

rappor



Units 2 and 6, Reading Retail Park, Reading

Threadneedle UK Property Authorised Investment Fund
Technical Note
March 2023





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1 Introduction

Brief

- 1.1 Rappor have been instructed by Threadneedle UK Property Authorised Investment Fund to prepare a Technical Note (TN) in support of a planning application concerning the proposed use of units 2 and 6 at Reading Retail Park, Reading, as a foodstore (Class E).
- 1.2 Planning permission is sought (ref: 221110) for the use of the existing Units 2 and 6 which currently operate on a non-food retail basis (comprising 2,492sq.m floor area) for a future foodstore, with a reduced floor area of 2,013sq.m.
- 1.3 Rappor previously produced a Transport Statement (TS) and Travel Plan (TP) in June 2022 in support of this application, which were reviewed by the Local Highway Authority (LHA) of Reading Borough Council (RBC), who subsequently provided consultee responses in November. A copy of the consultation response prepared by the LHA is provided in **Appendix A** for ease of reference.
- 1.4 A summary of the pertinent highways and transportation matters arising in the LHA response, which are to be addressed within the report, are summarised below:
 - a) Justification of trip attraction methodology;
 - b) Suitability of pedestrian footway provision within the wider retail park;
 - c) Suitability of parking provision within the site; and
 - d) Suitability of servicing and delivery arrangements within the site for the proposal and adjacent Wickes store.

Scope of Report

- 1.5 Considering the content of the consultee response above, this TN shall review / address the following highways and transportation matters to demonstrate the suitability of the development proposal:
 - a) Review of development trip classification / attraction, junction capacity assessments, and review of traffic surveys to determine net trip impact on the local highway network;
 - b) Clarification of improvements to pedestrian infrastructure within reading Retail Park;
 - c) Commitment to proposed parking reconfiguration; and
 - d) Confirmation of servicing / delivery arrangements for development proposal and adjacent Wickes store.

2 Technical Response

Development Trips Classification / Attraction and Assessment of Impact on Highway Network

LHA Consultee Commentary

- 2.1 The LHA provided the following statement concerning the development trip classification and trip impact assessment:

“Insufficient information has been submitted with the planning application to enable the highways, traffic and transportation implications of the proposed development to be fully assessed. From the information submitted, it is considered that the additional traffic likely to be generated by the proposal would adversely affect the safety and flow of users of the existing road network within Reading, contrary to Policy TR3 of the Reading Borough Local Plan.”

- 2.2 Specifically, the LHA have queried the methodology behind the classification of various trip types (linked, pass-by etc) and therefore require additional justification to inform the vehicle trip impact assessment of the development proposal on the local highway network, with special regard to the adjacent roundabout junction.

Rappor Technical Response

- 2.3 In response to the above, a revised trip impact assessment has been undertaken which utilises elements contained within the TRICS Research Report 14/1 methodology and customer trip type survey data concerning an existing discount retailer to justify a proportion of ‘linked’ trips to the application site.
- 2.4 To determine the impact of the forecast trips on the local highway network, junction capacity assessments of the Reading Retail Park Access / Oxford Road (A329) priority junction and the adjacent Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction have been undertaken for a range of periods / assessment scenarios. These have been informed by Manual Classification Counts (MCC) undertaken across key assessment periods, which are detailed further later in this section.

TRICS Research Report 14/1 Methodology

- 2.5 Section 11 of TRICS Research Report 14/1 provides a methodology to determine the extent of which a site may be associated with linked trips – whether they be ‘pass-by’ or ‘diverted’ in nature. As stated, elements of this methodology shall be used to ascertain a likely degree of trips associated with the development proposal, which already occur on the local highway network and thus must be considered when taking into account the actual ‘net trip impact’.
- 2.6 The research states that the site of the proposal must be defined in relation to its location, local facilities, GFA, and proximity to infrastructure (i.e. public transport nodes, schools, employment destinations, other commercial areas etc.). The application of these influencing characteristics is considered as follows:



- a) *Location* – the application site is situated in an established commercial area which is not considered to be located in the town / city centre or ‘edge of town’ but instead an ‘intermediate location’, given it is surrounded by a mixture of commercial / retail offerings and residential development, as demonstrated in the previously submitted supporting TS. The research suggests that “as a store’s proximity to a town centre increases, the potential percentage of pass-by trips also increases”. Therefore, on this basis, the application site may be associated with a proportion of pass-by trips, given its ‘intermediate location’.
 - b) *Local facilities* – the application site benefits from being in proximity to a range of complimentary facilities which include a drive thru / eat-in restaurant (KFC) and homeware retailer - inclusive of a garden centre (B&M) within Reading Retail Park, in addition to a nearby post office (Norcot Post Office & Off Licence), petrol filling station (Shell), and Medical Centre / Pharmacy (Grovelands). The research suggests that “a higher number of facilities may produce a greater percentage of secondary trips.” Therefore, on this basis, the application site may be associated with a proportion of pass-by trips, given it benefits from being located in proximity to a range of facilities recognised as complimentary within the research.
 - c) *GFA* – as previously detailed, the proposal is c.2,013sq.m in floor area and features a reduction of c.480sq.m when compared to the existing configuration of the site. The research indicates a floor area threshold of 4,000sq.m; with stores featuring floor areas less than this likely to serve more as ‘convenience stores’ and “are more likely to produce pass-by trips” than those with larger floor areas. Therefore, on this basis, the application site may be associated with a proportion of pass-by trips, given the extent of proposed floor area.
 - d) *Infrastructure* – the application site benefits from being situated in proximity to ‘major infrastructure’ which include railway stations (i.e. Reading and Reading West), Ranikhet Academy and Wilson Primary School, employment / industrial development to the north / northwest, and a large amount of residential development to the east, south and west. It is accepted that sites in proximity to such infrastructure shall be associated with a proportion of diverted or pass-by trips before or after visiting such ‘major infrastructure’.
- 2.7 Taking into account the ‘intermediate location’ of the application site, the extent / range of recognised complimentary facilities, the proposed GFA - which is significantly below than 4,000sq.m threshold - and the location / range of ‘major infrastructure’, it is considered that a significant proportion of future trips associated with the development proposal shall already be occurring on the local highway network. Therefore, the principle of ‘linked’ trips to the application site must be accepted.
- Customer Trip Type Survey Data – Donor Site (February 2023)*
- 2.8 Rappor has recently commissioned a customer trip type survey at a donor site (i.e. a discount retail store) to ascertain a breakdown of trip types.
- 2.9 The survey was undertaken by Paul Castle Associates, an independent multimodal travel surveyor, on Thursday the 9th of February and Saturday the 11th of February 2023 between the hours of 08:00 and 20:00. The survey was carried out in the form of a face-to-face questionnaire and recorded 211 responses from car drivers.
- 2.10 The results of the survey are provided in **Appendix B**, whilst a summary of the trip types based on the customer responses is provided in **Table 2.1**.



Trip Type	Number of Responses	Trip Type %
New Trips (Primary)	55	26%
Diverted and / or Pass-By	19	9%
Linked Trips	133	65%
Total trips (Car Drivers)	211	100%

Table 2.1: Summary of car driver trip data from customer trip type survey (February 2023).

- 2.11 As indicated above, the survey states that 26% of all car drivers were primary and only visiting the discount retailer and thus may be classified as 'new' trips to the network. Whilst 9% of car drivers did not originally intend to visit the store and thus may be classified as undertaking a 'diverted' or 'pass-by' trip. Furthermore, the remaining 65% of car drivers either travelled from another destination or were about to undertake an onward journey and thus may be classified as undertaking a 'linked' trip.

Revised Forecast Trip Attraction Profile

- 2.12 The above customer trip type survey is considered to provide relevant, robust and applicable data to demonstrate that a proportion of new and pass-by and / or diverted trips (35%) shall be associated with the development proposal. Therefore, on this basis, a revised forecast trip attraction profile - which utilises the trip rates detailed in the consultee response, given their accepted suitability - is provided in **Table 2.2**.

Period	Trip Rates – Derived from Consultee Response			Revised Forecast Trip Attraction (35% of Total Trips)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Weekday AM Peak (08:00 to 09:00)	2.293	2.249	5.172	21	16	36*
Weekday PM Peak (17:00 to 18:00)	3.926	4.466	8.492	28	31	60*
Saturday Development Peak (12:00 to 13:00)	6.496	6.838	13.334	46	48	94

Table 2.2: Revised net trip impact (based on 26% of all trips being 'new' to the local highway network). *Note: summation subject to cumulative rounding.

- 2.13 As indicated in **Table 2.2**, the revised net trip impact shall result in the development proposal being associated with 36 two-way vehicle movements during the typical weekday AM peak period and 60 two-way vehicle movements during the typical weekday PM peak period. Whilst the proposal is anticipated to be associated with a total of 94 vehicle trips during the Saturday operational peak period.
- 2.14 Considering the nature of the local highway network, this is not envisaged to result in a significant impact on local highway safety or a severe cumulative impact on the operational of the adjacent network. However, in order to substantiate this assertion, further analysis shall be undertaken via junction capacity assessments.



Junction Capacity Assessments

- 2.15 In order to understand existing traffic conditions on the local highway network in the vicinity of the application site, traffic surveys were undertaken by Paul Castle Associates, an independent traffic surveyor, on Thursday the 19th of May 2022 from 07:00 to 10:00 and 16:00 to 19:00 and Saturday the 21st of May 2022 from 11:00 to 15:00.
- 2.16 The survey recorded vehicle movements at the Reading Retail Park Access / Oxford Road (A329) priority junction and Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction. The traffic survey data is provided in **Appendix C**.
- 2.17 In terms of distributing and assigning the forecast trip attraction of the development proposal (detailed in **Table 2.2**), the percentage of vehicle flows observed in the surveys referenced above have been used on a pro rata basis. This is a standard and accepted industry-approach and informs a robust assessment.
- 2.18 To forecast future traffic conditions on the local highway network, TEMPro (Version 7.2) has been interrogated with trip rates for the weekday AM and PM peak periods detailed below, in addition to a Saturday. Screenshots of the search criteria and outputs are provided in **Appendix D**.
- a) 2022 to 2025 Weekday AM Peak: 1.0291
 - b) 2022 to 2025 Weekday PM Peak: 1.0299
 - c) 2022 to 2025 Saturday All Day: 1.0324
- 2.19 In order to illustrate the forecast trip attraction within the context of the local highway network, Traffic Flow Diagrams (TFDs) have been produced for both junctions. The full TFD analysis is provided in **Appendix E**.
- 2.20 A summary of the assessment scenarios which account for the forecast trip attraction and future traffic conditions three years beyond the current year of application submission (2022) - during both the observed weekday peak periods and Saturday development operational peak period - is provided below:
- a) Horizon Traffic Flows (2025); and
 - b) Horizon Traffic Flows (2025) + Forecast Trip Attraction.
- 2.21 Assessment of the site access has been undertaken using the PICADY and ARCADY modules within the TRL software package JUNCTIONS 10, which is considered an appropriate tool to assess the impact of the development on the local highway network.

Reading Retail Park Access / Oxford Road (A329) Priority Junction

- 2.22 Summaries of the results for the Reading Retail Park Access / Oxford Road (A329) priority junction, across all scenarios, are provided in **Table 2.3** and **Table 2.4**, whilst the full PICADY Output Reports are provided in **Appendix F**.
- 2.23 The results of the PICADY model under the loading of the 2028 weekday traffic flow scenarios for the Reading Retail Park Access / Oxford Road (A329) priority junction are presented in **Table 2.3**.



Time Period	Stream	Horizon Year (2025)			Horizon Year (2025) + Forecast Trip Attraction		
		Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)	Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)
AM Peak (08:30-09:30)	B-AC	0.4	10.79	0.28	0.5	11.39	0.32
	C-AB	0.3	9.39	0.25	0.4	9.81	0.28
PM Peak (17:15-18:15)	B-AC	1.2	19.74	0.55	1.7	24.38	0.64
	C-AB	0.5	12.69	0.35	0.7	13.73	0.40

Table 2.3: Summary of PICADY weekday assessment (Reading Retail Park Access / Oxford Road (A329) priority junction).

2.24 **Table 2.3** indicates that the Reading Retail Park Access / Oxford Road (A329) priority junction shall operate well within its theoretical capacity during the 'Horizon Year 2025' AM and PM peak periods, with minimal queuing and delays. With the introduction of the development traffic, the junction is forecast to continue to operate suitably with no material changes to the anticipated level of queuing or vehicle delays when compared to the 'Horizon Year 2025' scenario.

2.25 The results of the PICADY model under the loading of the 2028 Saturday traffic flow scenarios for the Reading Retail Park Access / Oxford Road (A329) priority junction are presented in **Table 2.4**.

Time Period	Stream	Horizon Year (2025)			Horizon Year (2025) + Forecast Trip Attraction		
		Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)	Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)
Development Peak (12:00 to 13:00)	B-AC	3.9	46.39	0.82	9.7	97.95	0.95
	C-AB	0.8	15.66	0.46	1.2	17.86	0.53

Table 2.4: Summary of PICADY Saturday assessment (Reading Retail Park Access / Oxford Road (A329) priority junction).

2.26 **Table 2.4** indicates that the Reading Retail Park Access / Oxford Road (A329) priority junction shall operate within its theoretical capacity during the 'Horizon Year 2025' Saturday development peak period, with minimal queuing and delays when considering the context of the local highway network. Whilst upon the introduction of the development traffic, the junction is forecast to continue to operate suitably with no material changes to the anticipated level of queuing or vehicle delays on the local highway network when compared to the 'Horizon Year 2025' scenario.



2.27 Therefore, on this basis, the forecast trip attraction of the development proposal cannot be considered to result in a severe impact on highway safety or result in a material, cumulative impact on the operation of the retail park access junction in either the weekday or weekend peak periods.

Oxford Road (A329) / Wigmore Lane / Norcot Road Roundabout Junction

2.28 Summaries of the junction capacity assessment results for the Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction, across all scenarios, are provided in **Table 2.5** and **Table 2.6**, whilst the full ARCADY Output Reports are provided in **Appendix G**.

2.29 The results of the ARCADY model under the loading of the 2028 weekday traffic flow scenarios for the Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction are presented in **Table 2.5**.

Time Period	Stream	Horizon Year (2025)			Horizon Year (2025) + Forecast Trip Attraction		
		Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)	Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)
AM Peak (08:30-09:30)	A – Oxford Road (A329) East	1.1	4.07	0.53	1.2	4.14	0.54
	B – Norcot Road	2.1	13.08	0.68	2.2	13.67	0.69
	C – Oxford Road (A329) West	2.3	7.47	0.70	2.4	7.71	0.71
	D – Wigmore Lane	1.1	5.74	0.53	1.1	5.85	0.54
PM Peak (17:15 - 18:15)	A – Oxford Road (A329) East	4.7	12.48	0.83	5.4	14.00	0.85
	B – Norcot Road	2.4	18.54	0.71	2.6	20.42	0.74
	C – Oxford Road (A329) West	1.5	5.13	0.61	1.6	5.26	0.61
	D – Wigmore Lane	3.6	12.45	0.79	3.8	13.18	0.80

Table 2.5: Summary of ARCADY weekday assessment (Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction).

2.30 **Table 2.5** indicates that the Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction shall operate within its theoretical capacity during the 'Horizon Year 2025' weekday AM and PM peak periods, with minimal queuing and delays when considering the context of the local highway network. Whilst upon the introduction of the development traffic, the junction is forecast to continue to operate suitably with no material changes to the anticipated level of queuing or vehicle delays when compared to the 'Horizon Year 2025' scenario.



2.31 The results of the ARCADY model under the loading of the 2028 Saturday traffic flow scenarios for the Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction are presented in **Table 2.6**.

Time Period	Stream	Horizon Year (2025)			Horizon Year (2025) + Forecast Trip Attraction		
		Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)	Queue (Vehicles)	Delay (Seconds)	Ratio of Flow to Capacity (RFC)
Development Peak (12:00 to 13:00)	A – Oxford Road (A329) East	5.1	12.47	0.84	6.4	15.23	0.87
	B – Norcot Road	4.3	31.13	0.83	5.6	40.35	0.87
	C – Oxford Road (A329) West	2.2	6.96	0.69	2.3	7.30	0.70
	D – Wigmore Lane	2.1	8.42	0.68	2.2	8.83	0.69

Table 2.6: Summary of ARCADY Saturday assessment (Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction).

2.32 **Table 2.6** indicates that the Oxford Road (A329) / Wigmore Lane / Norcot Road roundabout junction shall operate within its theoretical capacity during the ‘Horizon Year 2025’ Saturday development peak period, with minimal queuing and delays when considering the context of the local highway network. Whilst upon the introduction of the development traffic, the junction is forecast to essentially continue to operate suitably with no material changes to the anticipated level of queuing or vehicle delays when compared to the ‘Horizon Year 2025’ scenario.

2.33 Therefore, on this basis, the forecast trip attraction of the development proposal cannot be considered to result in a severe impact on highway safety or result in a material, cumulative impact on the operation of the local highway network.

Traffic Impact Conclusions

2.34 In relation to the analysis detailed above, the following conclusions of the traffic impact on the local highway network may be drawn:

- a) The TRICS Research 14/1 methodology has been followed and provides a strong justification that the location, nature, and scale of the proposal indicate that it is highly likely it shall be associated with a high proportion of linked trips;
- b) Additional evidence in the form of a customer trip type survey at a donor site indicates that such retail uses may be associated with just 26% of new trips, with the remainder already existing on the local highway network in the form of diverted or pass-by (9%) or linked (55%); and
- c) The junction capacity assessment comprises a robust analysis and worst-case scenario, with minimal queuing and delays forecast in future assessment years, which shall likely be imperceptible in real terms and represent an immaterial impact within the context of the local highway network.

- 2.35 Considering the revisions made to the trip type classification / attraction, the additional evidence detailed within local traffic survey data, and the junction capacity assessments, the proposal can therefore no longer be regarded as conflicting with Policy TR3 of Reading Borough Council Local Plan or paragraph 111 of the NPPF, given it shall not result in a severe impact on highway safety or result in a material, cumulative impact on the operation of the local highway network.

