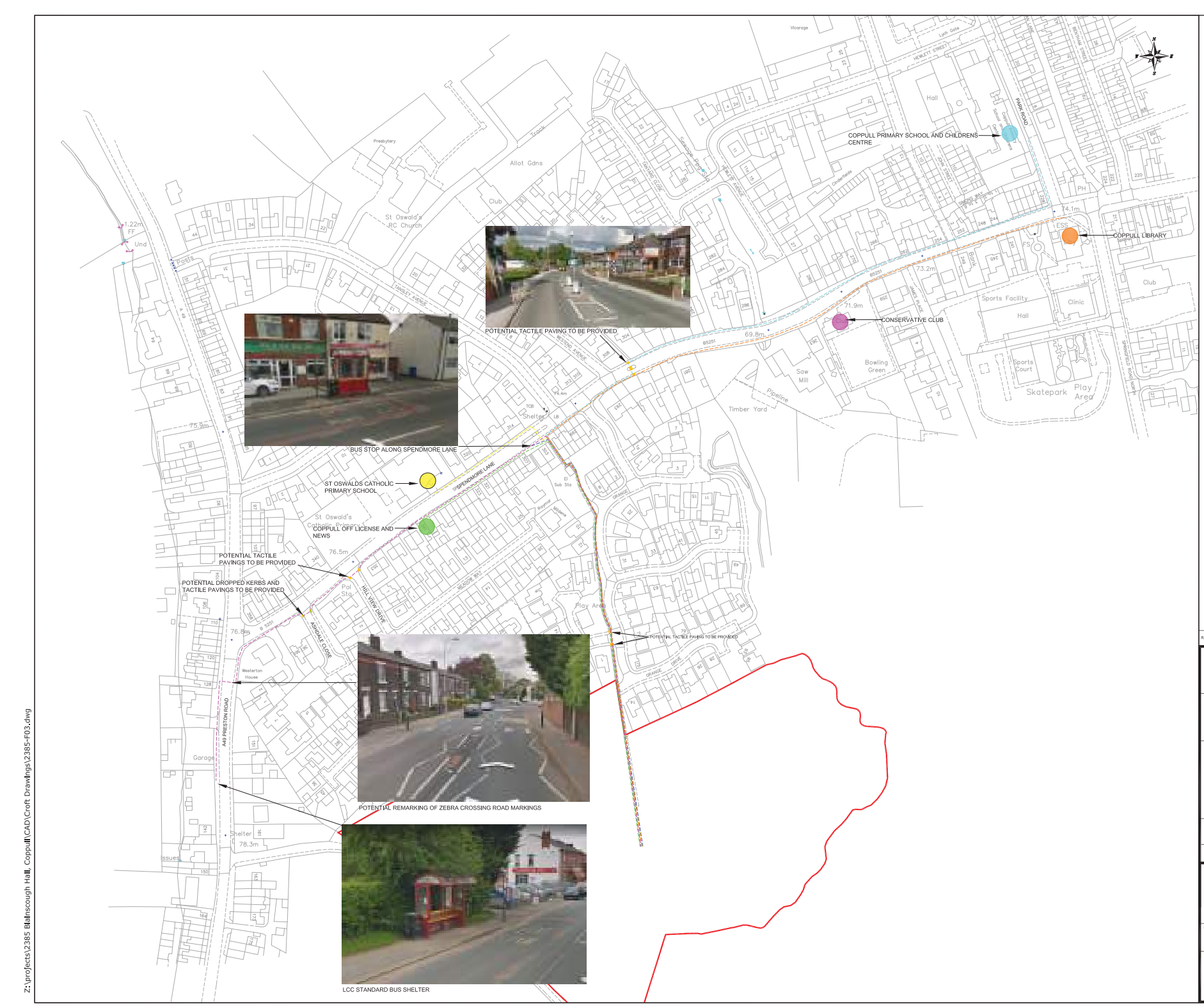
Croft Transport Planning & Design
340 Deansgate
Manchester
M3 4LY

Email: Info@croftts.co.uk
Tel: 0161 837 7380
Web: www.eddisons.com/services/transport-planning

DRAWING NUMBER:	REVISION:
2385-F02	-

Eddisons incorporating Croft

Z:\projects\2385 Blainscough Hall, Coppull\CAD\Croft Drawings\2385-F02.dwg



NOTES

THIS IS NOT A CONSTRUCTION DRAWING AND IS FOR INDICATIVE PURPOSES ONLY. THE DRAWING WILL BE SUBJECT TO CHANGE FOLLOWING LOCAL AUTHORITY REVIEW AND CONFIRMATION OF PUBLIC HIGHWAY AND THIRD PARTY LAND BOUNDARIES.

- INDICATIVE SITE BOUNDARY
- WALKING ROUTE TO BUS STOP (325 METRES)
- WALKING ROUTE TO COPPULL PRIMARY SCHOOL AND CHILDREN'S CENTRE (781 METRES)
- WALKING ROUTE TO COPPULL OFF-LICENSE AND NEWS (419 METRES)
- WALKING ROUTE TO ST OSWALD'S CATHOLIC PRIMARY SCHOOL (416 METRES)
- WALKING ROUTE TO COPPULL LIBRARY (726 METRES)
- WALKING ROUTE TO BUS STOPS ALONG A49 PRESTON ROAD (694METRES)

REV	DETAILS	DRAWN	CHECKED	DATE
-	-	-	-	-

CLIENT:

LEA HOUGH

PROJECT:

BLAINSCOUGH HALL, COPPULL

DRAWING TITLE:

POTENTIAL IMPROVEMENTS TO EXISTING WALKING ROUTES

SCALES: 1:1250 @ A1

DRAWN:	CHECKED:	DATE:
GM	MR	MAY 21

Croft Transport Planning & Design
340 Deansgate
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DRAWING NUMBER: 2385-F03

REVISION: -

Eddisons Incorporating Croft

Z:\projects\2385 Blainscough Hall, Coppull\CAD\Croft Drawings\2385-F03.dwg

APPENDICES

APPENDIX 1

Committee Addendum

COMMITTEE REPORT		
REPORT OF	**MEETING**	**DATE**
Chief Planning Officer	Planning Committee	Date: 12 April 2021

ADDENDUM

ITEM 3f - *20/01193/OUTMAJ - Land Adjacent Blainscough Hall, Blainscough Lane, Coppull*

The recommendation remains as per the original report

The Environment Agency:
Have confirmed that they have received consultation requests from Chorley Borough Council for the [six] proposals on Safeguarded Land.

With regards to these sites, they are not planning any works or undertaking any appraisals that could conflict with these. They are aware of flooding in the vicinity of Tincklers Lane from Syd Brook but they would rely on Lancashire County Council (Lead Local Flood Authority) to advise on this development as it is outside the scope of development proposals the Environment Agency is consulted on as a statutory consultee.

They state they have also looked through the comments from the drainage engineer and have no comments.

The Environment Agency is not resourced to comment on surface water drainage, sewer flooding and flooding from ordinary watercourses as these are outside our remit as a statutory consultee.

Lancashire County Council Highways

I refer to the above planning application and would like to thank you for the opportunity to provide comments. Lancashire County Council (LCC) as the Local Highway Authority (LHA) is responsible for providing and maintaining a safe and reliable highway network. With this in mind, the present and proposed highway systems have been considered and areas of concern that potentially could cause problems for the public, cyclists, public transport, motorists and other vehicles in and around the area have been identified.

LCC embraces appropriate development within Lancashire in line with local and national policies / frameworks and that which is emerging. This involves working closely with planning authorities, in this case officers of Chorley Council, developers and their representatives. This approach supports the delivery of high quality, sustainable development and an appropriate scale of development that can be accommodated both locally and strategically.

As submitted LCC CANNOT support this development, however, should the developer provide further analysis and where appropriate propose mitigation measures then this view could change.

The development proposal is in outline form, save for access, for 123 dwelling.

Vehicular access to the development is proposed from the existing adopted highway network by extending and modifying Grange Drive adjacent to number 14. The site currently has field gate accesses to Blainscough Lane, which is a privately maintained highway the carries PROW FP37. PROWs FP34 and FP35 run through the development site. It is not clear from the plans whether or not pedestrian access is proposed between the site and Blainscough Lane.

The developer has produced a Transport Assessment (TA) and Framework Travel Plan (FTP) in support of their proposal.

The TA concludes that the impact of the development on the local highway network should be acceptable to LCC as the Highway Authority.

There are elements of the TA which are not agreed and are as follows:

- Traffic Generation: The trip rate whilst derived from the TRICS database appear to be low. LCC encourage developers to adopt the trip rate used is northwest Preston when dealing with developments in the central Lancashire region.
- Junction Assessment: No capacity assessment has been undertaken and the TA appear to rely on observations of little queuing to conclude that highway capacity is not an issue. No future years assessment has been undertaken.
- Road Safety Analysis: The review of collision data does not cover the extent of the local highway network that LCC considers necessary. The TA includes "crashmap" data from 2015 – 2019, as 2020 data is now available this should be reviewed.

In assessing the development the TA looks at distances to amenities, however, this is only one element of why a particular route for walking and cycling may be used. The quality of that route is also and important factor and as such the provision of dropped kerbs and crossing points and desire lines need to be taken into consideration.

I terms of public transport the site is close to Spendmore Lane and Preston Road where the 362 service operates with a 20minute frequency. Whilst access to the bus stops on Spendmore Lane would be via a safe well lit route the potential access to the stops on Preston Road would be via Balinascough Lane which is unlit and without footways.

Spendmore Lane would be used by all vehicular traffic to the development and the vast majority of pedestrians, as such it is essential that this route is seen to be safe for all road users. From Preston Road to Grange Drive (approximately 300m) there are 4 recorded injury accidents (all slight) in a five year period. From Grange Drive eastwards along Spendmore Lane the road safety record is poorer with 5 injury accidents (3 severe and 2 slight) within 500m of Grange Drive.

The FTP will require additional work before it can be agreed. However, as the application is in outline form the statement of intent it provides is considered sufficient at this stage.

Summary.

The TA requires updating with;

1. Agreement on appropriate trip rates
2. Junction capacity assessment for Preston Road / Spendmore Lane and Spendmore Lane / Grange Drive, to include further years and committed development.
3. Review of road safety on Spendmore Lane and mitigation scheme.
4. Review of walking routes and improvements.
5. Access to Blainscough Lane and pedestrian improvements.

Conclusion.

As submitted LCC cannot support this proposal as based on the information provided there is insufficient evidence to show that the development will not have an unacceptable impact on highway safety.

LCC are willing to work with the developer, their Transport Consultants and Chorley Planning Officers to see if the issues highlight can be resolved.

Reasons for refusal

The consultation response received from Lancashire County Council Highways objects to the proposed development and therefore it is recommended that a further reason for refusal is added as follows:

The application fails to demonstrate sufficient evidence to show that the development will not have an unacceptable impact on highway safety. The proposal is, therefore, contrary to policy BNE1 (d) of the Chorley Local Plan 2012 - 2026.