Pedestrian Footway Provision within the Retail Park

LHA Consultee Commentary

- 2.36 The LHA provided the following statement concerning a localised area of pedestrian infrastructure serving the application site as part of its justification for objecting to the proposal:

“The proposed development does not comply with the Local Planning Authority’s standards in respect of internal footway provision and, as a result, is in conflict with Local Plan Policy TR3.”

- 2.37 The consultation response referenced above concerns a section of footway beyond the red line boundary of the application site but still within the confines of Reading Retail Park. However, it is acknowledged that this is under the ownership / control of the applicant.

Rappor Technical Response

- 2.38 In response to the above, it should be noted that the photographic evidence used by RBC to inform this observation is outdated, with the pedestrian infrastructure improvements detailed within the consultee response already.
- 2.39 **Figure 2.1** illustrates the footway provision is of suitable width, form, benefits from dropped kerbs and associated tactile paving, and is not impeded by planted trees or unnecessary street furniture, some of which has been removed. It therefore provides a safe and suitable route that ensures pedestrian permeability to / from the application site and units within the wider retail park.



Figure 2.1: Existing footway provision showing a safe and suitable arrangement (November 2022 – Source: Google Earth Pro).

- 2.40 On the basis of the above, Rappor conclude the proposal can therefore no longer be regarded as conflicting with Policy TR3 of the Reading Borough Council Local Plan.

Suitability of Parking Provision

LHA Consultee Commentary

- 2.41 The LHA provided the following statement concerning the nature of the proposed parking provision as part of its justification for objecting to the proposal:

“The layout does not comply with the Local Planning Authority’s standards in respect of vehicle parking. This could result in inconsiderate parking within the wider car park, adversely affecting road safety and the flow of traffic, and in conflict with Policies TR3 and TR5 of the Reading Borough Local Plan.”

- 2.42 The consultation response referenced above concerns the proposed removal of the larger parking bays that currently serve vehicles with attached trailers that are currently associated with the adjacent Wickes store.
- 2.43 It should be noted that the consultee response did not raise any concerns regarding the overall quantum of parking spaces being proposed to accommodate forecast parking demand associated with the development proposal, or that associated with adjacent retailers sharing the provision of the wider retail park.

Rappor Technical Response

- 2.44 In response to the above, the applicant is willing to commit to a suitably worded planning condition which states that the larger trailer bays shall be relocated to elsewhere within the confines of the retail park. This shall ensure a more suitable parking arrangement to serve the proposed foodstore, especially given the anticipated demand of parent (or guardian) / child spaces and the proximity of parking provision to the store entrance / exit. Whilst the larger trailer spaces shall be relocated to a more convenient location to serve customers of the existing Wickes store. This commitment to reconfiguring the wider parking provision of the retail park shall result in an overall betterment in terms of daily operation and shall also minimise customer / vehicle conflict between neighbouring retail uses and parking requirements. However, this shall entail a reduction in the larger vehicle and trailer bays by one space, with two spaces provided elsewhere.
- 2.45 In order to determine the existing parking demand associated with Operational Goods Vehicles (OGVs) and Large Goods Vehicles (LGVs), a CCTV parking survey of the provision was undertaken by Autosurveys Ltd, an independent traffic surveyor, on Thursday the 26th of January 2023 (07:00 to 20:00) and Saturday the 28th of January 2023 (07:00 to 19:00).
- 2.46 The full parking survey data is provided in **Appendix H**, whilst a summary of the results is provided below.
- 2.47 On the Thursday, parking occupancy of an OGV and / or LGV did not exceed one space, with typical cars observed to be using the provision during the other instances whenever parking accumulation exceeded one vehicle throughout the duration of the survey period.



- 2.48 On the Saturday, parking occupancy of an OGV and / or LGV only exceeded one space between 10:00 and 10:44 and 13:36 and 14:12, with typical cars observed to be using the provision during the other instances whenever parking accumulation exceeded one vehicle throughout the duration of the survey period.
- 2.49 It should be noted that no vehicles with trailers were observed to use the larger bays at any point during both surveys, whilst given that cars should be using the standard provision available throughout the wider car park, there was less parking demand than what appears from initial inspection of the data.
- 2.50 It is therefore concluded that the parking survey provides sufficient evidence to indicate that the proposed removal of one larger trailer space – upon the relocation of such provision elsewhere within the wider car park – shall not result in demand not being accommodated for OGVs, LGVs or vehicles with trailers.
- 2.51 Considering this evidence and the commitment made by the applicant to ensure a suitable design of the parking provision to serve both the proposed foodstore and existing Wickes unit, the development proposal can therefore no longer be regarded as conflicting with Policy TR3 or TR5 of the Reading Borough Council Local Plan.

Servicing and Delivery Arrangements

LHA Consultee Commentary

- 2.52 The LHA provided the following statement concerning the nature of the servicing and delivery arrangements concerned with the development proposal:

“The proposed development does not comply with the Local Planning Authority’s standards in respect of servicing and, as a result, is in conflict with Local Plan Policies TR3 and TR5.”

- 2.53 Specifically, the LHA consultation note in the ‘servicing’ section at the top of page 4 raises an inconsistency between the existing and proposed plans. For instance, the proposals feature a servicing ramp in the yard to the rear of the unit. Furthermore, clarification is sought on the nature of the existing servicing / delivery arrangements of the adjacent Wickes store, given they share the same access / egress arrangements with the development proposal.

Rappor Technical Response

- 2.54 In response to the above, swept path analysis has been undertaken to demonstrate that the proposed servicing / delivery arrangements of the development proposal are safe and suitable. Whilst clarification of how the adjacent Wickes store is serviced has also been provided.
- 2.55 The proposed / existing servicing arrangements are illustrated in the swept path analysis drawings which are provided in **Appendix I**.
- 2.56 Considering the swept path analysis undertaken and the clarification provided regarding the proposed / existing servicing arrangements of the development proposal and the adjacent Wickes store, the proposal can therefore no longer be regarded as conflicting with Policy TR3 or TR5 of Reading Borough Council Local Plan.

3 Summary & Conclusion

Summary

- 3.1 Rappor have been instructed by Threadneedle UK Property Authorised Investment Fund to prepare a TN in support of a planning application concerning the proposed use of units 2 and 6 at Reading Retail Park, Reading, as a foodstore (Class E).
- 3.2 Planning permission is sought (ref: 221110) for the use of the existing Units 2 and 6 which currently operate on a non-food retail basis (comprising 2,492sq.m floor area) for a future foodstore, with a reduced floor area of 2,013sq.m.
- 3.3 Following the submission of a TS and TP in June 2022, the LHA provided a consultee response which raised issues relating to pedestrian movements within the site, servicing and trip attraction / traffic impact of the development proposal.
- 3.4 In response to the consultee comments, this TN concludes the following:
 - a) The revised forecast trip attraction, trip type classification, provision of additional evidence – in the form of donor site surveys and traffic surveys – and the junction capacity assessments indicate that the development traffic shall not result in a severe impact on the adjacent highway network and will likely be imperceptible, in real terms;
 - b) The internal pedestrian infrastructure is safe and suitable to serve the development proposal and the neighbouring retailers, given it has been upgraded, as evidenced by recent sources (November 2022);
 - c) The applicant is willing to commit to a suitably worded planning condition to ensure the larger vehicle / trailer spaces are relocated to ensure a more suitable internal operation of the retail park for all customers / vehicle users; and
 - d) The servicing and delivery arrangements for the application site and the adjacent Wickes unit are safe and suitable to serve the proposed and existing uses of the site, as evidenced through the supporting swept path analysis.

Conclusion

- 3.5 In conclusion, the following response detailed in this TN demonstrates that the development proposal will not have a significant impact upon the safe operation of the local highway network. Therefore, there are no highways and transportation matters that should preclude the LHA from recommending approval of this planning application.

Appendix A: Consultee Response

Memo

From: (e)Transport Development Control Floor 1 North Rear Civic Offices Bridge Street Reading RG1 2LU
To: Connie Davis 72413 Connie.Davis@reading.gov.uk
Date: 21st November 2022
Re: Consultation on Planning Application

Application Number: 221110

Application Type: Full Planning Approval

Address: Reading Retail Park Oxford Road Reading

Proposal: Proposed use of Unit 2 and Unit 6 as a foodstore (Class E) including rear extension, revised servicing arrangements, new shop front, trolley bay and covered cycle storage; and associated works

Transport Comments

The proposed development consists of a change to amalgamate Unit 2 and Unit 6 and allow the sale of food under use class (Class E) as well as create a rear extension, revised servicing arrangements, new shop front, trolley bay and covered cycle storage; and associated works.

To accompany this planning application a Transport Statement has been submitted to which my comments are as follows:

Site Location and Accessibility

The application site is Unit 2 and Unit 6 of Reading Retail Park, which is located off the southern side of Oxford Road and is located amongst other existing commercial / retail uses which include Wickes Building Supplies, The Gym, Wren Kitchens, B&M, Pets at Home, and KFC.

Both vehicular and servicing / delivery access are achieved from the priority junction arrangement with Oxford Road, which is located at the northern boundary of the site. This features a ghost-island right turn access and a left-turn only egress arrangement onto Oxford Road, whilst the internal retail park network is subject to 10mph speed limit and comprises traffic calming measures and zebra crossing points throughout.

Walking is the most important mode of travel at a local level as it offers the greatest potential to replace short car trips. The applicant has reviewed the 'National Travel Survey (NTS) 2019' (DfT) and found that 80% of all trips of less than 1 mile (1.6km) were made on foot. It should be noted that a new NTS for 2020 has been published which found that 82% of trips under 1mile (1.6km) are undertaken on foot. However, as expressed by the applicant due to COVID-19 the 2020 NTS may not provide wholly accurate information and therefore it is the Highway Authorities view that 2019 data should be used.

The 2019 NTS results detailed above are supported by the definition of a 'walkable neighbourhood' within Manual for Streets whereby facilities required on a day-to-day basis should ideally be located within an 800m walk distance. The applicant has referred to PPG13, which is now superseded, to identify an upper limit of 2km, however 'Guidelines

For Providing For Journeys On Foot' published by The Institution Of Highways & Transportation in the year 2000 stipulates the following at Paragraph 3.34:

For shopping, Carley and Donaldsons (1996) advise that that “acceptable” walking distances depend on the quality of the shops, the size of the shopping centre and the length of stay of the shopper. Specifically, they state that parking time governs the distance walked from parking. See Table 3.3) Higher quality and larger centres generate longer acceptable walking distances with up to 1250m of walking journey to 100,000m² of floor space.

The Highway Authority are not aware of any other walking assessment and the applicant has not referenced any either and therefore the walking distance would be well short of that specified by the applicant. However, this would still accommodate a significant catchment of residential properties within the vicinity of the application site.

Cycling also has the potential to substitute for short car trips, further facilitating sustainable travel. Whilst the NTS 2019 (Table NTS0306) notes that the average cycle trip is approximately 3.5 miles (5.6km), the Local Transport Note 1/04: Policy, Planning and Design for Walking and Cycling (page 15), produced by the Department for Transport (DfT) indicates that journeys three times the average distance are not uncommon for regular commuters. The growth of electric bikes is also increasing the propensity to cycle and reducing journey times.

Existing Infrastructure

The application site benefits from a good level of permeability to the surrounding pedestrian footway network, with a 1.2m footway linking from Reading Retail Park to the existing footway provision on the southern side of Oxford Road. However, it is noted that the footway specified by the applicant is in fact littered with bollards, posts, signage as well as incorporating trees.

In addition to the above it is noted that the crossing point within the existing car park along the pedestrian route to the store is not provided with any tactile paving and the width of the footway significant reduces at the area where pedestrians would be required to cross. See image below for reference.



The applicant has not provided a multi modal assessment of the application to determine whether the proposal would result in an increase in pedestrian trips but it is likely that this would be the case. As a result, pedestrian improvements to the site should be provided to encourage alternative modes of travel to and from the site and comply with the NPPF which states at Paragraph 112 that development should:

a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second - so far as possible - to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

The Oxford Road benefits from illuminated, surfaced footway provision c.2m wide - which increases in width along various sections in the vicinity of the Reading Retail Park site frontage - and numerous, signalised pedestrian crossing points. The footways present on both sides of the carriageway also benefit from dropped kerbs and associated tactile paving.

In terms of cycling, delineated cycle lanes are present on either side of the carriageway in the vicinity of the Reading Retail Park site frontage, whilst Advanced Stop Lines are also present at the signal crossing to the northwest of the Oxford Road / Reading Retail Park priority junction.

The site is within a comfortable catchment of up to 5km to a range of residential estates / areas and, therefore, it is anticipated that both employees and visitors will be able to utilize cycling as a mode of travel to / from the site.

Public Transport

The site is accessible in relation to public transport with bus stops located directly outside the application site for services heading east and west. This therefore provides suitable access for those living along the Oxford Road towards the town centre and those that live to the west within various parts of Tilehurst.

The applicant has undertaken an assessment of the bus services and has only taken account of routes 143 and BB3 which provides a total of 13 services throughout the course of the day which the applicant concludes is acceptable. The Highway Authority does not deem this to be acceptable however, this stop is also served by routes 16, 17, 85 and 91 operated by Reading Buses. Routes 16 and 17 provide up to 11 services an hour alone in both directions and therefore provides an acceptable level of public transport.

Access Strategy

Vehicles

The vehicle access into the site is to remain unaltered to the existing arrangement and in principle this has been deemed acceptable given that the size of vehicle entering the site will not alter as a result of the development, with articulated vehicles already serving the site.

Pedestrians & Cyclists

The applicant has stated that the proposed pedestrian / cyclist access arrangements of Reading Retail Park - and thus the application site - shall remain as existing. It is agreed that direct connections are available to the site from the existing infrastructure in place

along Oxford Road however, pedestrian routes within the site do not provide for tactile paving along the key desire lines with crossing points provided at areas with narrow footways as I have expressed previously within the consultation response. The proposed development does not promote sustainable transport within the confines of the Reading Retail Park and the pedestrian facilities should be reviewed further.

Servicing

The applicant has stated that servicing / delivery access to the application site's service yard shall be as per the existing however, the proposed block plan differs to that of the existing with car parking and a ramp now included.

These changes signify and considerable change to the servicing of the proposed unit as well as the retained gym located adjacent. Further information is therefore required illustrating the tracking for service vehicles for these units entering and leaving the service yard without interrupting any other units.

It should also be clarified how the exiting Wickes store is also serviced as this is not clear from the submitted information. Again, this is to make sure that conflicting operations do not occur.

Trip Rate Analysis

To establish the trip generation associated with both the existing and proposed site uses the applicant has utilized the Trip Rate information Computer System (TRICS), this is an acceptable methodology for assessing trip attraction and has been accepted by planning inspectors during planning appeals.

To assess the development it has been proposed to assess the existing and proposed uses during the following scenarios:

- a) Weekday typical AM peak (08:00 to 09:00);
- b) Weekday typical PM peak (17:00 to 18:00); and
- c) Saturday operational peak(s).

These proposed timings are acceptable to the Highway Authority.

Existing Trip Attraction: Non-Food Retail (2,492sq.m)

In order to assess traffic attraction associated with the existing uses of the application site (i.e. non-food retail - 2,492sq.m), the TRICS database has been interrogated and the retail land use of 'other individual non-food superstore' was selected. This has been accepted by the Highway Authority as an acceptable comparison to the application site.

The Highway Authority has reviewed the assessment that has been undertaken by the applicant and I can confirm that this is acceptable and that the trip rates would be comparable to the existing use. These trip rates are provided in the Table 1 below.

Table 1

Time Period	Trip Rate (per (100sqm))			Trip Attraction (2,492 sqm)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak (8am-9am)	0.146	0.00	0.146	4	0	4
PM Peak (5pm-6pm)	0.839	1.058	1.897	21	26	47
Saturday Operational Peak (12pm-1pm)	4.674	4.729	9.403	116	118	234

Proposed Use: Discount Food Retail (2,013sq.m)

The proposed planning permission sought is for the amalgamation of Unit 2 and Unit 6 to accommodate a discount food store (GIA 2,013sq.m). The TRICS database has therefore been interrogated by the applicant for 'Discount Food Retail' units and again is an acceptable approach.

Again, the Highway Authority has reviewed the assessment that has been undertaken by the applicant and I can confirm that this is acceptable and that the trip rates would be comparable to the existing use. It is however noted that the TRICS printout has not been provided for the weekend assessment and a duplicate weekday assessment has been included within the Appendices, however I have reviewed the data as provided within Table 5.2 of the Transport Statement.

It has however been noted that Table 5.2 of the Transport Statement is in fact incorrect in terms of the calculation of the trip attraction and the correct figure are provided within the Table 2 below.

Table 2

Time Period	Trip Rate (per (100sqm))			Trip Attraction (2,013 sqm)		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak (8am-9am)	2.923	2.249	5.172	59	45	104
PM Peak (5pm-6pm)	3.926	4.466	8.492	79	90	171
Saturday Operational Peak (12pm-1pm)	6.496	6.838	13.334	131	138	268

Net Trip Impact

In order to consider the overall net trip impact of the development proposal on the local highway network, a comparison of the existing and forecast trips has been set out in the Table below.

Table 3

Development Type	Time Period	Net Trip Impact		
		Arrivals	Departures	Total
A - Existing Use: Non-Food Retail - Carpetright & Halfords (2,492sq.m)	AM Peak (8am to 9am)	4	0	4
	PM Peak (5pm to 6pm)	21	26	47
	Saturday Operational Peak (12pm-1pm)	116	118	234
B - Proposed Use: Discount Food Retailer (2,013sq.m)	AM Peak (8am to 9am)	59	45	104
	PM Peak (5pm to 6pm)	79	90	171
	Saturday Operational Peak (12pm-1pm)	131	138	268
Total Development (B-A)	AM Peak (8am to 9am)	55	45	100
	PM Peak (5pm to 6pm)	58	64	124
	Saturday Operational Peak (12pm-1pm)	15	20	34

The Table above indicates that the proposed development is expected to result in an increase in traffic attraction of approximately 100, 124, and 34 two-way vehicle trips in the weekday AM, PM, and Saturday peak periods, respectively.