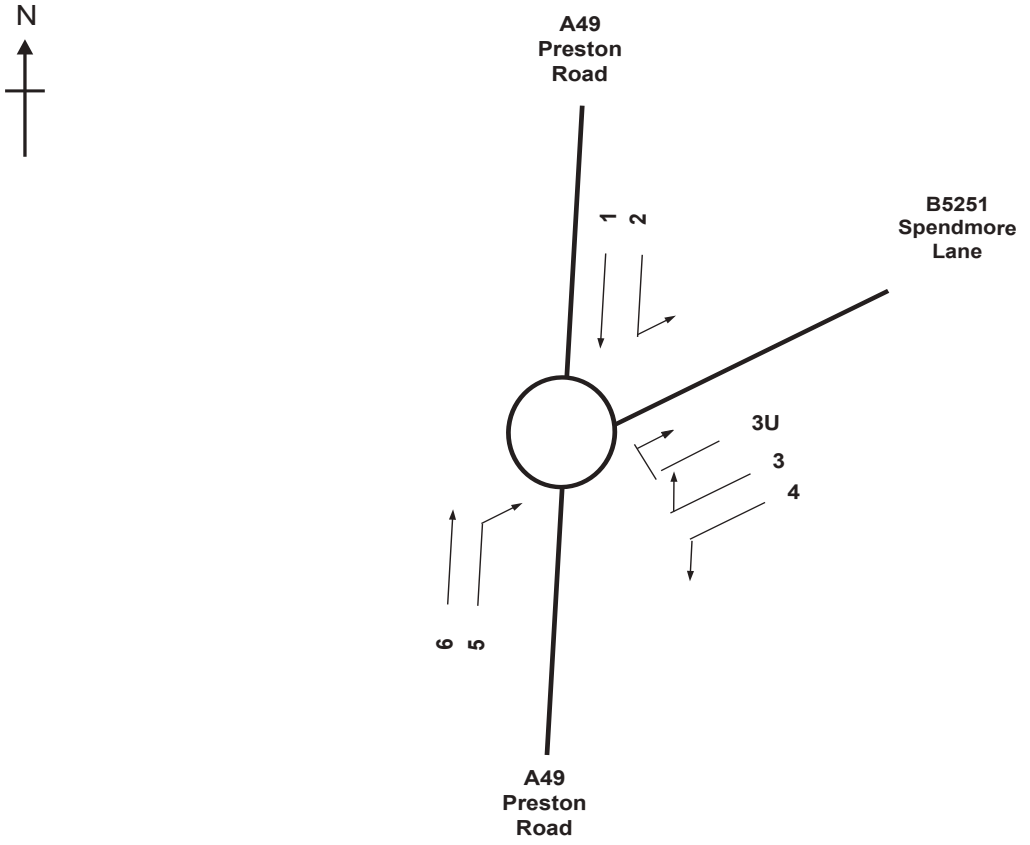
APPENDIX 2

Traffic Survey Data

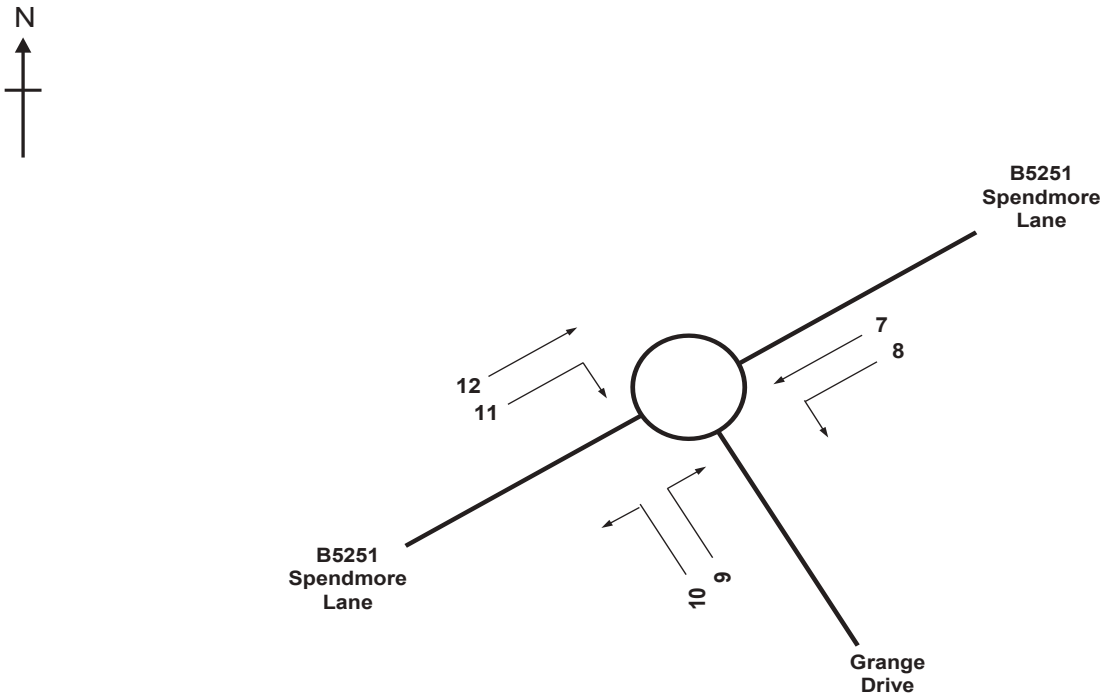
SURVEY CONTROL

Client:	Eddisons
Client Contact:	Marty Rae
Survey Location:	Coppull
Date(s) of Survey:	Wednesday 5th May 2021
Notes:	
On Site Supervisor:	Neil Harley
Data Checking:	David Cheng
Survey Reference:	21.005 Coppull
Status:	Final
Date of Issue:	6th May 2021

JUNCTION 1



JUNCTION 2



DRAWING TITLE: **TRAFFIC MOVEMENT REFERENCE**			
JOB TITLE: **21.005 COPPULL**			
DRAWN BY: DC	DATE: MAY 2021	SCALE: NTS	REF: FIGURE 1

Transport Data Specialists Ltd
W: www.transportds.co.uk
E: enquiries@transportds.co.uk
T: 0777 625 2475 T: 0794 007 1260

Time Beginning	A49 Preston Road/B5251 Spendmore Lane - Wednesday 5th May 2021													
	1		2		3U		3		4		5		6	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0730	45	4	23	1	0	0	44	1	77	4	53	2	63	1
0745	47	1	24	1	1	0	43	1	59	3	69	4	59	3
0800	34	0	37	2	2	0	45	1	76	2	69	5	56	1
0815	35	1	26	1	2	0	37	5	64	4	66	1	49	6
0830	43	3	28	0	4	0	40	0	69	1	59	3	40	3
0845	37	1	29	1	18	0	53	2	58	2	64	2	45	5
0900	48	1	37	1	2	0	28	1	48	3	73	7	46	4
0915	42	1	27	1	0	0	28	0	53	3	53	1	42	1
Time Beginning	A49 Preston Road/B5251 Spendmore Lane - Wednesday 5th May 2021													
	1		2		3U		3		4		5		6	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	53	3	37	2	3	0	28	1	65	3	63	5	57	1
1645	54	3	39	1	1	0	27	0	63	2	86	4	59	2
1700	35	4	50	0	1	0	27	0	67	1	82	3	51	1
1715	58	1	40	1	0	0	28	0	72	2	73	4	40	5
1730	47	0	49	3	0	0	33	0	72	0	75	3	47	0
1745	44	1	44	1	0	0	25	0	61	1	71	7	40	3
1800	47	1	48	0	0	0	24	0	48	0	70	3	31	0
1815	48	1	36	0	0	0	27	0	46	1	60	0	29	0

signal surveys

Time Beginning	B5251 Spendmore Lane/Grange Lane - Wednesday 5th May 2021											
	7		8		9		10		11		12	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
0730	121	5	1	0	4	0	2	0	1	0	77	3
0745	90	5	2	0	9	0	5	0	1	0	97	5
0800	108	4	3	0	6	0	10	0	1	0	108	7
0815	93	7	2	0	6	0	9	0	1	0	98	3
0830	112	2	2	0	11	0	11	0	5	0	96	4
0845	118	4	5	0	3	0	4	0	6	0	113	3
0900	87	6	4	0	3	0	2	0	1	0	107	7
0915	61	2	2	0	1	0	2	0	4	0	82	4

Time Beginning	B5251 Spendmore Lane/Grange Lane - Wednesday 5th May 2021											
	7		8		9		10		11		12	
	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV	LV	HV
1630	95	6	6	0	3	0	2	0	4	0	102	6
1645	100	2	8	0	4	0	4	0	1	0	121	6
1700	97	1	8	0	2	0	4	0	9	0	138	3
1715	108	2	6	0	0	0	1	0	4	0	131	4
1730	101	0	4	0	5	0	3	0	5	0	126	4
1745	95	1	11	0	4	0	4	0	5	0	120	9
1800	79	0	4	0	3	0	1	0	3	0	106	3
1815	72	2	11	0	3	0	4	0	3	0	101	0

APPENDIX 3

ARCADY Output for Spendmore Lane/Grange Drive

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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For sales and distribution information, program advice and maintenance, contact TRL:
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk

The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

Filename: Spendmore Lane_Grange Drive Mini Roundabout.j9
Path: Z:\projects\2385 Blainscough Hall, Coppull\Arcady
Report generation date: 12/05/2021 09:27:28

»2026 Base Flows, AM
»2026 Base Flows, PM
»2026 Assessment Flows, AM
»2026 Assessment Flows , PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2026 Base Flows							
Arm 1	1.3	8.91	0.57	A	2.2	12.30	0.69	B
Arm 2	1.4	9.22	0.59	A	1.2	8.40	0.54	A
Arm 3	0.2	9.71	0.16	A	0.1	8.07	0.06	A
	2026 Assessment Flows							
Arm 1	1.4	9.49	0.59	A	2.7	14.56	0.74	B
Arm 2	1.6	10.31	0.62	B	1.4	9.34	0.58	A
Arm 3	0.4	11.60	0.30	B	0.1	8.64	0.12	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Spendmore Lane/ Grange Drive Mini Roundabout
Location	Coppull
Site number	2385
Date	11/05/2021
Version	
Status	(new file)
Identifier	George Monks
Client	
Jobnumber	2385
Enumerator	EDD\George.Monks
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 Assessment Flows	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Assessment Flows	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Base Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 94% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	9.10	A

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	B5251 Spendmore Lane (E)	
2	Grange Drive	
3	B5251 Spendmore Lane (W)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.80	3.40	3.40	0.0	15.00	14.20	0.0	
2	3.00	2.70	3.00	0.7	8.70	5.80	0.0	
3	3.00	3.00	3.00	0.0	5.00	2.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.622	958
2	0.584	952
3	0.590	758

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	486	100.000
2		ONE HOUR	✓	502	100.000
3		ONE HOUR	✓	63	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	472	14
	2	489	0	13
	3	36	27	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.57	8.91	1.3	A	446	669
2	0.59	9.22	1.4	A	461	691
3	0.16	9.71	0.2	A	58	87

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	366	91	20	945	0.387	363	392	0.0	0.6	6.165	A
2	378	94	10	946	0.400	375	373	0.0	0.7	6.281	A
3	47	12	366	542	0.087	47	20	0.0	0.1	7.267	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	437	109	24	942	0.464	436	471	0.6	0.9	7.095	A
2	451	113	13	945	0.478	450	448	0.7	0.9	7.268	A
3	57	14	439	499	0.113	57	24	0.1	0.1	8.133	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	535	134	30	939	0.570	533	576	0.9	1.3	8.832	A
2	553	138	15	943	0.586	551	548	0.9	1.4	9.132	A
3	69	17	537	441	0.157	69	30	0.1	0.2	9.667	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	535	134	30	939	0.570	535	578	1.3	1.3	8.908	A
2	553	138	15	943	0.586	553	549	1.4	1.4	9.219	A
3	69	17	538	440	0.158	69	30	0.2	0.2	9.706	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	437	109	24	942	0.464	439	474	1.3	0.9	7.173	A
2	451	113	13	945	0.478	453	450	1.4	0.9	7.353	A
3	57	14	441	497	0.114	57	24	0.2	0.1	8.175	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	366	91	20	945	0.387	367	396	0.9	0.6	6.238	A
2	378	94	11	946	0.400	379	377	0.9	0.7	6.362	A
3	47	12	369	540	0.088	48	20	0.1	0.1	7.313	A