Trip Types and Discounts

In relation to the net trip impact of the development proposal, the applicant considers that the majority of trips associated with the proposed discount food retailer shall not be entirely 'new' to the network. It is proposed by the applicant that a percentage will be 'linked' to the other existing destinations within the retail park and as such are already taking place.

In addition to the above the applicant has proposed that journeys associated with the application site would also be linked to destinations / purposes extending beyond the application site (i.e. commuting / education / recreation).

The applicant therefore proposes that the trips primarily, and only, to a supermarket is unlikely to be undertaken by a customer during the busiest traffic periods of the day.

Taking the above into account the applicant has assumed that 90% of trips associated with the development proposal are 'linked trips' either to facilities within the wider retail park or beyond the application site. It is therefore proposed that the remaining 10% of trips are considered as 'new trips', which are those primarily, and only, associated with the application site.

However, the applicant has provided no evidence that this is an accurate percentage of trips that would be new trips. The latest and only data/clarity provided in relation to linked / pass by trips is contained within TRICS Research Report 14/1. This stipulates the following as part of paragraph 10.1 and is continued at Paragraph 10.2:

- *Many of the key arguments and conclusions contained within this report are not made within the 95/2 TRICS pass-by and diverted trips report as transport behaviour such as new trips is now much more widely understood. It should also be noted that many of the key conclusions made within the 1995 report are no longer valid as shopping trends and travel behaviours have changed.*
- *The 95/2 report states that “the proportion of trips generally accepted to be non-primary is 30%. Most of the non-primary trips tend to be home-work-site-home and hence values are generally lower than this at the weekend when there is less home commuting but could be higher on a Friday evening but would not expect to exceed 40%”. This standard application is no longer considered relevant due to the factors set out below in this report.*
- *The literature review undertaken as part of this report has demonstrated that there have been contradictory results regarding the prevalence of diverted / linked trips. Alongside this, shopping habits and travel patterns are changing rapidly. As such, a generic value that can be applied to all retail sites is not appropriate in this dynamic environment.*
- *The assessment of the TRICS data has not found any real correlations. This is partly due to there being so many variables in the data and site selection. Therefore it will be difficult for users to find a comparable store from the data sets available. It is therefore recommended that a site by site approach is taken in justifying the proportion of pass by and diverted trips that are to be attributed to the proposed development.*

10.2 It is recommended that for an assessment of the quantum of pass-by and diverted trips that a first principles approach is taken for each site, whereby a process is defined for the assessment of these trips and agreed by the applicant and determining authority. This will form an additional task in the scoping report for any Transport Assessment. Chapter 11 contains a process diagram and associated explanatory note that are intended to aid with the undertaking of this assessment.

Section 11 of the TRICS Research Report 14/1 provides a Pass-By & Diverted Trips Assessment Methodology which must be followed in order to assess accurately what percentage of trips can be deducted from the trip generation assessment.

Taking the above into account the Highway Authority are not able to agree the reductions proposed by the applicant and therefore the proposed net increase in trips as specified within Table 3 above are the only ones that can be accepted. Should a reduction not be accepted then the applicant would be required to upgrade the Transport Statement to a Transport Assessment given the proposed increased number of trips during the peak periods. This would require the site access, the Norcot Road / Oxford Road / Wigmore Lane roundabout junction and the Oxford Road / Grovelands Road signalized junction to be assessed.

Irrespective of this it should be stressed that the site access is a left exit only and therefore any pass by trips that are ultimately heading east would require drivers to travel through the Norcot Road / Oxford Road / Wigmore Lane roundabout junction twice. This will increase trips through a junction that is already heavily congested and as identified

through other recent planning applications is close to exceeding its capacity within peak periods. This would therefore require a review / assessment regardless of any reduction that may be agreed.

Taking the above into account the Highway Authority cannot agree to the applicant's assessment into the proposed trip generation.

Car Parking

In order to assess whether the car parking arrangements are suitable to accommodate the additional forecast demand associated with the development proposal, the applicant has undertaken car parking surveys to identify the residual capacity during the busiest operational periods.

Parking Survey

The parking survey was undertaken at Reading Retail Park on Friday the 22nd of May 2022, between 15:00 and 19:00, and Saturday the 21st of May 2022, between the hours of 10:00 and 16:00. These were to identify the residual capacity during the busiest operational periods and the timings of these have been deemed acceptable.

Weekday

The parking survey indicates that during the peak period of parking accumulation (between 18:30 and 19:00), there was an existing demand for 116 car parking spaces, which is equal to 27% of the surveyed car park capacity area.

Saturday

The parking survey indicates that during the peak period of parking accumulation (between 13:00 and 13:30), there was an existing demand for 176 car parking spaces, which is equal to 41% of the surveyed car park capacity area.

It is therefore accepted that the proposed car park is currently underutilized during the weekday and weekend periods.

In relation to the proposed car parking requirement for the site the Highway Authority refer to the Councils adopted Revised Parking Standards and Design Supplementary Planning Document. This highlights that a food retail store and a general retail store in excess of 1,000sqm would warrant the same car parking requirement. Given that the proposal does in fact reduce in floor area therefore reduce the parking demand, the Highway Authority are agreeable that no additional parking would be required.

However, the applicant has undertaken a car park accumulation survey utilizing the trip rate analysis to establish what level of car parking would be provided for the proposed change of use.

This is an acceptable methodology although I would agree with the applicant that not all of these forecast vehicle trips shall be 'new' and only associated with the application site. The Highway Authority as specified above does not however agree to the split in relation to new, diverted, pass by trips and therefore the parking requirement should not include any reduction at this time.

Weekday

The forecast demand of 47 parked cars is indicated to take place between 10:00 and 11:00 on a weekday morning. Considering the overall proposed capacity (i.e. 439 spaces) and the previously detailed weekday survey results, it is envisaged that the car park shall safely and suitably accommodate demand without resulting in any overspill parking or disruption to the existing safety and operation of the local highway network.

In addition, it is noted that the parking accumulation of the existing use equates to 36 cars between 10am and 11am which would result in an increase of just 11 cars when compared to the forecast demand. The peak demand for the existing would be between the hour of 4pm and 5pm which equates to 41 parked cars, however the proposed number of parked cars during this hour is also 41 cars creating no change in demand.

The Highway Authority are therefore content that no further car parking is required for the weekday period.

Saturday

The forecast demand of 63 parked cars is indicated to take place between 11:00 and 12:00 on a Saturday morning. Considering the overall capacity (i.e. 439 spaces) and the previously detailed Saturday survey results, it is envisaged that the car park shall safely and suitably accommodate demand without resulting in any overspill parking or disruption to the existing safety and operation of the local highway network.

In addition, it is noted that the parking accumulation of the existing use equates to a peak demand of 65 cars between 110am and 11am which would result in a reduction of just 2 cars when compared to the forecast demand.

The Highway Authority are therefore content that no further car parking is required for the weekend period.

It is also noted that the existing site layout includes the provision of three trailer bays located adjacent to the trade entrance to the Wickes store. It is likely that these bays are associated with that use and were included within the planning requirement for the Wickes store. The proposal includes the loss of these three bays without an assessment being undertaken to establish whether they are no longer required. A survey of these bays must therefore be provided before their loss can be agreed.

Overall, the Highway Authority are content that sufficient car parking is provided across the site.

Cycle Parking

The proposed requirement for cycle parking is the same when the existing and proposed uses are compared. The Highway Authority are therefore content that no additional cycle parking is required.

Based on the insufficient information that has been provided in relation to capacity impacts and the other on site matters the Highway Authority objects to the proposal on the following grounds.

Reasons for Refusal

Insufficient information has been submitted with the planning application to enable the highways, traffic and transportation implications of the proposed development to be fully assessed. From the information submitted, it is considered that the additional traffic likely to be generated by the proposal would adversely affect the safety and flow of users of the existing road network within Reading, contrary to Policy TR3 of the Reading Borough Local Plan.

The proposed development does not comply with the Local Planning Authority's standards in respect of internal footway provision and, as a result, is in conflict with Local Plan Policy TR3.

The layout does not comply with the Local Planning Authority's standards in respect of vehicle parking. This could result in inconsiderate parking within the wider car park, adversely affecting road safety and the flow of traffic, and in conflict with Policies TR3 and TR5 of the Reading Borough Local Plan.

The proposed development does not comply with the Local Planning Authority's standards in respect of servicing and, as a result, is in conflict with Local Plan Policies TR3 and TR5.

Darren Cook
Transport Development Control Manager

Appendix B: Customer Trip Type Survey – Donor Site (February 2023)

Home Bargains Trip Purpose - Customer Survey

Sunday, February 12, 2023

305

Total Responses

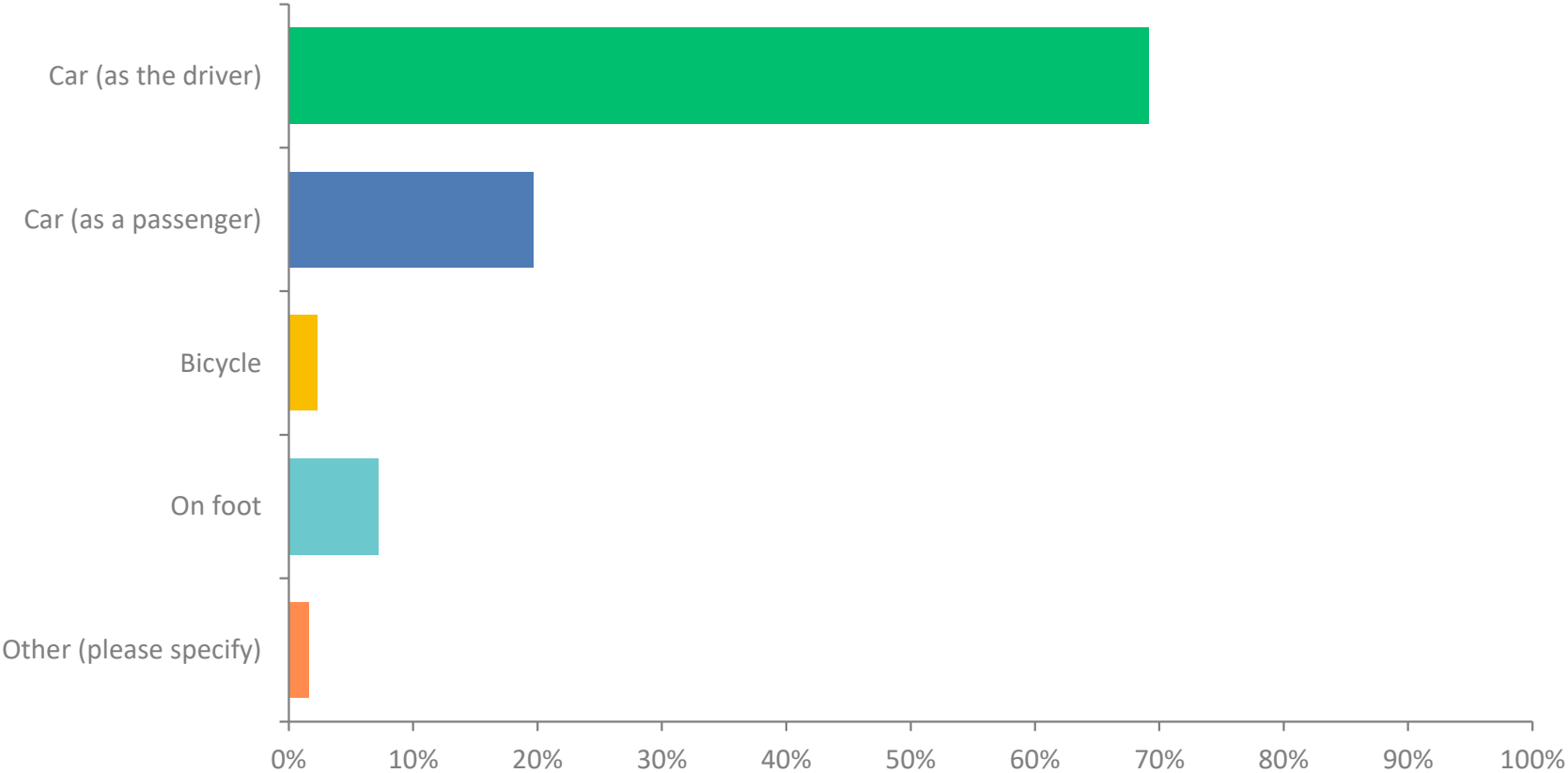
Date Created: Thursday, February 09, 2023

Complete Responses: 305

Powered by  SurveyMonkey®

Q1: How did you arrive at Home Bargains today?

Answered: 305 Skipped: 0



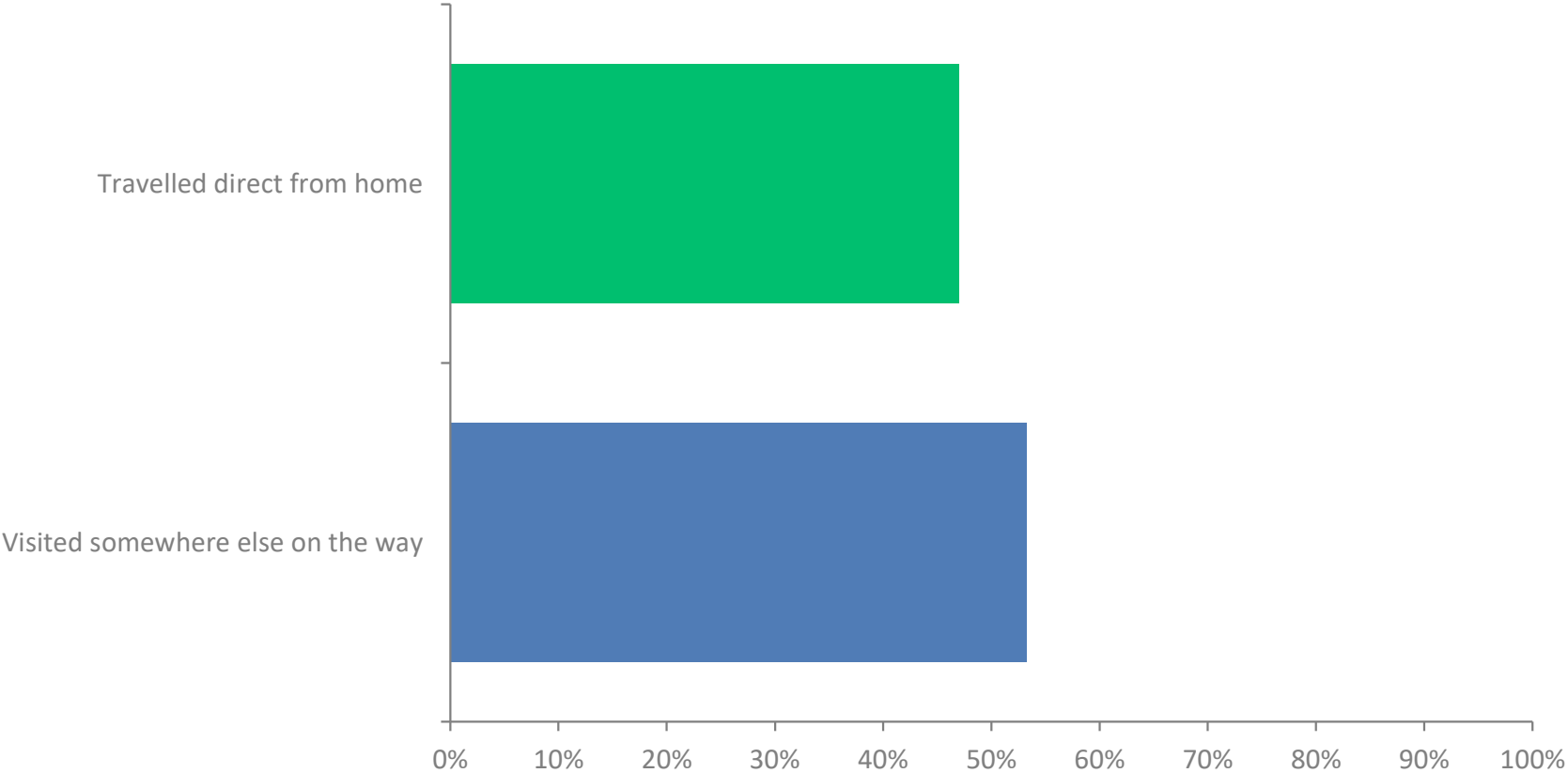
Q1: How did you arrive at Home Bargains today?

Answered: 305 Skipped: 0

ANSWER CHOICES	RESPONSES	
Car (as the driver)	69.18%	211
Car (as a passenger)	19.67%	60
Bicycle	2.30%	7
On foot	7.21%	22
Other (please specify)	1.64%	5
TOTAL		305

Q2: Have you travelled directly from home to come to Home Bargains today, or have you visited anywhere else on the way?