2026 Base Flows, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 97% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	10.54	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	597	100.000
2		ONE HOUR	✓	464	100.000
3		ONE HOUR	✓	25	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	577	20
	2	437	0	27
	3	13	12	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.69	12.30	2.2	B	548	822
2	0.54	8.40	1.2	A	426	639
3	0.06	8.07	0.1	A	23	34

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	449	112	9	952	0.472	446	337	0.0	0.9	7.068	A
2	349	87	15	943	0.370	347	440	0.0	0.6	6.016	A
3	19	5	327	565	0.033	19	35	0.0	0.0	6.590	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	537	134	11	951	0.564	535	404	0.9	1.3	8.628	A
2	417	104	18	941	0.443	416	528	0.6	0.8	6.843	A
3	22	6	392	527	0.043	22	42	0.0	0.0	7.144	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	657	164	13	949	0.692	654	494	1.3	2.2	12.032	B
2	511	128	22	939	0.544	509	645	0.8	1.2	8.345	A
3	28	7	480	475	0.058	27	52	0.0	0.1	8.050	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	657	164	13	949	0.692	657	495	2.2	2.2	12.302	B
2	511	128	22	939	0.544	511	648	1.2	1.2	8.403	A
3	28	7	481	474	0.058	28	52	0.1	0.1	8.066	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	537	134	11	951	0.564	540	406	2.2	1.3	8.843	A
2	417	104	18	941	0.443	419	533	1.2	0.8	6.908	A
3	22	6	394	525	0.043	23	42	0.1	0.0	7.167	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	449	112	9	952	0.472	451	340	1.3	0.9	7.212	A
2	349	87	15	943	0.370	350	445	0.8	0.6	6.082	A
3	19	5	330	563	0.033	19	35	0.0	0.0	6.618	A

2026 Assessment Flows, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 89% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	10.08	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Assessment Flows	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	497	100.000
2		ONE HOUR	✓	507	100.000
3		ONE HOUR	✓	118	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	472	25
	2	489	0	18
	3	73	0	45

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.59	9.49	1.4	A	456	684
2	0.62	10.31	1.6	B	465	698
3	0.30	11.60	0.4	B	108	162

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	374	94	34	937	0.399	372	420	0.0	0.7	6.348	A
2	382	95	52	921	0.414	379	353	0.0	0.7	6.604	A
3	89	22	365	542	0.164	88	66	0.0	0.2	7.913	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	112	40	932	0.479	446	504	0.7	0.9	7.390	A
2	456	114	63	915	0.498	455	423	0.7	1.0	7.796	A
3	106	27	439	499	0.213	106	79	0.2	0.3	9.146	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	49	927	0.590	545	616	0.9	1.4	9.391	A
2	558	140	77	907	0.615	556	518	1.0	1.6	10.180	B
3	130	32	536	442	0.294	129	96	0.3	0.4	11.510	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	547	137	50	927	0.590	547	619	1.4	1.4	9.489	A
2	558	140	77	907	0.615	558	520	1.6	1.6	10.314	B
3	130	32	538	440	0.295	130	97	0.4	0.4	11.598	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	447	112	41	932	0.479	449	508	1.4	0.9	7.485	A
2	456	114	63	915	0.498	458	426	1.6	1.0	7.918	A
3	106	27	442	497	0.213	107	80	0.4	0.3	9.230	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	374	94	34	936	0.400	375	424	0.9	0.7	6.432	A
2	382	95	53	921	0.414	383	356	1.0	0.7	6.705	A
3	89	22	369	540	0.165	89	66	0.3	0.2	7.991	A

2026 Assessment Flows , PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 95% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	12.14	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Assessment Flows	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	633	100.000
2		ONE HOUR	✓	482	100.000
3		ONE HOUR	✓	52	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	577	56
	2	437	0	45
	3	31	21	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.74	14.56	2.7	B	581	871
2	0.58	9.34	1.4	A	442	663
3	0.12	8.64	0.1	A	48	72

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	16	948	0.503	473	350	0.0	1.0	7.516	A
2	363	91	42	928	0.391	360	446	0.0	0.6	6.320	A
3	39	10	327	565	0.069	39	75	0.0	0.1	6.841	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	569	142	19	946	0.602	567	420	1.0	1.5	9.458	A
2	433	108	50	923	0.470	432	536	0.6	0.9	7.327	A
3	47	12	392	527	0.089	47	91	0.1	0.1	7.504	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	697	174	23	943	0.739	692	513	1.5	2.7	14.064	B
2	531	133	61	916	0.579	529	654	0.9	1.3	9.247	A
3	57	14	479	475	0.121	57	111	0.1	0.1	8.616	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	697	174	23	943	0.739	697	515	2.7	2.7	14.559	B
2	531	133	62	916	0.579	531	658	1.3	1.4	9.338	A
3	57	14	481	474	0.121	57	111	0.1	0.1	8.641	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	569	142	19	946	0.602	574	422	2.7	1.5	9.803	A
2	433	108	51	922	0.470	435	542	1.4	0.9	7.420	A
3	47	12	395	525	0.089	47	91	0.1	0.1	7.536	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	16	948	0.503	479	353	1.5	1.0	7.709	A
2	363	91	42	927	0.391	364	452	0.9	0.7	6.401	A
3	39	10	330	563	0.070	39	76	0.1	0.1	6.876	A