Answered: 304 Skipped: 1



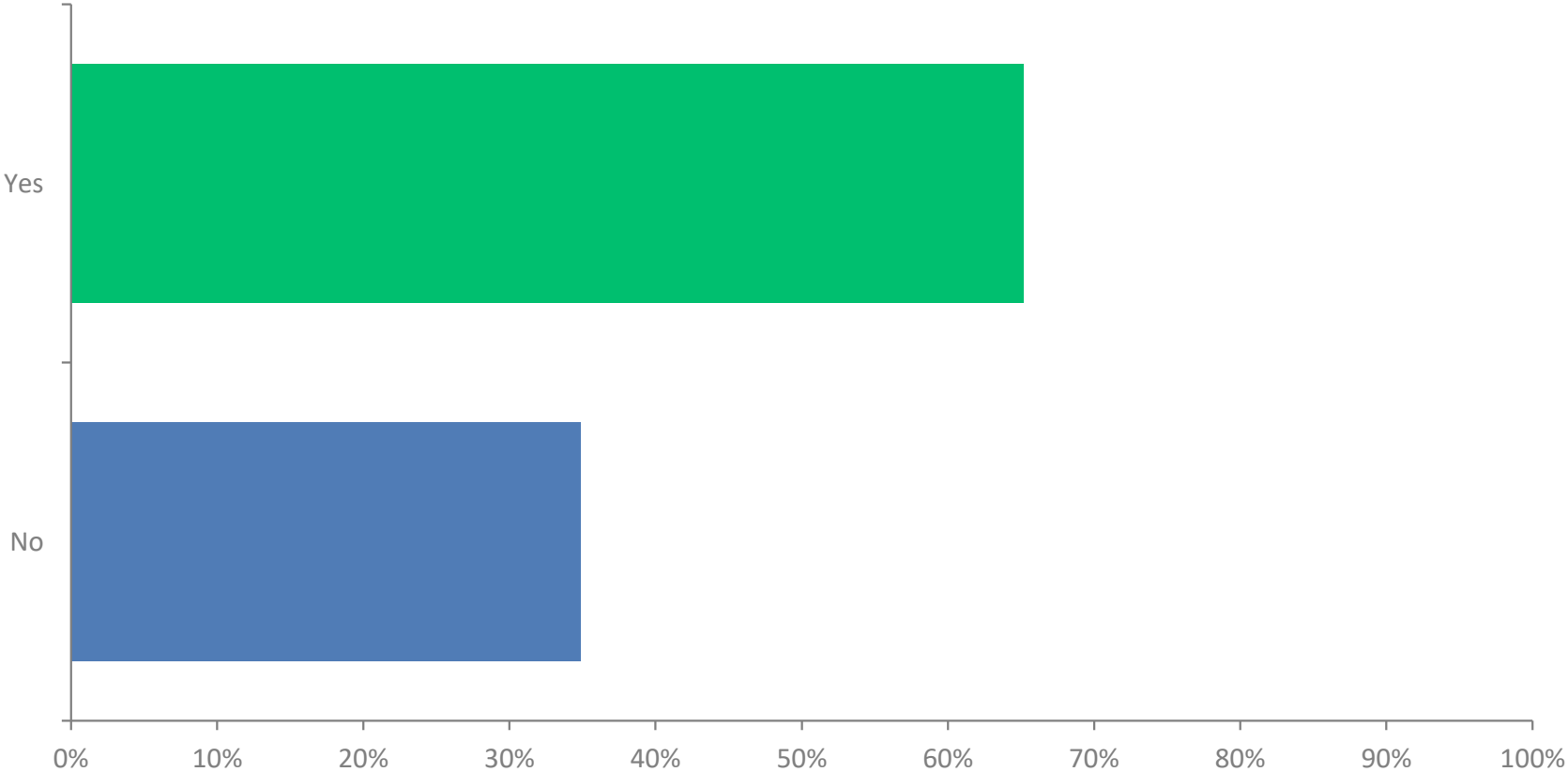
Q2: Have you travelled directly from home to come to Home Bargains today, or have you visited anywhere else on the way?

Answered: 304 Skipped: 1

ANSWER CHOICES	RESPONSES	
Travelled direct from home	47.04%	143
Visited somewhere else on the way	53.29%	162
TOTAL		305

Q3: Will you travel straight home after shopping at Home Bargains?

Answered: 304 Skipped: 1



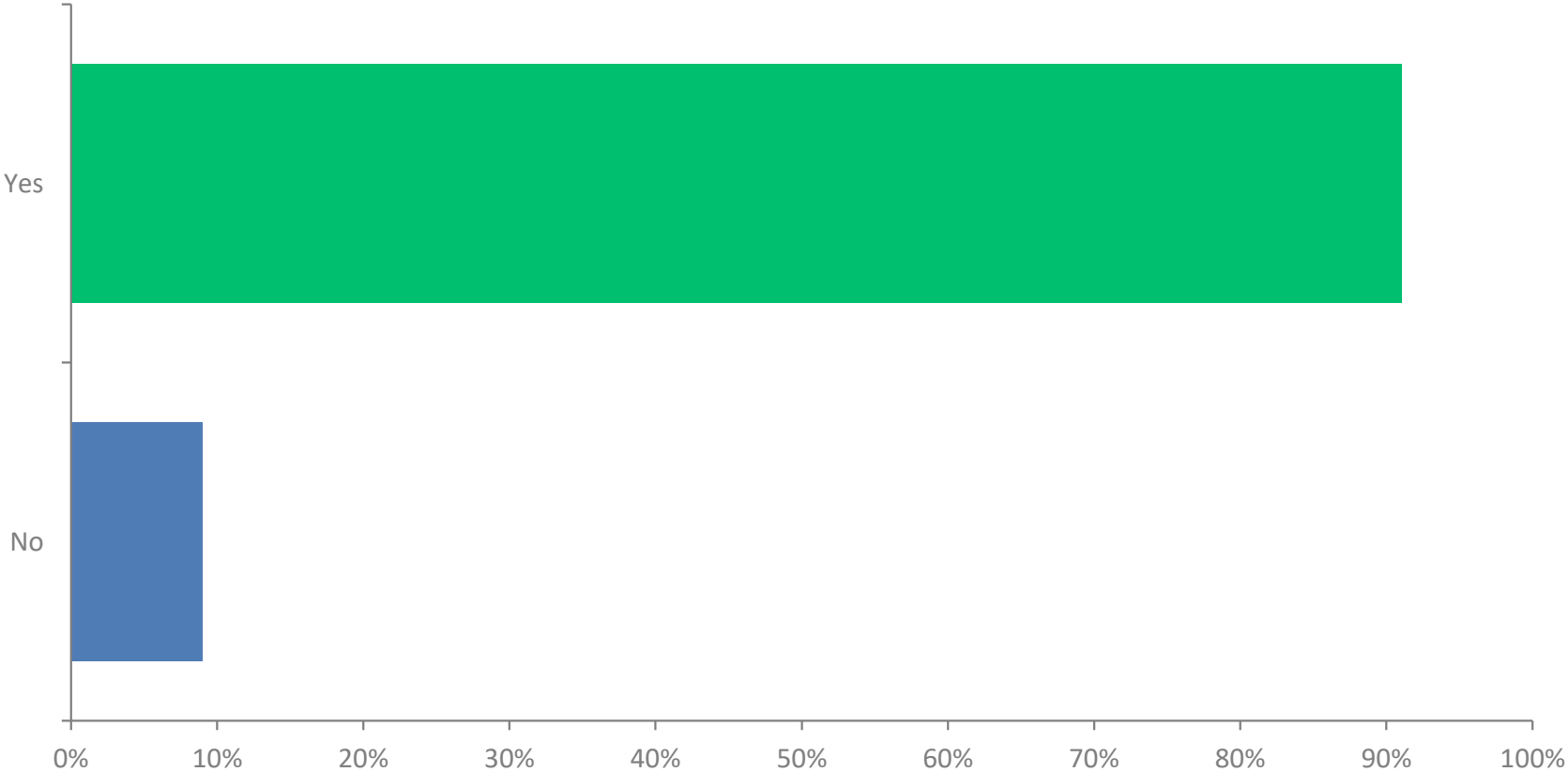
Q3: Will you travel straight home after shopping at Home Bargains?

Answered: 304 Skipped: 1

ANSWER CHOICES	RESPONSES	
Yes	65.13%	198
No	34.87%	106
TOTAL		304

Q4: When you left home today, was it always your intention to come to Home Bargains?

Answered: 301 Skipped: 4



Q4: When you left home today, was it always your intention to come to Home Bargains?

Answered: 301 Skipped: 4

ANSWER CHOICES	RESPONSES	
Yes	91.03%	274
No	8.97%	27
TOTAL		301

Appendix C: Traffic Survey Data (May 2022)

Reading, Thursday 9th June 2022

Reading Retail Park



TIME	Left into Reading Retail Park					Right into Reading Retail Park				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	9	0	0	9	9.0	9	0	0	9	9.0
07:15 - 07:30	8	1	0	9	10.3	15	0	0	15	15.0
07:30 - 07:45	11	0	0	11	11.0	11	0	0	11	11.0
07:45 - 08:00	7	0	0	7	7.0	12	0	0	12	12.0
Hourly Total	35	1	0	36	37.3	47	0	0	47	47.0
08:00 - 08:15	10	0	0	10	10.0	10	0	0	10	10.0
08:15 - 08:30	8	0	0	8	8.0	21	1	0	22	23.3
08:30 - 08:45	11	0	0	11	11.0	10	0	0	10	10.0
08:45 - 09:00	17	0	0	17	17.0	34	0	0	34	34.0
Hourly Total	46	0	0	46	46.0	75	1	0	76	77.3
09:00 - 09:15	17	0	0	17	17.0	34	0	0	34	34.0
09:15 - 09:30	18	1	0	19	20.3	34	0	0	34	34.0
09:30 - 09:45	21	0	0	21	21.0	29	0	0	29	29.0
09:45 - 10:00	18	0	0	18	18.0	21	0	0	21	21.0
Hourly Total	74	1	0	75	76.3	118	0	0	118	118.0

TOTAL	155	2	0	157	159.6	240	1	0	241	242.3
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16:00 - 16:15	21	0	0	21	21.0	50	0	0	50	50.0
16:15 - 16:30	20	0	0	20	20.0	33	1	0	34	35.3
16:30 - 16:45	21	0	0	21	21.0	27	0	0	27	27.0
16:45 - 17:00	15	0	0	15	15.0	29	0	0	29	29.0
Hourly Total	77	0	0	77	77.0	139	1	0	140	141.3
17:00 - 17:15	22	0	0	22	22.0	24	0	0	24	24.0
17:15 - 17:30	23	0	0	23	23.0	21	0	0	21	21.0
17:30 - 17:45	10	0	0	10	10.0	30	0	0	30	30.0
17:45 - 18:00	9	0	0	9	9.0	38	0	0	38	38.0
Hourly Total	64	0	0	64	64.0	113	0	0	113	113.0
18:00 - 18:15	25	0	0	25	25.0	45	0	0	45	45.0
18:15 - 18:30	22	0	0	22	22.0	31	0	0	31	31.0
18:30 - 18:45	14	0	0	14	14.0	43	0	0	43	43.0
18:45 - 19:00	24	0	0	24	24.0	29	0	0	29	29.0
Hourly Total	85	0	0	85	85.0	148	0	0	148	148.0

TOTAL	226	0	0	226	226.0	400	1	0	401	402.3
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TIME	Left out of Reading Retail Park					Right out of Reading Retail Park				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
9	0	0	0	9	9.0	4	0	0	4	4.0
15	0	0	0	15	15.0	1	0	0	1	1.0
14	0	0	0	14	14.0	0	0	0	0	0.0
14	0	0	0	14	14.0	1	0	0	1	1.0
52	0	0	0	52	52.0	6	0	0	6	6.0
17	0	0	0	17	17.0	2	0	0	2	2.0
12	0	0	0	12	12.0	2	0	0	2	2.0
17	2	0	0	19	21.6	4	0	0	4	4.0
33	0	0	0	33	33.0	2	0	0	2	2.0
79	2	0	0	81	83.6	10	0	0	10	10.0
30	0	0	0	30	30.0	9	0	0	9	9.0
35	0	0	0	35	35.0	1	0	0	1	1.0
52	0	0	0	52	52.0	0	0	0	0	0.0
39	1	0	0	40	41.3	1	0	0	1	1.0
156	1	0	0	157	158.3	11	0	0	11	11.0

287	3	0	0	290	293.9	27	0	0	27	27.0
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55	0	0	0	55	55.0	0	0	0	0	0.0
60	0	0	0	60	60.0	4	0	0	4	4.0
47	0	0	0	47	47.0	1	0	0	1	1.0
46	0	0	0	46	46.0	0	0	0	0	0.0
208	0	0	0	208	208.0	5	0	0	5	5.0
44	0	0	0	44	44.0	1	0	0	1	1.0
47	0	0	0	47	47.0	1	0	0	1	1.0
48	0	0	0	48	48.0	5	0	0	5	5.0
54	0	0	0	54	54.0	1	0	0	1	1.0
193	0	0	0	193	193.0	8	0	0	8	8.0
48	0	0	0	48	48.0	2	0	0	2	2.0
54	0	0	0	54	54.0	2	0	0	2	2.0
59	0	0	0	59	59.0	2	0	0	2	2.0
43	0	0	0	43	43.0	2	0	0	2	2.0
204	0	0	0	204	204.0	8	0	0	8	8.0

605	0	0	0	605	605.0	21	0	0	21	21.0
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PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

Reading, Saturday 11th June 2022

Reading Retail Park



TIME	Left into Reading Retail Park					Right into Reading Retail Park				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
11:00 - 11:15	46	1	0	47	48.3	26	0	0	26	26.0
11:15 - 11:30	32	0	0	32	32.0	49	0	0	49	49.0
11:30 - 11:45	29	0	0	29	29.0	54	0	0	54	54.0
11:45 - 12:00	40	0	0	40	40.0	39	0	0	39	39.0
Hourly Total	147	1	0	148	149.3	168	0	0	168	168.0
12:00 - 12:15	29	0	0	29	29.0	29	0	0	29	29.0
12:15 - 12:30	30	0	0	30	30.0	53	0	0	53	53.0
12:30 - 12:45	37	0	0	37	37.0	37	0	0	37	37.0
12:45 - 13:00	33	0	0	33	33.0	48	0	0	48	48.0
Hourly Total	129	0	0	129	129.0	167	0	0	167	167.0
13:00 - 13:15	29	0	0	29	29.0	49	0	0	49	49.0
13:15 - 13:30	29	0	0	29	29.0	54	0	0	54	54.0
13:30 - 13:45	24	0	0	24	24.0	52	0	0	52	52.0
13:45 - 14:00	27	0	0	27	27.0	53	0	0	53	53.0
Hourly Total	109	0	0	109	109.0	208	0	0	208	208.0
14:00 - 14:15	27	0	0	27	27.0	49	0	0	49	49.0
14:15 - 14:30	32	0	0	32	32.0	43	0	0	43	43.0
14:30 - 14:45	24	0	0	24	24.0	47	0	0	47	47.0
14:45 - 15:00	28	0	0	28	28.0	60	0	0	60	60.0
Hourly Total	111	0	0	111	111.0	199	0	0	199	199.0
TOTAL	496	1	0	497	498	742	0	0	742	742

TIME	Left out of Reading Retail Park					Right out of Reading Retail Park				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
80	0	0	0	80	80.0	2	0	0	2	2.0
72	0	0	0	72	72.0	2	0	0	2	2.0
73	0	0	0	73	73.0	1	0	0	1	1.0
80	0	0	0	80	80.0	4	0	0	4	4.0
305	0	0	0	305	305.0	9	0	0	9	9.0
71	0	0	0	71	71.0	1	0	0	1	1.0
69	0	0	0	69	69.0	1	0	0	1	1.0
79	0	0	0	79	79.0	3	0	0	3	3.0
67	0	0	0	67	67.0	3	0	0	3	3.0
286	0	0	0	286	286.0	8	0	0	8	8.0
99	0	0	0	99	99.0	2	0	0	2	2.0
76	0	0	0	76	76.0	2	0	0	2	2.0
74	0	0	0	74	74.0	1	0	0	1	1.0
74	0	0	0	74	74.0	2	0	0	2	2.0
323	0	0	0	323	323.0	7	0	0	7	7.0
72	0	0	0	72	72.0	5	0	0	5	5.0
79	0	0	0	79	79.0	1	0	0	1	1.0
87	0	0	0	87	87.0	1	0	0	1	1.0
83	0	0	0	83	83.0	1	0	0	1	1.0
321	0	0	0	321	321.0	8	0	0	8	8.0
1235	0	0	0	1235	1235	32	0	0	32	32

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

1145 to 1245

Reading, Thursday 19th May 2022

Junction: 1
Approach: Wigmore Lane



TIME	Left to Oxford Road (East)					Ahead to Norcot Road					Right to Oxford Road (West)					U-Turn				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	20	2	0	22	24.6	21	0	0	21	21.0	38	2	0	40	42.6	0	0	0	0	0.0
07:15 - 07:30	20	0	0	20	20.0	29	0	0	29	29.0	57	1	1	59	61.3	0	1	0	1	2.3
07:30 - 07:45	22	3	0	25	28.9	31	0	0	31	31.0	52	3	0	55	58.9	0	0	0	0	0.0
07:45 - 08:00	26	7	0	33	42.1	43	0	0	43	43.0	66	3	0	69	72.9	0	0	0	0	0.0
Hourly Total	88	12	0	100	115.6	124	0	0	124	124.0	213	9	1	223	235.7	0	1	0	1	2.3
08:00 - 08:15	30	6	0	36	43.8	38	1	0	39	40.3	60	6	0	66	73.8	0	0	0	0	0.0
08:15 - 08:30	25	4	0	29	34.2	51	0	0	51	51.0	61	3	0	64	67.9	0	0	0	0	0.0
08:30 - 08:45	41	4	0	45	50.2	53	0	0	53	53.0	67	1	1	69	71.3	0	0	0	0	0.0
08:45 - 09:00	36	4	0	40	45.2	43	0	0	43	43.0	75	4	0	79	84.2	0	0	0	0	0.0
Hourly Total	132	18	0	150	173.4	185	1	0	186	187.3	263	14	1	278	297.2	0	0	0	0	0.0
09:00 - 09:15	47	8	0	55	65.4	38	1	0	39	40.3	61	4	0	65	70.2	0	0	0	0	0.0
09:15 - 09:30	32	2	0	34	36.6	22	0	0	22	22.0	79	1	0	80	81.3	0	0	0	0	0.0
09:30 - 09:45	36	2	0	38	40.6	39	0	0	39	39.0	52	2	1	55	58.6	0	0	0	0	0.0
09:45 - 10:00	24	6	0	30	37.8	41	0	0	41	41.0	69	2	0	71	73.6	0	0	0	0	0.0
Hourly Total	139	18	0	157	180.4	140	1	0	141	142.3	261	9	1	271	283.7	0	0	0	0	0.0
TOTAL	359	48	0	407	469.4	449	2	0	451	453.6	737	32	3	772	816.6	0	1	0	1	2.3
16:00 - 16:15	54	0	0	54	54.0	83	1	0	84	85.3	117	2	0	119	121.6	0	0	0	0	0.0
16:15 - 16:30	54	0	0	54	54.0	69	0	0	69	69.0	122	0	0	122	122.0	0	0	0	0	0.0
16:30 - 16:45	47	0	0	47	47.0	75	1	0	76	77.3	103	1	0	104	105.3	0	0	0	0	0.0
16:45 - 17:00	45	1	0	46	47.3	82	0	0	82	82.0	124	0	1	125	126.0	0	0	0	0	0.0
Hourly Total	200	1	0	201	202.3	309	2	0	311	313.6	466	3	1	470	474.9	0	0	0	0	0.0
17:00 - 17:15	47	2	0	49	51.6	84	0	0	84	84.0	93	1	0	94	95.3	0	0	0	0	0.0
17:15 - 17:30	56	1	0	57	58.3	63	0	0	63	63.0	103	0	0	103	103.0	0	0	0	0	0.0
17:30 - 17:45	51	0	0	51	51.0	74	0	0	74	74.0	107	0	0	107	107.0	0	0	0	0	0.0
17:45 - 18:00	59	0	0	59	59.0	84	0	0	84	84.0	108	0	0	108	108.0	0	0	0	0	0.0
Hourly Total	213	3	0	216	219.9	305	0	0	305	305.0	411	1	0	412	413.3	0	0	0	0	0.0
18:00 - 18:15	61	0	0	61	61.0	70	0	0	70	70.0	110	1	0	111	112.3	0	0	0	0	0.0
18:15 - 18:30	43	1	0	44	45.3	73	0	0	73	73.0	103	1	0	104	105.3	0	0	0	0	0.0
18:30 - 18:45	51	0	0	51	51.0	44	0	0	44	44.0	86	0	0	86	86.0	0	0	0	0	0.0
18:45 - 19:00	64	0	0	64	64.0	54	0	0	54	54.0	76	0	0	76	76.0	0	0	0	0	0.0
Hourly Total	219	1	0	220	221.3	241	0	0	241	241.0	375	2	0	377	379.6	0	0	0	0	0.0
TOTAL	632	5	0	637	643.5	855	2	0	857	859.6	1252	6	1	1259	1267.8	0	0	0	0	0.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

614.0

933.0

Reading, Thursday 19th May 2022

Junction: 1
Approach: Oxford Road East



TIME	Left to Norcot Road					Ahead to Oxford Road (West)					Right to Wigmore Lane					U-Turn				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	9	0	1	10	11.0	47	0	0	47	47.0	19	8	0	27	37.4	6	2	0	8	10.6
07:15 - 07:30	18	1	2	21	24.3	79	2	2	83	87.6	41	7	0	48	57.1	7	0	0	7	7.0
07:30 - 07:45	19	0	1	20	21.0	77	4	1	82	88.2	39	7	0	46	55.1	4	1	0	5	6.3
07:45 - 08:00	32	0	2	34	36.0	97	0	1	98	99.0	35	5	0	40	46.5	5	1	0	6	7.3
Hourly Total	78	1	6	85	92.3	300	6	4	310	321.8	134	27	0	161	196.1	22	4	0	26	31.2
08:00 - 08:15	30	0	2	32	34.0	116	4	2	122	129.2	39	4	0	43	48.2	3	0	0	3	3.0
08:15 - 08:30	58	1	1	60	62.3	90	4	0	94	99.2	34	7	0	41	50.1	2	1	0	3	4.3
08:30 - 08:45	56	0	2	58	60.0	92	1	0	93	94.3	32	7	0	39	48.1	4	0	0	4	4.0
08:45 - 09:00	41	2	2	45	49.6	130	6	1	137	145.8	70	3	0	73	76.9	3	0	0	3	3.0
Hourly Total	185	3	7	195	205.9	428	15	3	446	468.5	175	21	0	196	223.3	12	1	0	13	14.3
09:00 - 09:15	37	1	2	40	43.3	121	1	1	123	125.3	58	1	0	59	60.3	5	0	0	5	5.0
09:15 - 09:30	46	0	1	47	48.0	110	4	1	115	121.2	41	6	0	47	54.8	5	0	0	5	5.0
09:30 - 09:45	42	0	3	45	48.0	95	2	0	97	99.6	53	2	0	55	57.6	4	0	0	4	4.0
09:45 - 10:00	43	0	2	45	47.0	110	8	1	119	130.4	43	0	0	43	43.0	5	0	0	5	5.0
Hourly Total	168	1	8	177	186.3	436	15	3	454	476.5	195	9	0	204	215.7	19	0	0	19	19.0
TOTAL	431	5	21	457	484.5	1164	36	10	1210	1266.8	504	57	0	561	635.1	53	5	0	58	64.5
16:00 - 16:15	80	0	0	80	80.0	120	0	0	120	120.0	30	0	0	30	30.0	6	0	0	6	6.0
16:15 - 16:30	87	0	2	89	91.0	126	1	0	127	128.3	33	2	0	35	37.6	8	0	0	8	8.0
16:30 - 16:45	70	0	2	72	74.0	128	0	0	128	128.0	32	2	0	34	36.6	7	0	0	7	7.0
16:45 - 17:00	60	0	2	62	64.0	120	1	1	122	124.3	30	2	0	32	34.6	7	0	0	7	7.0
Hourly Total	297	0	6	303	309.0	494	2	1	497	500.6	125	6	0	131	138.8	28	0	0	28	28.0
17:00 - 17:15	71	1	1	73	75.3	135	0	1	136	137.0	38	0	0	38	38.0	8	0	0	8	8.0
17:15 - 17:30	80	1	2	83	86.3	138	0	0	138	138.0	30	0	0	30	30.0	8	0	0	8	8.0
17:30 - 17:45	90	0	0	90	90.0	177	1	1	179	181.3	35	0	0	35	35.0	6	0	0	6	6.0
17:45 - 18:00	80	0	2	82	84.0	174	2	1	177	180.6	28	1	0	29	30.3	10	0	1	11	12.0
Hourly Total	321	2	5	328	335.6	624	3	3	630	636.9	131	1	0	132	133.3	32	0	1	33	34.0
18:00 - 18:15	94	0	2	96	98.0	180	0	2	182	184.0	38	0	0	38	38.0	5	0	1	6	7.0
18:15 - 18:30	84	1	3	88	92.3	151	0	1	152	153.0	50	0	0	50	50.0	9	0	1	10	11.0
18:30 - 18:45	71	0	2	73	75.0	151	0	0	151	151.0	61	2	0	63	65.6	6	1	0	7	8.3
18:45 - 19:00	87	0	1	88	89.0	146	0	1	147	148.0	57	0	0	57	57.0	7	0	0	7	7.0
Hourly Total	336	1	8	345	354.3	628	0	4	632	636.0	206	2	0	208	210.6	27	1	2	30	33.3
TOTAL	954	3	19	976	998.9	1746	5	8	1759	1773.5	462	9	0	471	482.7	87	1	3	91	95.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

850

1123.0

Reading, Thursday 19th May 2022

Junction: 1
Approach: Norcot Road



TIME	Left to Oxford Road (West)					Ahead to Wigmore Lane					Right to Oxford Road (East)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	7	0	0	7	7.0	60	0	0	60	60.0	33	0	2	35	37.0
07:15 - 07:30	18	0	1	19	20.0	78	0	0	78	78.0	36	0	1	37	38.0
07:30 - 07:45	24	0	0	24	24.0	73	0	0	73	73.0	36	0	1	37	38.0
07:45 - 08:00	22	1	0	23	24.3	73	0	0	73	73.0	51	1	2	54	57.3
Hourly Total	71	1	1	73	75.3	284	0	0	284	284.0	156	1	6	163	170.3
08:00 - 08:15	18	1	0	19	20.3	62	0	0	62	62.0	46	0	2	48	50.0
08:15 - 08:30	28	0	0	28	28.0	52	0	0	52	52.0	37	0	2	39	41.0
08:30 - 08:45	29	0	0	29	29.0	74	0	0	74	74.0	48	1	2	51	54.3
08:45 - 09:00	25	1	0	26	27.3	69	0	0	69	69.0	44	0	1	45	46.0
Hourly Total	100	2	0	102	104.6	257	0	0	257	257.0	175	1	7	183	191.3
09:00 - 09:15	18	1	1	20	22.3	63	0	0	63	63.0	36	2	2	40	44.6
09:15 - 09:30	15	0	0	15	15.0	47	1	0	48	49.3	38	0	2	40	42.0
09:30 - 09:45	12	0	0	12	12.0	43	0	0	43	43.0	37	1	2	40	43.3
09:45 - 10:00	17	0	0	17	17.0	44	0	0	44	44.0	33	1	2	36	39.3
Hourly Total	62	1	1	64	66.3	197	1	0	198	199.3	144	4	8	156	169.2

TOTAL	233	4	2	239	246.2	738	1	0	739	740.3	475	6	21	502	530.8
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16:00 - 16:15	18	0	0	18	18.0	47	0	0	47	47.0	40	0	2	42	44.0
16:15 - 16:30	22	0	0	22	22.0	34	1	0	35	36.3	35	0	2	37	39.0
16:30 - 16:45	19	0	0	19	19.0	39	0	0	39	39.0	40	0	2	42	44.0
16:45 - 17:00	21	0	0	21	21.0	47	0	0	47	47.0	40	0	2	42	44.0
Hourly Total	80	0	0	80	80.0	167	1	0	168	169.3	155	0	8	163	171.0
17:00 - 17:15	21	0	0	21	21.0	53	0	0	53	53.0	38	0	2	40	42.0
17:15 - 17:30	17	0	0	17	17.0	37	0	0	37	37.0	55	0	2	57	59.0
17:30 - 17:45	19	0	0	19	19.0	26	0	0	26	26.0	47	1	2	50	53.3
17:45 - 18:00	26	0	0	26	26.0	51	0	0	51	51.0	52	0	1	53	54.0
Hourly Total	83	0	0	83	83.0	167	0	0	167	167.0	192	1	7	200	208.3
18:00 - 18:15	16	0	0	16	16.0	54	0	0	54	54.0	29	0	1	30	31.0
18:15 - 18:30	15	0	0	15	15.0	48	1	0	49	50.3	32	0	3	35	38.0
18:30 - 18:45	5	0	0	5	5.0	43	0	0	43	43.0	46	0	2	48	50.0
18:45 - 19:00	11	0	0	11	11.0	45	0	0	45	45.0	25	0	1	26	27.0
Hourly Total	47	0	0	47	47.0	190	1	0	191	192.3	132	0	7	139	146.0

TOTAL	210	0	0	210	210.0	524	2	0	526	528.6	479	1	22	502	525.3
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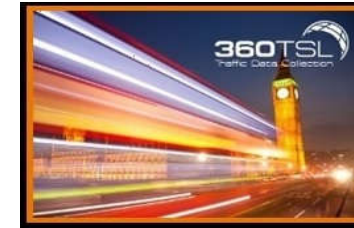
PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

542.0

450.0

Reading, Thursday 19th May 2022

Junction: 1
Approach: Oxford Road West



TIME	Left to Wigmore Lane					Ahead to Oxford Road (East)					Right to Norcot Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	90	1	0	91	92.3	61	3	0	64	67.9	2	0	0	2	2.0
07:15 - 07:30	135	3	1	139	143.9	82	0	2	84	86.0	8	0	0	8	8.0
07:30 - 07:45	152	1	0	153	154.3	111	2	0	113	115.6	2	1	0	3	4.3
07:45 - 08:00	117	2	0	119	121.6	106	2	2	110	114.6	4	0	0	4	4.0
Hourly Total	494	7	1	502	512.1	360	7	4	371	384.1	16	1	0	17	18.3
08:00 - 08:15	120	3	0	123	126.9	110	3	0	113	116.9	7	0	0	7	7.0
08:15 - 08:30	146	2	0	148	150.6	80	0	1	81	82.0	4	0	0	4	4.0
08:30 - 08:45	115	3	0	118	121.9	109	4	1	114	120.2	2	0	0	2	2.0
08:45 - 09:00	138	3	0	141	144.9	93	3	2	98	103.9	5	0	0	5	5.0
Hourly Total	519	11	0	530	544.3	392	10	4	406	423.0	18	0	0	18	18.0
09:00 - 09:15	141	1	0	142	143.3	128	4	1	133	139.2	3	1	0	4	5.3
09:15 - 09:30	120	5	0	125	131.5	107	2	1	110	113.6	5	2	0	7	9.6
09:30 - 09:45	110	4	0	114	119.2	94	2	0	96	98.6	3	1	0	4	5.3
09:45 - 10:00	123	1	0	124	125.3	97	3	1	101	105.9	5	0	0	5	5.0
Hourly Total	494	11	0	505	519.3	426	11	3	440	457.3	16	4	0	20	25.2

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

954.0

2960
28
0.9%

TOTAL	1507	29	1	1537	1575.7	1178	28	11	1217	1264.4	50	5	0	55	61.5
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16:00 - 16:15	103	2	1	106	109.6	110	0	1	111	112.0	14	0	0	14	14.0
16:15 - 16:30	105	3	0	108	111.9	107	2	1	110	113.6	22	0	0	22	22.0
16:30 - 16:45	110	1	0	111	112.3	139	1	1	141	143.3	11	0	0	11	11.0
16:45 - 17:00	88	0	0	88	88.0	86	1	1	88	90.3	12	0	0	12	12.0
Hourly Total	406	6	1	413	421.8	442	4	4	450	459.2	59	0	0	59	59.0
17:00 - 17:15	101	0	0	101	101.0	127	1	1	129	131.3	9	0	0	9	9.0
17:15 - 17:30	80	0	0	80	80.0	116	0	2	118	120.0	16	0	0	16	16.0
17:30 - 17:45	107	1	1	109	111.3	136	0	0	136	136.0	18	0	0	18	18.0
17:45 - 18:00	94	1	0	95	96.3	108	0	1	109	110.0	26	0	0	26	26.0
Hourly Total	382	2	1	385	388.6	487	1	4	492	497.3	69	0	0	69	69.0
18:00 - 18:15	114	0	0	114	114.0	115	0	1	116	117.0	11	0	0	11	11.0
18:15 - 18:30	104	1	0	105	106.3	105	0	0	105	105.0	5	0	0	5	5.0
18:30 - 18:45	88	0	0	88	88.0	95	0	2	97	99.0	14	0	0	14	14.0
18:45 - 19:00	77	0	0	77	77.0	110	0	1	111	112.0	3	0	0	3	3.0
Hourly Total	383	1	0	384	385.3	425	0	4	429	433.0	33	0	0	33	33.0

946.0

3452
40
1.2%

TOTAL	1171	9	2	1182	1195.7	1354	5	12	1371	1389.5	161	0	0	161	161.0
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Reading, Saturday 21st May 2022

Junction: 1
Approach: Wigmore Lane



	Left to Oxford Road (East)					Ahead to Norcot Road					Right to Oxford Road (West)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
11:00 - 11:15	51	0	0	51	51.0	55	0	0	55	55.0	98	0	0	98	98.0
11:15 - 11:30	57	0	0	57	57.0	58	0	0	58	58.0	96	1	0	97	98.3
11:30 - 11:45	54	1	0	55	56.3	57	1	0	58	59.3	97	1	0	98	99.3
11:45 - 12:00	50	0	0	50	50.0	61	0	0	61	61.0	119	0	0	119	119.0
Hourly Total	212	1	0	213	214.3	231	1	0	232	233.3	410	2	0	412	414.6
12:00 - 12:15	56	0	0	56	56.0	62	0	0	62	62.0	88	0	0	88	88.0
12:15 - 12:30	56	0	0	56	56.0	52	0	0	52	52.0	103	2	0	105	107.6
12:30 - 12:45	66	0	0	66	66.0	44	0	0	44	44.0	77	1	0	78	79.3
12:45 - 13:00	59	0	0	59	59.0	50	0	0	50	50.0	91	1	0	92	93.3
Hourly Total	237	0	0	237	237.0	208	0	0	208	208.0	359	4	0	363	368.2
13:00 - 13:15	71	0	0	71	71.0	73	1	0	74	75.3	111	0	0	111	111.0
13:15 - 13:30	76	1	0	77	78.3	70	0	0	70	70.0	80	1	0	81	82.3
13:30 - 13:45	65	0	0	65	65.0	56	0	0	56	56.0	93	1	0	94	95.3
13:45 - 14:00	45	1	0	46	47.3	62	0	0	62	62.0	101	0	0	101	101.0
Hourly Total	257	2	0	259	261.6	261	1	0	262	263.3	385	2	0	387	389.6
14:00 - 14:15	69	1	0	70	71.3	53	0	0	53	53.0	119	1	0	120	121.3
14:15 - 14:30	47	0	0	47	47.0	53	0	0	53	53.0	91	0	0	91	91.0
14:30 - 14:45	68	0	0	68	68.0	54	0	0	54	54.0	90	0	0	90	90.0
14:45 - 15:00	58	0	0	58	58.0	56	0	0	56	56.0	86	0	0	86	86.0
Hourly Total	242	1	0	243	244.3	216	0	0	216	216.0	386	1	0	387	388.3
TOTAL	948	4	0	952	957.2	916	2	0	918	920.6	1540	9	0	1549	1560.7