APPENDIX 4

ARCADY Output for A49 Preston Road/Spendmore Lane

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Preston Road_Spendmore Lane Mini Roundabout.j9
Path: Z:\projects\2385 Blainscough Hall, Coppull\Arcady
Report generation date: 12/05/2021 09:16:39

»2026 Base Flows, AM
»2026 Base Flows, PM
»2026 Assessment Flows, AM
»2026 Assessment Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2026 Base Flows								
Arm 1	0.9	5.57	0.47	A	0.8	4.76	0.46	A
Arm 2	0.8	9.25	0.46	A	2.1	16.50	0.68	C
Arm 3	2.7	17.32	0.74	C	1.6	12.54	0.62	B
2026 Assessment Flows								
Arm 1	0.8	5.20	0.46	A	0.9	4.94	0.48	A
Arm 2	0.9	9.48	0.47	A	2.5	19.39	0.72	C
Arm 3	3.6	21.41	0.79	C	1.8	13.46	0.64	B

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Preston Road/Spendmore Lane
Location	Coppull
Site number	2385
Date	10/05/2021
Version	
Status	(new file)
Identifier	George Monks
Client	
Jobnumber	
Enumerator	EDD\George.Monks
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9	5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓
D2	2026 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓
D3	2026 Assessment Flows	AM	ONE HOUR	08:00	09:30	15	✓
D4	2026 Assessment Flows	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2026 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	10.97	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	A49 Preston Road (S)	
2	A49 Preston Road (N)	
3	B5251 Spendmore Lane	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	3.50	3.40	3.40	0.0	20.00	20.00	0.0	
2	3.40	3.40	3.70	0.3	6.20	11.50	0.0	
3	3.30	3.30	5.50	7.8	11.10	7.60	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.909	1524
2	0.612	920
3	0.646	907

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026 Base Flows	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	525	100.000
2		ONE HOUR	✓	302	100.000
3		ONE HOUR	✓	528	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	231	294
	2	167	0	135
	3	228	300	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.47	5.57	0.9	A	482	723
2	0.46	9.25	0.8	A	277	416
3	0.74	17.32	2.7	C	485	727

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	395	99	224	1320	0.299	394	295	0.0	0.4	3.877	A
2	227	57	220	785	0.290	226	397	0.0	0.4	6.420	A
3	398	99	125	826	0.481	394	321	0.0	0.9	8.262	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	472	118	269	1280	0.369	471	354	0.4	0.6	4.454	A
2	271	68	264	758	0.358	271	476	0.4	0.6	7.376	A
3	475	119	150	810	0.586	473	385	0.9	1.4	10.617	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	327	1226	0.471	577	432	0.6	0.9	5.534	A
2	333	83	323	722	0.460	331	581	0.6	0.8	9.185	A
3	581	145	183	788	0.737	576	471	1.4	2.6	16.587	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	578	145	330	1224	0.472	578	435	0.9	0.9	5.574	A
2	333	83	324	722	0.461	332	584	0.8	0.8	9.247	A
3	581	145	184	788	0.738	581	472	2.6	2.7	17.319	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	472	118	273	1276	0.370	473	358	0.9	0.6	4.489	A
2	271	68	265	758	0.358	273	481	0.8	0.6	7.440	A
3	475	119	151	809	0.586	480	387	2.7	1.5	11.081	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	395	99	227	1318	0.300	396	299	0.6	0.4	3.908	A
2	227	57	222	784	0.290	228	401	0.6	0.4	6.481	A
3	398	99	126	825	0.482	400	324	1.5	0.9	8.498	A

2026 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	10.50	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026 Base Flows	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	585	100.000
2		ONE HOUR	✓	417	100.000
3		ONE HOUR	✓	421	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	224	361
	2	220	0	197
	3	298	123	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	4.76	0.8	A	537	805
2	0.68	16.50	2.1	C	383	574
3	0.62	12.54	1.6	B	386	579

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	440	110	92	1440	0.306	439	387	0.0	0.4	3.587	A
2	314	78	271	754	0.416	311	260	0.0	0.7	8.076	A
3	317	79	164	801	0.396	314	418	0.0	0.6	7.365	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	526	131	110	1424	0.369	525	464	0.4	0.6	4.004	A
2	375	94	324	721	0.520	373	311	0.7	1.1	10.302	B
3	378	95	197	779	0.486	377	501	0.6	0.9	8.927	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	644	161	135	1401	0.460	643	567	0.6	0.8	4.739	A
2	459	115	397	677	0.678	455	381	1.1	2.0	15.973	C
3	464	116	240	752	0.617	461	612	0.9	1.6	12.282	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	644	161	135	1401	0.460	644	570	0.8	0.8	4.756	A
2	459	115	397	677	0.679	459	382	2.0	2.1	16.496	C
3	464	116	242	750	0.618	463	614	1.6	1.6	12.544	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	526	131	111	1423	0.370	527	469	0.8	0.6	4.023	A
2	375	94	325	721	0.520	379	313	2.1	1.1	10.633	B
3	378	95	200	778	0.487	381	504	1.6	1.0	9.132	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	440	110	93	1439	0.306	441	392	0.6	0.4	3.609	A
2	314	78	272	753	0.417	315	262	1.1	0.7	8.252	A
3	317	79	166	799	0.397	318	421	1.0	0.7	7.504	A

2026 Assessment Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	12.66	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2026 Assessment Flows	AM	ONE HOUR	08:00	09:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	531	100.000
2		ONE HOUR	✓	307	100.000
3		ONE HOUR	✓	565	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	231	300
	2	167	0	140
	3	318	247	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.46	5.20	0.8	A	487	731
2	0.47	9.48	0.9	A	282	423
3	0.79	21.41	3.6	C	518	778