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

808.0

Reading, Saturday 21st May 2022

Junction: 1
Approach: Oxford Road East



TIME	Left to Norcot Road					Ahead to Oxford Road (West)					Right to Wigmore Lane					U-Turn				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
11:00 - 11:15	73	0	1	74	75.0	156	1	1	158	160.3	49	1	0	50	51.3	4	0	0	4	4.0
11:15 - 11:30	93	0	1	94	95.0	184	1	0	185	186.3	60	1	0	61	62.3	6	0	0	6	6.0
11:30 - 11:45	65	1	2	68	71.3	155	0	1	156	157.0	50	2	0	52	54.6	9	0	0	9	9.0
11:45 - 12:00	74	0	1	75	76.0	187	1	1	189	191.3	46	1	0	47	48.3	6	1	0	7	8.3
Hourly Total	305	1	5	311	317.3	682	3	3	688	694.9	205	5	0	210	216.5	25	1	0	26	27.3
12:00 - 12:15	87	0	2	89	91.0	170	0	1	171	172.0	61	0	0	61	61.0	8	0	0	8	8.0
12:15 - 12:30	86	0	1	87	88.0	185	0	0	185	185.0	60	0	0	60	60.0	11	0	0	11	11.0
12:30 - 12:45	98	0	1	99	100.0	184	1	1	186	188.3	56	0	0	56	56.0	10	0	0	10	10.0
12:45 - 13:00	75	0	1	76	77.0	164	3	2	169	174.9	61	0	0	61	61.0	9	0	1	10	11.0
Hourly Total	346	0	5	351	356.0	703	4	4	711	720.2	238	0	0	238	238.0	38	0	1	39	40.0
13:00 - 13:15	73	0	2	75	77.0	164	0	1	165	166.0	51	1	0	52	53.3	13	0	0	13	13.0
13:15 - 13:30	76	0	1	77	78.0	150	0	0	150	150.0	52	0	0	52	52.0	15	1	0	16	17.3
13:30 - 13:45	70	0	2	72	74.0	168	1	1	170	172.3	46	0	0	46	46.0	15	0	0	15	15.0
13:45 - 14:00	60	0	1	61	62.0	125	0	0	125	125.0	47	0	1	48	49.0	17	1	0	18	19.3
Hourly Total	279	0	6	285	291.0	607	1	2	610	613.3	196	1	1	198	200.3	60	2	0	62	64.6
14:00 - 14:15	33	0	2	35	37.0	116	1	2	119	122.3	53	0	0	53	53.0	19	0	0	19	19.0
14:15 - 14:30	72	0	2	74	76.0	128	0	0	128	128.0	49	0	0	49	49.0	8	0	0	8	8.0
14:30 - 14:45	50	0	2	52	54.0	120	1	1	122	124.3	50	0	0	50	50.0	11	0	0	11	11.0
14:45 - 15:00	53	0	1	54	55.0	143	0	2	145	147.0	49	0	0	49	49.0	10	0	0	10	10.0
Hourly Total	208	0	7	215	222.0	507	2	5	514	521.6	201	0	0	201	201.0	48	0	0	48	48.0
TOTAL	1138	1	23	1162	1186.3	2499	10	14	2523	2550.0	840	6	1	847	855.8	171	3	1	175	179.9

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

1339.0

Reading, Saturday 21st May 2022

Junction: 1
Approach: Norcot Road



	Left to Oxford Road (West)					Ahead to Wigmore Lane					Right to Oxford Road (East)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
11:00 - 11:15	27	0	0	27	27.0	56	0	0	56	56.0	65	0	2	67	69.0
11:15 - 11:30	21	0	0	21	21.0	39	0	0	39	39.0	36	0	1	37	38.0
11:30 - 11:45	23	0	0	23	23.0	46	1	0	47	48.3	57	0	2	59	61.0
11:45 - 12:00	20	0	0	20	20.0	52	0	0	52	52.0	48	1	1	50	52.3
Hourly Total	91	0	0	91	91.0	193	1	0	194	195.3	206	1	6	213	220.3
12:00 - 12:15	32	0	0	32	32.0	54	0	0	54	54.0	45	0	2	47	49.0
12:15 - 12:30	16	0	0	16	16.0	45	0	0	45	45.0	41	0	1	42	43.0
12:30 - 12:45	30	0	0	30	30.0	49	0	0	49	49.0	48	0	1	49	50.0
12:45 - 13:00	11	0	0	11	11.0	39	0	0	39	39.0	46	0	2	48	50.0
Hourly Total	89	0	0	89	89.0	187	0	0	187	187.0	180	0	6	186	192.0
13:00 - 13:15	16	0	0	16	16.0	45	1	0	46	47.3	54	1	2	57	60.3
13:15 - 13:30	13	0	0	13	13.0	40	0	0	40	40.0	40	1	1	42	44.3
13:30 - 13:45	22	0	0	22	22.0	46	0	0	46	46.0	37	0	2	39	41.0
13:45 - 14:00	12	0	1	13	14.0	64	0	0	64	64.0	65	0	1	66	67.0
Hourly Total	63	0	1	64	65.0	195	1	0	196	197.3	196	2	6	204	212.6
14:00 - 14:15	10	0	0	10	10.0	41	0	0	41	41.0	50	0	2	52	54.0
14:15 - 14:30	10	0	0	10	10.0	44	0	0	44	44.0	41	0	1	42	43.0
14:30 - 14:45	23	0	0	23	23.0	50	0	0	50	50.0	49	0	2	51	53.0
14:45 - 15:00	16	0	0	16	16.0	37	0	0	37	37.0	46	0	1	47	48.0
Hourly Total	59	0	0	59	59.0	172	0	0	172	172.0	186	0	6	192	198.0
TOTAL	302	0	1	303	304.0	747	2	0	749	751.6	768	3	24	795	822.9

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

462.0

Reading, Saturday 21st May 2022

Junction: 1
Approach: Oxford Road West



TIME	Left to Wigmore Lane					Ahead to Oxford Road (East)					Right to Norcot Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
11:00 - 11:15	105	0	0	105	105.0	112	1	1	114	116.3	21	0	0	21	21.0
11:15 - 11:30	137	1	0	138	139.3	111	1	0	112	113.3	26	1	0	27	28.3
11:30 - 11:45	135	0	0	135	135.0	96	1	2	99	102.3	13	0	0	13	13.0
11:45 - 12:00	151	0	0	151	151.0	123	1	1	125	127.3	21	0	0	21	21.0
Hourly Total	528	1	0	529	530.3	442	4	4	450	459.2	81	1	0	82	83.3
12:00 - 12:15	98	1	0	99	100.3	104	1	1	106	108.3	16	0	0	16	16.0
12:15 - 12:30	123	1	0	124	125.3	99	3	1	103	107.9	20	0	0	20	20.0
12:30 - 12:45	120	0	0	120	120.0	99	0	0	99	99.0	27	0	0	27	27.0
12:45 - 13:00	150	0	0	150	150.0	119	0	1	120	121.0	19	0	0	19	19.0
Hourly Total	491	2	0	493	495.6	421	4	3	428	436.2	82	0	0	82	82.0
13:00 - 13:15	105	2	0	107	109.6	100	0	1	101	102.0	15	0	0	15	15.0
13:15 - 13:30	120	1	0	121	122.3	91	0	0	91	91.0	15	0	0	15	15.0
13:30 - 13:45	110	0	0	110	110.0	112	1	2	115	118.3	18	0	0	18	18.0
13:45 - 14:00	122	1	0	123	124.3	103	1	1	105	107.3	15	0	0	15	15.0
Hourly Total	457	4	0	461	466.2	406	2	4	412	418.6	63	0	0	63	63.0
14:00 - 14:15	127	0	0	127	127.0	109	1	1	111	113.3	14	0	0	14	14.0
14:15 - 14:30	120	1	0	121	122.3	94	2	0	96	98.6	15	0	0	15	15.0
14:30 - 14:45	101	2	0	103	105.6	79	0	1	80	81.0	15	0	0	15	15.0
14:45 - 15:00	108	1	0	109	110.3	94	1	1	96	98.3	15	0	0	15	15.0
Hourly Total	456	4	0	460	465.2	376	4	3	383	391.2	59	0	0	59	59.0
TOTAL	1932	11	0	1943	1957.3	1645	14	14	1673	1705.2	285	1	0	286	287.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

1003.0

3612.0

29

0.8%

Appendix D: TEMPro Growth Rates & Search Criteria

**1: Select NTM Dataset:**

NTM Dataset Description	From	To
▶ RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Reading 006 (E02003394)

3. Select area type:

☐ Urban

☐ Rural

☒ All

4. Select road type:

☐ Motorway

☐ Trunk

☒ Principal

☐ Minor

☐ All

5. Select which area it serves:

☒ Region

☐ England

**Calculate the adjusted
local growth figure**

Results

Level	Area	Local Growth Figure
E02003394	Reading 006	1.0291

**1: Select NTM Dataset:**

NTM Dataset Description	From	To
▶ RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Reading 006 (E02003394)

3. Select area type:

- ☐ Urban
- ☐ Rural
- ☒ All

4. Select road type:

- ☐ Motorway
- ☐ Trunk
- ☒ Principal
- ☐ Minor
- ☐ All

5. Select which area it serves:

- ☒ Region
- ☐ England

**Calculate the adjusted
local growth figure**

Results

Level	Area	Local Growth Figure
E02003394	Reading 006	1.0299

**1: Select NTM Dataset:**

NTM Dataset Description	From	To
▶ RTF 2018 Scenario 1 - Reference	2015	2050
NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

☒ Reading 006 (E02003394)

3. Select area type:

☐ Urban

☐ Rural

☒ All

4. Select road type:

☐ Motorway

☐ Trunk

☒ Principal

☐ Minor

☐ All

5. Select which area it serves:

☒ Region

☐ England

**Calculate the adjusted
local growth figure**

Results

Level	Area	Local Growth Figure
E02003394	Reading 006	1.0324

Appendix E: Traffic Flow Diagrams



Client: Threadneedle UK Property Authorised Investment Fund
Project: Units 2 and 6, Reading Retail Park, Reading
Title: Traffic Flow Analysis
Project Code: 22-0346
Date: 28/02/2023

Prepared by: MM
Approved by: AP

TEMPPro Growth Rates - Reading 006

Weekday AM - 2022 to 2025: 1.0291
Weekday PM - 2022 to 2025: 1.0299
Saturday (All Day) - 2022 to 2025: 1.0324

Peak Periods

AM Network Peak: 08:30 to 09:30
PM Network Peak: 17:15 to 18:15
Saturday Network Peak: 11:45 to 12:45
Saturday Development Peak: 12:00 to 13:00

Traffic Flow Diagrams

TFD_01 2022 Surveyed Traffic Flows - Weekday Network AM & PM Peak Periods
TFD_02 2022 Surveyed Traffic Flows - Saturday Network & Development Peak Periods
TFD_03 2022 Surveyed Traffic Flows - Weekday Network AM & PM Peak Periods Distribution %
TFD_04 2022 Surveyed Traffic Flows - Saturday Network & Development Peak Periods Distribution %
TFD_05 2025 Horizon Traffic Flows - Weekday Network AM & PM Peak Periods
TFD_06 2025 Horizon Traffic Flows - Saturday Peak Periods
TFD_07 Forecast Trip Attraction - Weekday Network AM & PM Peak Periods
TFD_08 Forecast Trip Attraction - Saturday Network & Development Peak Periods
TFD_09 2025 Horizon Traffic Flows - Weekday Peak Periods + Forecast Trip Attraction
TFD_10 2025 Horizon Traffic Flows - Saturday Network & Development Peak Periods + Forecast Trip Attraction

Development Traffic Attraction - Proposed Food Store (Total Trips)

2013 sq.m

Time Period	Trip Rates			Trip Attraction		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak	2.923	2.249	5.172	59	45	104
PM Peak	3.926	4.466	8.492	79	90	171
Sat Op Peak	6.496	6.838	13.334	131	138	268

Development Traffic Attraction - Proposed Food Store (New Trips 26% + Diverted / Pass-by 9%, based on Recent Retail Survey)

Time Period	Trip Rates			Trip Attraction		
	Arrivals	Departures	Total	Arrivals	Departures	Total
AM Peak	n/a	n/a	n/a	21	16	36
PM Peak	n/a	n/a	n/a	28	31	60
Sat Op Peak	n/a	n/a	n/a	46	48	94

Notes

Trip rates and trip attraction has been obtained from LHA consultee response

% of new trips has been based on retail survey, which concludes that 35% of all trips to a discount retail store are either new' or existing 'diverted' or 'pass-by' trips

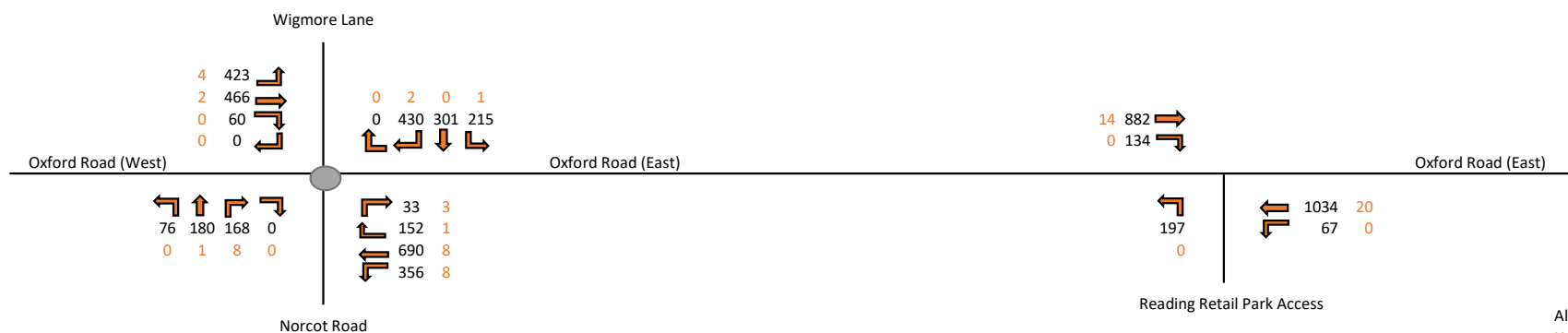
Trip Attraction between 08:00 and 09:00 and 17:00 to 18:00 have been used to inform weekday assessment scenario of 08:30 to 09:30 and 17:15 to 18:15 to provide a robust assessment

Saturday operational trip attraction has been used to inform both Saturday assessment scenarios to inform a robust assessment

08:30 to 09:30



17:15 to 18:15



Drawing Title

2022 Surveyed Traffic Flows - Weekday Network AM & PM Peak Periods

Date

28/02/2023

Project Code

22-0346

Project

Units 2 and 6, Reading Retail Park, Reading

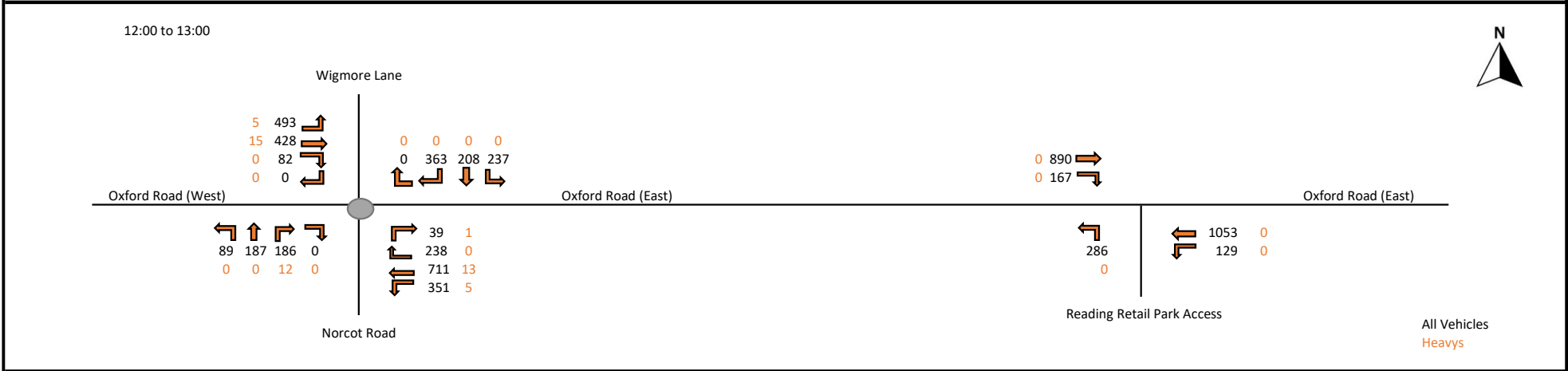
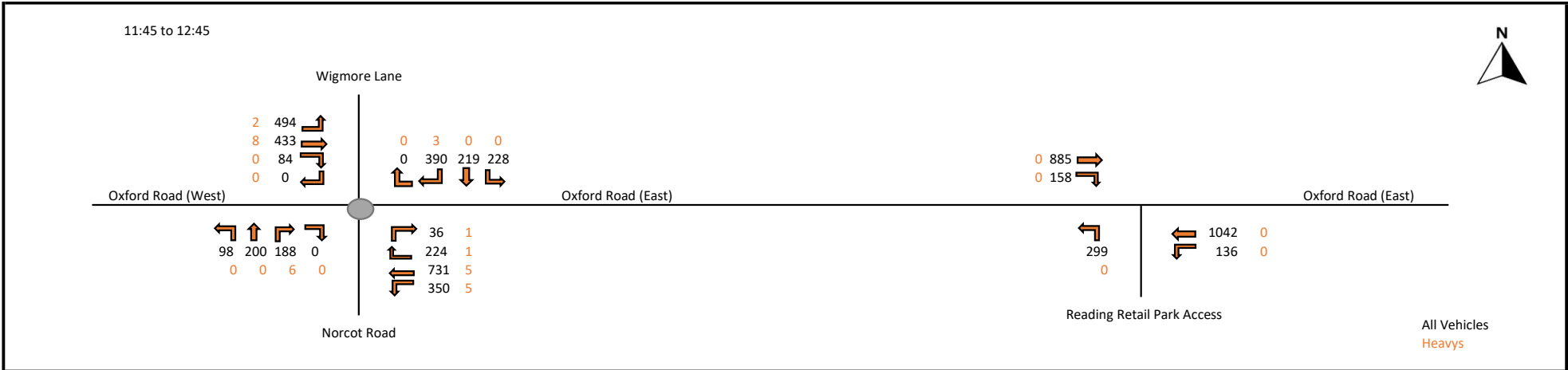
Client

Threadneedle UK Property Authorised Investment Fund

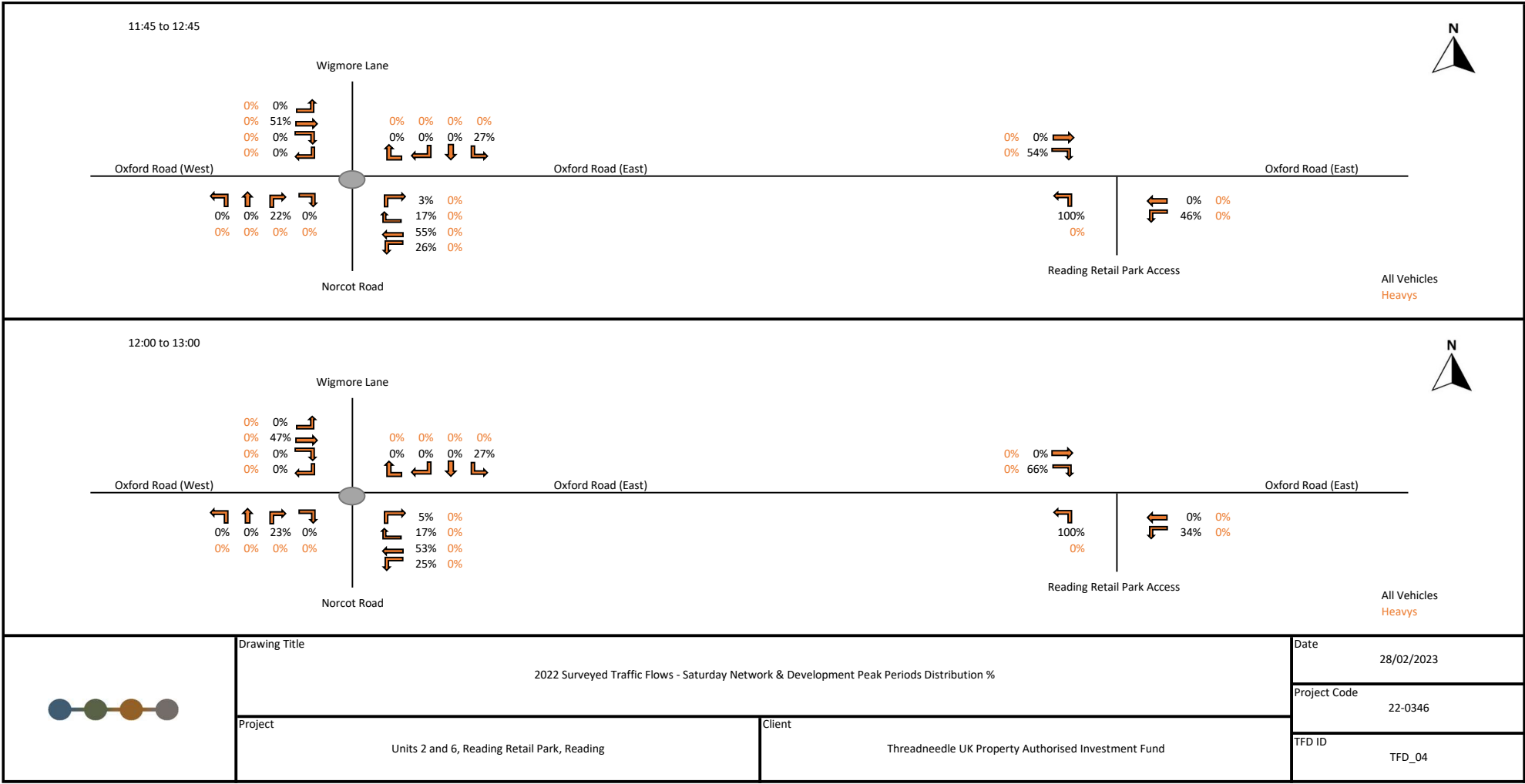
TFD ID

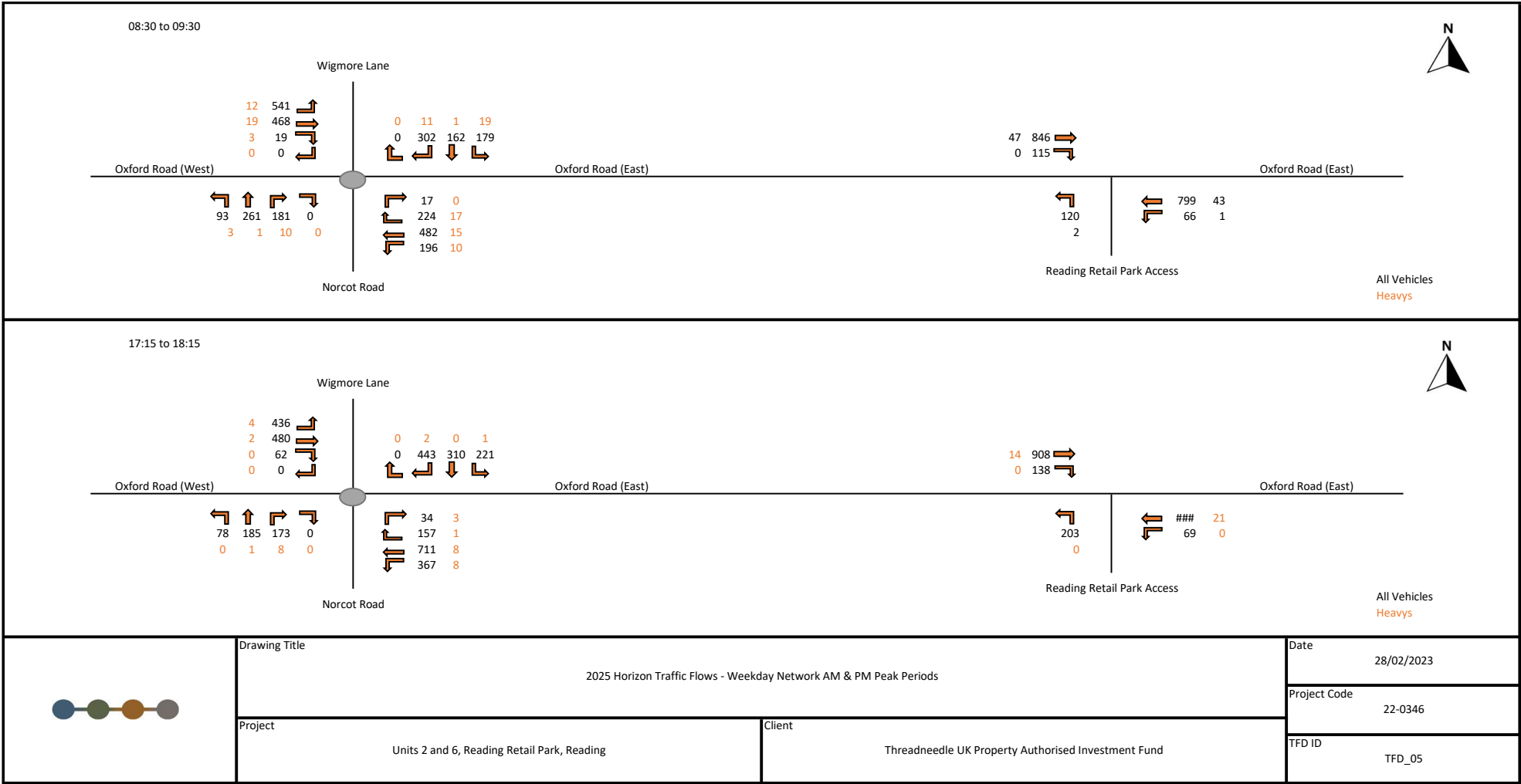
TFD_01

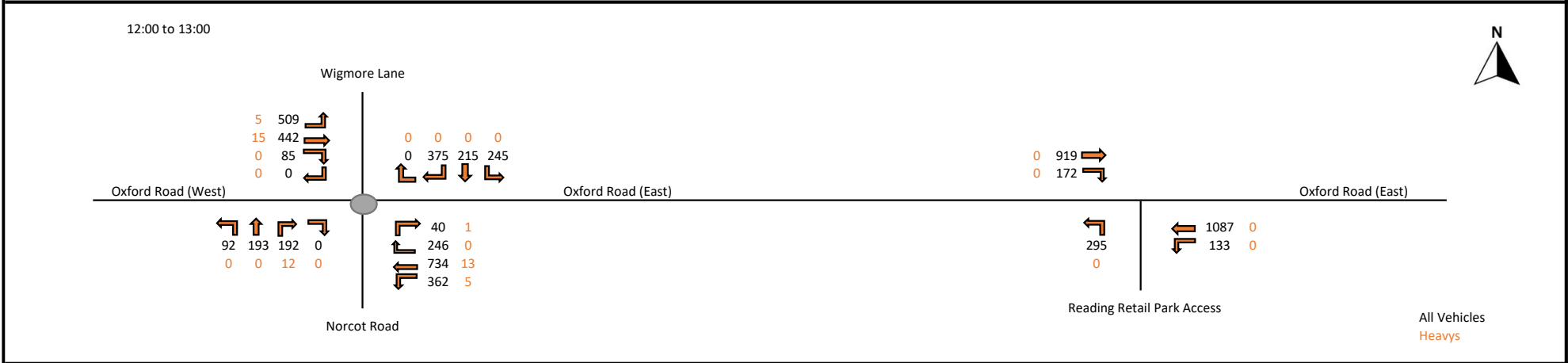
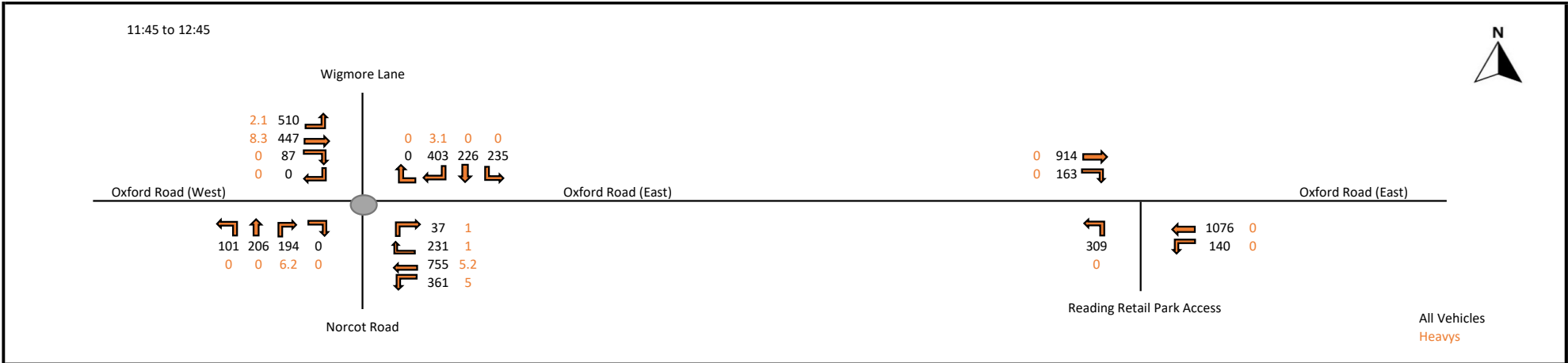




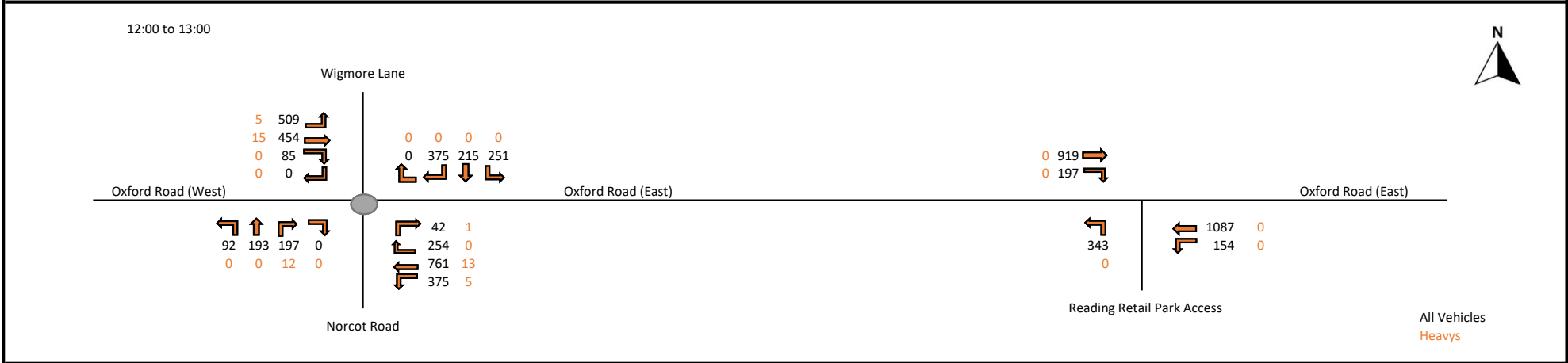
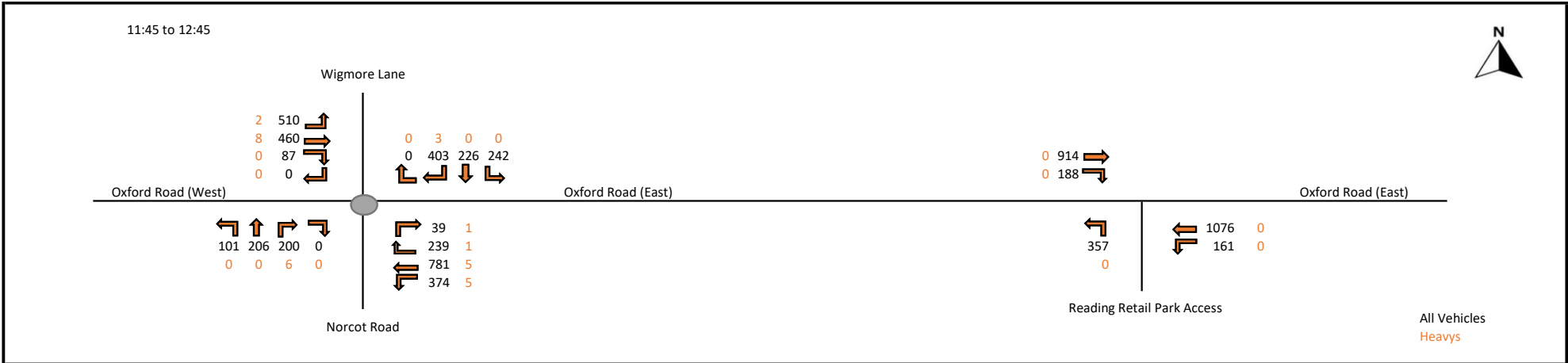
	Drawing Title		Date	28/02/2023
	2022 Surveyed Traffic Flows - Saturday Network & Development Peak Periods		Project Code	22-0346
	Project	Client	TFD ID	TFD_02
	Units 2 and 6, Reading Retail Park, Reading	Threadneedle UK Property Authorised Investment Fund		







	Drawing Title		Date
	2025 Horizon Traffic Flows - Saturday Peak Periods		28/02/2023
	Project		Project Code
	Units 2 and 6, Reading Retail Park, Reading		22-0346
Client		TFD ID	
Threadneedle UK Property Authorised Investment Fund		TFD_06	



	Drawing Title		Date
	2025 Horizon Traffic Flows - Saturday Network & Development Peak Periods + Forecast Trip Attraction		28/02/2023
	Project		Project Code
	Units 2 and 6, Reading Retail Park, Reading		22-0346
Client		TFD ID	
Threadneedle UK Property Authorised Investment Fund		TFD_10	

Appendix F: PICADY Output Reports

Junctions 10										
PICADY 10 - Priority Intersection Module										
Version: 10.0.2.1574										
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Filename: 22-0346 - Weekday JCA - Updated.j10

Path: C:\Users\Matt Mauler\Cotswold Transport Planning Ltd\Project 2022 - Documents\22-0346 - Reading Retail Park\06 Calculations\Trip Distribution\JCA\PICADY\22-0346 - Weekday JCA

Report generation date: 06/03/2023 12:54:23

»Base Year 2022, AM

»Base Year 2022, PM

»Horizon Year 2025, AM

»Horizon Year 2025, PM

»Horizon Year 2025 + Development Traffic, AM

»Horizon Year 2025 + Development Traffic, PM

Summary of junction performance

	AM					PM				
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity
	Base Year 2022									
Stream B-AC	0.4	10.48	0.27	1.14	68 %	1.1	18.19	0.52	2.22	19 %
Stream C-AB	0.3	9.12	0.24		[Stream B-AC]	0.5	12.08	0.33		[Stream B-AC]
	Horizon Year 2025									
Stream B-AC	0.4	10.79	0.28	1.18	63 %	1.2	19.74	0.55	2.38	15 %
Stream C-AB	0.3	9.39	0.25		[Stream B-AC]	0.5	12.69	0.35		[Stream B-AC]
	Horizon Year 2025 + Development Traffic									
Stream B-AC	0.5	11.39	0.32	1.36	55 %	1.7	24.38	0.64	3.17	8 %
Stream C-AB	0.4	9.81	0.28		[Stream B-AC]	0.7	13.73	0.40		[Stream B-AC]