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	184	1356	0.295	398	362	0.0	0.4	3.751	A
2	231	58	225	782	0.295	229	357	0.0	0.4	6.493	A
3	425	106	125	826	0.515	421	330	0.0	1.0	8.804	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	221	1323	0.361	477	434	0.4	0.6	4.253	A
2	276	69	269	755	0.366	275	428	0.4	0.6	7.497	A
3	508	127	150	810	0.627	506	395	1.0	1.6	11.715	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	146	269	1279	0.457	584	529	0.6	0.8	5.166	A
2	338	85	330	718	0.471	337	523	0.6	0.9	9.411	A
3	622	156	183	788	0.789	615	483	1.6	3.4	19.973	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	585	146	272	1277	0.458	585	534	0.8	0.8	5.202	A
2	338	85	330	718	0.471	338	526	0.9	0.9	9.479	A
3	622	156	184	788	0.790	621	484	3.4	3.6	21.409	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	477	119	225	1319	0.362	478	441	0.8	0.6	4.290	A
2	276	69	270	754	0.366	277	433	0.9	0.6	7.564	A
3	508	127	151	809	0.628	515	397	3.6	1.7	12.523	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	400	100	187	1354	0.295	400	367	0.6	0.4	3.778	A
2	231	58	226	781	0.296	232	361	0.6	0.4	6.556	A
3	425	106	126	825	0.515	428	332	1.7	1.1	9.122	A

2026 Assessment Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	11.74	B

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2026 Assessment Flows	PM	ONE HOUR	17:00	18:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		ONE HOUR	✓	603	100.000
2		ONE HOUR	✓	436	100.000
3		ONE HOUR	✓	439	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	0	224	379
	2	220	0	216
	3	307	132	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1	0.48	4.94	0.9	A	553	830
2	0.72	19.39	2.5	C	400	600
3	0.64	13.46	1.8	B	403	604

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	113	99	1434	0.317	452	393	0.0	0.5	3.659	A
2	328	82	284	746	0.440	325	266	0.0	0.8	8.495	A
3	331	83	164	801	0.413	328	445	0.0	0.7	7.570	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	118	1416	0.383	541	472	0.5	0.6	4.112	A
2	392	98	340	712	0.551	390	319	0.8	1.2	11.145	B
3	395	99	197	779	0.506	393	534	0.7	1.0	9.296	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	664	166	144	1393	0.477	663	576	0.6	0.9	4.924	A
2	480	120	417	665	0.722	475	391	1.2	2.4	18.500	C
3	483	121	240	752	0.643	480	652	1.0	1.7	13.126	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	664	166	145	1392	0.477	664	580	0.9	0.9	4.945	A
2	480	120	417	664	0.723	480	392	2.4	2.5	19.394	C
3	483	121	242	750	0.644	483	655	1.7	1.8	13.457	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	542	136	120	1415	0.383	543	478	0.9	0.6	4.133	A
2	392	98	341	711	0.551	397	321	2.5	1.3	11.641	B
3	395	99	200	777	0.508	398	538	1.8	1.1	9.553	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	454	113	100	1433	0.317	455	399	0.6	0.5	3.683	A
2	328	82	286	745	0.441	330	269	1.3	0.8	8.715	A
3	331	83	167	799	0.414	332	449	1.1	0.7	7.728	A

APPENDIX 5

Personal Injury Accident Data

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Validated Data

Crash Date:	Wednesday, January 06, 2016	**Time of Crash:**	2:29:00 PM	**Crash Reference:**	**201604SC16024**

Highest Injury Severity:	Slight	**Road Number:**	B5251	**Number of Casualties:**	2
Highway Authority:	Lancashire			**Number of Vehicles:**	3
Local Authority:	Chorley Borough			**OS Grid Reference:**	356240 414090
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Using private drive or entrance				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	13	Female	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Front	Commuting to/from work	None	None
2	Car (excluding private hire)	10	Female	26 - 35	Vehicle is waiting to proceed normally but is held up	Back	Taking pupil to/from school	None	None
3	Car (excluding private hire)	10	Female	21 - 25	Vehicle is waiting to proceed normally but is held up	Back	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Female	26 - 35	Unknown or other	Unknown or other
3	2	Slight	Driver or rider	Female	21 - 25	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Saturday, July 09, 2016	**Time of Crash:**	4:45:00 PM	**Crash Reference:**	**201604SC16191**

Highest Injury Severity:	Slight	**Road Number:**	B5251	**Number of Casualties:**	1
Highway Authority:	Lancashire			**Number of Vehicles:**	2
Local Authority:	Chorley Borough			**OS Grid Reference:**	356190 414090
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	Zebra crossing				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	13	Male	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Pedal cycle	-1	Male	6 - 10	Vehicle is moving off	Nearside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
2	1	Slight	Driver or rider	Male	6 - 10	Unknown or other	Unknown or other

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No

Crash Date:	Monday, October 17, 2016	**Time of Crash:**	10:00:00 AM	**Crash Reference:**	**201604SC16273**

Highest Injury Severity:	Slight	**Road Number:**	A49	**Number of Casualties:**	1
Highway Authority:	Lancashire			**Number of Vehicles:**	2
Local Authority:	Chorley Borough			**OS Grid Reference:**	355540 413760
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Mini roundabout				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				

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No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	3	Female	46 - 55	Vehicle is in the act of turning right	Offside	Other	None	None
2	Van or goods vehicle 3.5 tonnes mgw and under	5	Male	26 - 35	Vehicle proceeding normally along the carriageway, not on a bend	Front	Journey as part of work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other

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Validated Data

Crash Date:	Friday, October 21, 2016	**Time of Crash:**	6:00:00 PM	**Crash Reference:**	**201604SC16284**

Highest Injury Severity:	Serious	**Road Number:**	B5251	**Number of Casualties:**	2
Highway Authority:	Lancashire			**Number of Vehicles:**	1
Local Authority:	Chorley Borough			**OS Grid Reference:**	356270 414110
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	T or staggered junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	8	Female	26 - 35	Vehicle is moving off	Nearside	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Pedestrian	Female	11 - 15	Unknown or other	Crossing from driver's nearside
1	2	Serious	Pedestrian	Female	11 - 15	Unknown or other	Crossing from driver's nearside

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Validated Data

Crash Date:	Tuesday, March 14, 2017	**Time of Crash:**	4:12:00 PM	**Crash Reference:**	**201704SC17053**

Highest Injury Severity:	Serious	**Road Number:**	B5251	**Number of Casualties:**	1
Highway Authority:	Lancashire			**Number of Vehicles:**	2
Local Authority:	Chorley Borough			**OS Grid Reference:**	356080 414070
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				

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Validated Data

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Pedal cycle	-1	Female	6 - 10	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
2	Car (excluding private hire)	19	Female	36 - 45	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Serious	Driver or rider	Female	6 - 10	Unknown or other	Unknown or other

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No

Crash Date:	Monday, November 13, 2017	**Time of Crash:**	8:25:00 AM	**Crash Reference:**	**201704SC17292**

Highest Injury Severity:	Slight	**Road Number:**	A49	**Number of Casualties:**	3
Highway Authority:	Lancashire			**Number of Vehicles:**	2
Local Authority:	Chorley Borough			**OS Grid Reference:**	355590 413770
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Roundabout				
Junction Pedestrian Crossing:	Zebra crossing				
Road Type:	Roundabout				
Junction Control:	Give way or uncontrolled				

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No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	5	Female	46 - 55	Vehicle is in the act of turning right	Offside	Taking pupil to/from school	None	None
2	Car (excluding private hire)	-1	Male	21 - 25	Vehicle is moving off	Nearside	Commuting to/from work	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	46 - 55	Unknown or other	Unknown or other
1	3	Slight	Vehicle or pillion passenger	Male	6 - 10	Unknown or other	Unknown or other
2	2	Slight	Driver or rider	Male	21 - 25	Unknown or other	Unknown or other

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No

Crash Date:	Monday, December 04, 2017	**Time of Crash:**	10:15:00 PM	**Crash Reference:**	**201704SC17297**

Highest Injury Severity:	Slight	**Road Number:**	A49	**Number of Casualties:**	1
Highway Authority:	Lancashire			**Number of Vehicles:**	5
Local Authority:	Chorley Borough			**OS Grid Reference:**	355540 413890
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Darkness: street lights present and lit				
Carriageway Hazards:	None				
Junction Detail:	Not at or within 20 metres of junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Not Applicable				

No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	8	Female	56 - 65	Vehicle proceeding normally along the carriageway, not on a bend	Front	Commuting to/from work	Parked vehicle	None
2	Car (excluding private hire)	5	Unknown	Unknown	Vehicle is parked in the carriageway	Back	Other	None	None
3	Car (excluding private hire)	9	Unknown	Unknown	Vehicle is parked in the carriageway	Back	Other	Parked vehicle	None
4	Car (excluding private hire)	10	Unknown	Unknown	Vehicle is parked in the carriageway	Back	Other	Parked vehicle	None
5	Car (excluding private hire)	5	Unknown	Unknown	Vehicle is parked in the carriageway	Back	Other	Parked vehicle	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	56 - 65	Unknown or other	Unknown or other

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No

Crash Date:	Tuesday, September 03, 2019	**Time of Crash:**	7:00:00 PM	**Crash Reference:**	**2019040874327**

Highest Injury Severity:	Slight	**Road Number:**	B5251	**Number of Casualties:**	4
Highway Authority:	Lancashire			**Number of Vehicles:**	3
Local Authority:	Chorley Borough			**OS Grid Reference:**	355629 413822
Weather Description:	Raining without high winds				
Road Surface Description:	Wet or Damp				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

No

Vehicles involved

Vehicle Ref	Vehicle Type	Vehicle Age	Driver Gender	Driver Age Band	Vehicle Maneouvre	First Point of Impact	Journey Purpose	Hit Object - On Carriageway	Hit Object - Off Carriageway
1	Car (excluding private hire)	5	Female	36 - 45	Vehicle is moving off	Front	Other	None	None
2	Car (excluding private hire)	4	Male	16 - 20	Vehicle proceeding normally along the carriageway, not on a bend	Front	Other	None	None
3	Good vehicles of unknown weight	-1	Unknown	Unknown	Vehicle is parked in the carriageway	Did not impact	Other	None	None

Casualties

Vehicle Ref	Casualty Ref	Injury Severity	Casualty Class	Gender	Age Band	Pedestrian Location	Pedestrian Movement
1	1	Slight	Driver or rider	Female	36 - 45	Unknown or other	Unknown or other
1	2	Slight	Vehicle or pillion passenger	Female	6 - 10	Unknown or other	Unknown or other
2	3	Slight	Driver or rider	Male	16 - 20	Unknown or other	Unknown or other
2	4	Slight	Vehicle or pillion passenger	Female	16 - 20	Unknown or other	Unknown or other

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Provisional Data does not include vehicle and casualty records

Crash Date:	Thursday, March 05, 2020	**Time of Crash:**	12:23:00 PM	**Crash Reference:**	**2020040936919**

Highest Injury Severity:	Serious	**Road Number:**	B5251	**Number of Casualties:**	1
Highway Authority:	Lancashire			**Number of Vehicles:**	2
Local Authority:	Chorley Borough			**OS Grid Reference:**	356166 414083
Weather Description:	Fine without high winds				
Road Surface Description:	Dry				
Speed Limit:	30				
Light Conditions:	Daylight: regardless of presence of streetlights				
Carriageway Hazards:	None				
Junction Detail:	Other junction				
Junction Pedestrian Crossing:	No physical crossing facility within 50 metres				
Road Type:	Single carriageway				
Junction Control:	Give way or uncontrolled				

For more information about the data please visit: *www.crashmap.co.uk/home/Faq*
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Provisional Data does not include vehicle and casualty records

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