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

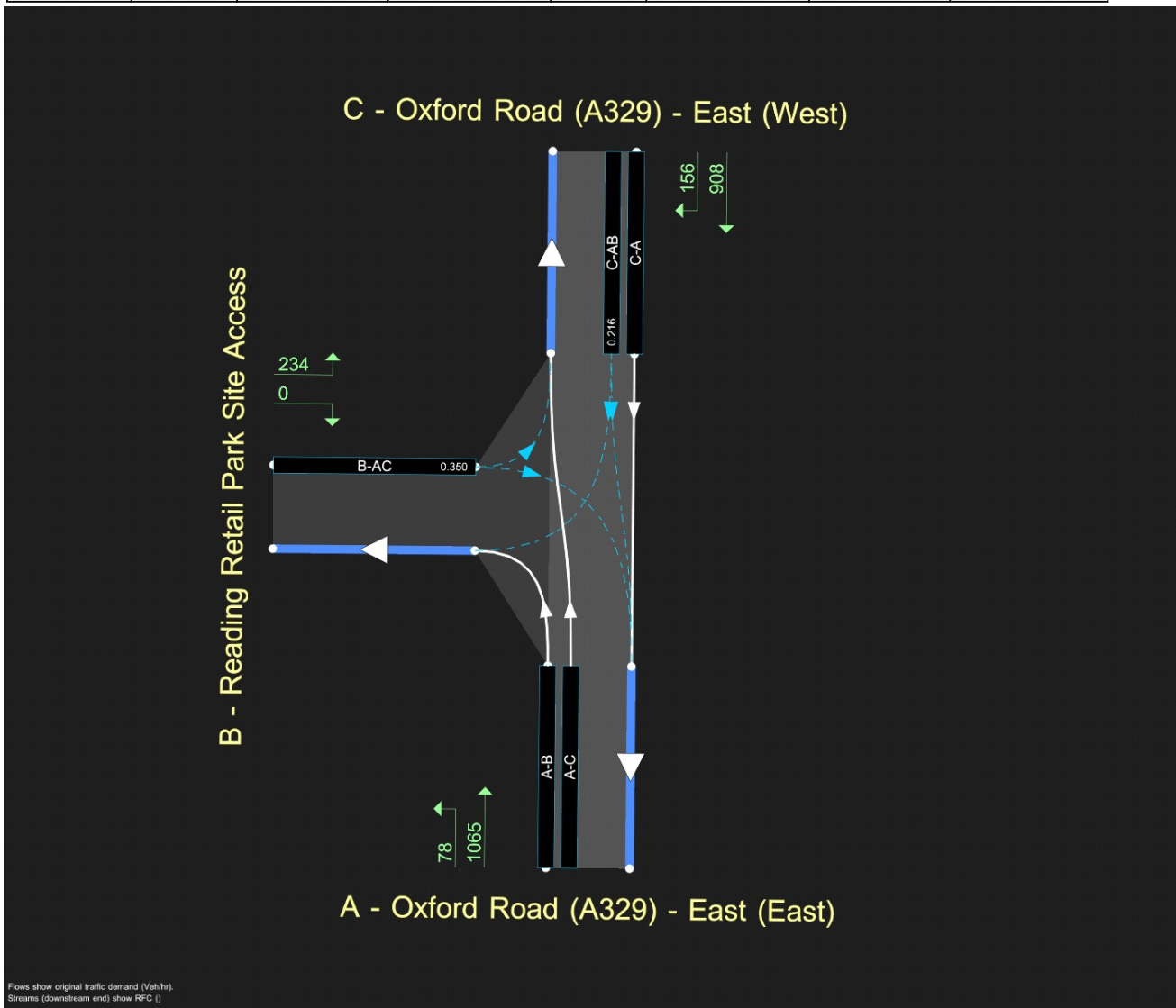
File summary

File Description

Title	Priority Junction Capacity Assessment
Location	Reading Retail Park / Oxford Road (A329)
Site number	
Date	01/03/2023
Version	ISSUE
Status	
Identifier	-
Client	Threadneedle UK Property Authorised Investment Fund
Jobnumber	22-0346
Enumerator	MM
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	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	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)
D1	Base Year 2022	AM	ONE HOUR	08:15	09:45	15
D2	Base Year 2022	PM	ONE HOUR	00:00	01:30	15
D3	Horizon Year 2025	AM	ONE HOUR	08:15	09:45	15
D4	Horizon Year 2025	PM	ONE HOUR	00:00	01:30	15
D5	Horizon Year 2025 + Development Traffic	AM	ONE HOUR	08:15	09:45	15
D6	Horizon Year 2025 + Development Traffic	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base Year 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.14	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	68	Stream B-AC	1.14	A

Arms

Arms

Arm	Name	Description	Arm type
A	Oxford Road (A329) - East (East)		Major
B	Reading Retail Park Site Access		Minor
C	Oxford Road (A329) - East (West)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Oxford Road (A329) - East (West)	8.00		✓	3.10	250.0	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Reading Retail Park Site Access	One lane	4.10	34	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	560	0.093	0.236	0.148	0.337
B-C	716	0.100	0.253	-	-
C-B	789	0.279	0.279	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

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)
D1	Base Year 2022	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	840	100.000
B - Reading Retail Park Site Access		✓	117	100.000
C - Oxford Road (A329) - East (West)		✓	934	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	64	776
	B - Reading Retail Park Site Access	0	0	117
	C - Oxford Road (A329) - East (West)	822	112	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	2	5
	B - Reading Retail Park Site Access	0	0	2
	C - Oxford Road (A329) - East (West)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.27	10.48	0.4	1.4	B
C-AB	0.24	9.12	0.3	1.4	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	88	546	0.161	87	0.2	7.844	A
C-AB	84	604	0.140	84	0.2	6.915	A
C-A	619			619			
A-B	48			48			
A-C	584			584			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	515	0.204	105	0.3	8.776	A
C-AB	101	568	0.177	100	0.2	7.704	A
C-A	739			739			
A-B	58			58			
A-C	698			698			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	472	0.273	128	0.4	10.450	B
C-AB	123	518	0.238	123	0.3	9.104	A
C-A	905			905			
A-B	70			70			
A-C	854			854			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	129	472	0.273	129	0.4	10.475	B
C-AB	123	518	0.238	123	0.3	9.123	A
C-A	905			905			
A-B	70			70			
A-C	854			854			

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	515	0.204	106	0.3	8.805	A
C-AB	101	568	0.177	101	0.2	7.722	A
C-A	739			739			
A-B	58			58			
A-C	698			698			

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	88	546	0.161	88	0.2	7.879	A
C-AB	84	604	0.140	85	0.2	6.937	A
C-A	619			619			
A-B	48			48			
A-C	584			584			

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-AB	0.21	0.00	0.00	0.21	0.21			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.31	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.03	0.31	1.25	1.36			N/A	N/A
C-AB	0.31	0.03	0.31	1.09	1.38			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.26	0.00	0.00	0.26	0.26			N/A	N/A
C-AB	0.22	0.00	0.00	0.22	0.22			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-AB	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Base Year 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.22	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	19	Stream B-AC	2.22	A

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)
D2	Base Year 2022	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1101	100.000
B - Reading Retail Park Site Access		✓	197	100.000
C - Oxford Road (A329) - East (West)		✓	1016	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	67	1034
	B - Reading Retail Park Site Access	0	0	197
	C - Oxford Road (A329) - East (West)	882	134	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	2
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.52	18.19	1.1	4.6	C
C-AB	0.33	12.08	0.5	2.2	B
C-A					
A-B					
A-C					

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	148	510	0.291	147	0.4	9.873	A
C-AB	101	554	0.182	100	0.2	7.922	A
C-A	664			664			
A-B	50			50			
A-C	778			778			

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	470	0.377	176	0.6	12.236	B
C-AB	120	508	0.237	120	0.3	9.274	A
C-A	793			793			
A-B	60			60			
A-C	930			930			

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	217	415	0.523	215	1.1	17.880	C
C-AB	148	446	0.332	147	0.5	12.025	B
C-A	971			971			
A-B	74			74			
A-C	1138			1138			

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	217	415	0.523	217	1.1	18.188	C
C-AB	148	446	0.332	148	0.5	12.080	B
C-A	971			971			
A-B	74			74			
A-C	1138			1138			

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	177	470	0.377	179	0.6	12.454	B
C-AB	120	508	0.237	121	0.3	9.326	A
C-A	793			793			
A-B	60			60			
A-C	930			930			

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	148	510	0.291	149	0.4	10.005	B
C-AB	101	554	0.182	101	0.2	7.964	A
C-A	664			664			
A-B	50			50			
A-C	778			778			

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C-AB	0.22	0.00	0.00	0.22	0.22			N/A	N/A

00:15 - 00:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.59	0.12	0.87	1.37	1.44			N/A	N/A
C-AB	0.31	0.00	0.00	0.31	0.31			N/A	N/A

00:30 - 00:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.06	0.03	0.27	1.06	1.88			N/A	N/A
C-AB	0.49	0.03	0.26	0.49	0.49			N/A	N/A

00:45 - 01:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.08	0.03	0.29	1.31	4.55			N/A	N/A
C-AB	0.49	0.03	0.31	1.42	2.16			N/A	N/A

01:00 - 01:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.62	0.06	0.61	1.36	1.46			N/A	N/A
C-AB	0.32	0.00	0.00	0.32	0.32			N/A	N/A

01:15 - 01:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.42	0.04	0.36	1.20	1.36			N/A	N/A
C-AB	0.23	0.00	0.00	0.23	0.23			N/A	N/A

Horizon Year 2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.18	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	63	Stream B-AC	1.18	A

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)
D3	Horizon Year 2025	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	865	100.000
B - Reading Retail Park Site Access		✓	120	100.000
C - Oxford Road (A329) - East (West)		✓	961	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	66	799
	B - Reading Retail Park Site Access	0	0	120
	C - Oxford Road (A329) - East (West)	846	115	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	2	5
	B - Reading Retail Park Site Access	0	0	2
	C - Oxford Road (A329) - East (West)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.28	10.79	0.4	1.5	B
C-AB	0.25	9.39	0.3	1.4	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	90	541	0.167	90	0.2	7.963	A
C-AB	87	598	0.145	86	0.2	7.021	A
C-A	637			637			
A-B	50			50			
A-C	602			602			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	108	509	0.212	108	0.3	8.957	A
C-AB	103	561	0.184	103	0.2	7.859	A
C-A	761			761			
A-B	59			59			
A-C	718			718			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	466	0.284	132	0.4	10.763	B
C-AB	127	510	0.248	126	0.3	9.373	A
C-A	931			931			
A-B	73			73			
A-C	880			880			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	466	0.284	132	0.4	10.795	B
C-AB	127	510	0.248	127	0.3	9.393	A
C-A	931			931			
A-B	73			73			
A-C	880			880			

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	108	509	0.212	108	0.3	8.991	A
C-AB	103	561	0.184	104	0.2	7.882	A
C-A	761			761			
A-B	59			59			
A-C	718			718			

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	90	541	0.167	91	0.2	8.000	A
C-AB	87	598	0.145	87	0.2	7.046	A
C-A	637			637			
A-B	50			50			
A-C	602			602			

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-AB	0.22	0.00	0.00	0.22	0.22			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.03	0.26	0.46	0.49			N/A	N/A
C-AB	0.33	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.03	0.31	1.28	1.53			N/A	N/A
C-AB	0.33	0.03	0.32	1.14	1.44			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-AB	0.23	0.00	0.00	0.23	0.23			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-AB	0.17	0.00	0.00	0.17	0.17			N/A	N/A

Horizon Year 2025, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		2.38	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	15	Stream B-AC	2.38	A

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)
D4	Horizon Year 2025	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1134	100.000
B - Reading Retail Park Site Access		✓	203	100.000
C - Oxford Road (A329) - East (West)		✓	1046	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	69	1065
	B - Reading Retail Park Site Access	0	0	203
	C - Oxford Road (A329) - East (West)	908	138	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	2
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.55	19.74	1.2	5.0	C
C-AB	0.35	12.69	0.5	2.5	B
C-A					
A-B					
A-C					

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	504	0.303	151	0.4	10.166	B
C-AB	104	547	0.190	103	0.2	8.099	A
C-A	684			684			
A-B	52			52			
A-C	802			802			

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	462	0.395	182	0.6	12.781	B
C-AB	124	500	0.248	124	0.3	9.568	A
C-A	816			816			
A-B	62			62			
A-C	957			957			

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	405	0.551	221	1.2	19.323	C
C-AB	153	436	0.350	152	0.5	12.624	B
C-A	999			999			
A-B	76			76			
A-C	1173			1173			

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	224	405	0.551	223	1.2	19.739	C
C-AB	153	436	0.350	153	0.5	12.694	B
C-A	999			999			
A-B	76			76			
A-C	1173			1173			

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	462	0.395	185	0.7	13.054	B
C-AB	124	500	0.248	125	0.3	9.629	A
C-A	816			816			
A-B	62			62			
A-C	957			957			

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	504	0.303	154	0.4	10.317	B
C-AB	104	547	0.190	104	0.2	8.147	A
C-A	684			684			
A-B	52			52			
A-C	802			802			

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.43	0.00	0.00	0.43	0.43			N/A	N/A
C-AB	0.23	0.00	0.00	0.23	0.23			N/A	N/A

00:15 - 00:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.64	0.13	0.88	1.38	1.44			N/A	N/A
C-AB	0.33	0.00	0.00	0.33	0.33			N/A	N/A

00:30 - 00:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.17	0.03	0.28	1.17	3.17			N/A	N/A
C-AB	0.53	0.03	0.26	0.53	0.53			N/A	N/A

00:45 - 01:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.20	0.03	0.29	1.38	5.05			N/A	N/A
C-AB	0.53	0.03	0.31	1.45	2.46			N/A	N/A

01:00 - 01:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.67	0.06	0.61	1.22	1.22			N/A	N/A
C-AB	0.34	0.00	0.00	0.34	0.34			N/A	N/A

01:15 - 01:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.44	0.04	0.37	1.26	1.43			N/A	N/A
C-AB	0.24	0.00	0.00	0.24	0.24			N/A	N/A

Horizon Year 2025 + Development Traffic, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		1.36	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	55	Stream B-AC	1.36	A

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)
D5	Horizon Year 2025 + Development Traffic	AM	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	872	100.000
B - Reading Retail Park Site Access		✓	136	100.000
C - Oxford Road (A329) - East (West)		✓	974	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	73	799
	B - Reading Retail Park Site Access	0	0	136
	C - Oxford Road (A329) - East (West)	846	128	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	1	5
	B - Reading Retail Park Site Access	0	0	2
	C - Oxford Road (A329) - East (West)	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.32	11.39	0.5	2.0	B
C-AB	0.28	9.81	0.4	1.4	A
C-A					
A-B					
A-C					

Main Results for each time segment

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	541	0.189	101	0.2	8.165	A
C-AB	96	597	0.162	96	0.2	7.176	A
C-A	637			637			
A-B	55			55			
A-C	602			602			

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	510	0.240	122	0.3	9.277	A
C-AB	115	559	0.206	115	0.3	8.095	A
C-A	761			761			
A-B	66			66			
A-C	718			718			

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	466	0.322	149	0.5	11.347	B
C-AB	141	508	0.278	141	0.4	9.786	A
C-A	931			931			
A-B	80			80			
A-C	880			880			

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	150	466	0.322	150	0.5	11.389	B
C-AB	141	508	0.278	141	0.4	9.811	A
C-A	931			931			
A-B	80			80			
A-C	880			880			

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	122	510	0.240	123	0.3	9.321	A
C-AB	115	559	0.206	116	0.3	8.123	A
C-A	761			761			
A-B	66			66			
A-C	718			718			

09:30 - 09:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	541	0.189	103	0.2	8.212	A
C-AB	96	597	0.162	97	0.2	7.206	A
C-A	637			637			
A-B	55			55			
A-C	602			602			

Queue Variation Results for each time segment

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-AB	0.19	0.00	0.00	0.19	0.19			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.31	0.00	0.00	0.31	0.31			N/A	N/A
C-AB	0.26	0.00	0.00	0.26	0.26			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.47	0.03	0.26	0.47	0.49			N/A	N/A
C-AB	0.38	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.47	0.03	0.31	1.38	2.01			N/A	N/A
C-AB	0.38	0.03	0.32	1.27	1.42			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C-AB	0.26	0.00	0.00	0.26	0.26			N/A	N/A

09:30 - 09:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-AB	0.19	0.00	0.00	0.19	0.19			N/A	N/A

Horizon Year 2025 + Development Traffic, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		3.17	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	8	Stream B-AC	3.17	A

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)
D6	Horizon Year 2025 + Development Traffic	PM	ONE HOUR	00:00	01:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1143	100.000
B - Reading Retail Park Site Access		✓	234	100.000
C - Oxford Road (A329) - East (West)		✓	1064	100.000

Origin-Destination Data

Demand (Veh/hr)

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	78	1065
	B - Reading Retail Park Site Access	0	0	234
	C - Oxford Road (A329) - East (West)	908	156	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	2
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.64	24.38	1.7	7.6	C
C-AB	0.40	13.73	0.7	3.1	B
C-A					
A-B					
A-C					

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	503	0.350	174	0.5	10.879	B
C-AB	117	545	0.216	116	0.3	8.385	A
C-A	684			684			
A-B	59			59			
A-C	802			802			

00:15 - 00:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	462	0.456	209	0.8	14.196	B
C-AB	140	498	0.282	140	0.4	10.052	B
C-A	816			816			
A-B	70			70			
A-C	957			957			

00:30 - 00:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	404	0.637	254	1.6	23.464	C
C-AB	173	435	0.398	172	0.7	13.624	B
C-A	998			998			
A-B	86			86			
A-C	1173			1173			

00:45 - 01:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	404	0.637	257	1.7	24.383	C
C-AB	173	435	0.398	173	0.7	13.729	B
C-A	998			998			
A-B	86			86			
A-C	1173			1173			

01:00 - 01:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	210	462	0.456	214	0.9	14.705	B
C-AB	140	498	0.282	141	0.4	10.138	B
C-A	816			816			
A-B	70			70			
A-C	957			957			

01:15 - 01:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	503	0.350	177	0.5	11.103	B
C-AB	117	545	0.216	118	0.3	8.447	A
C-A	684			684			
A-B	59			59			
A-C	802			802			

Queue Variation Results for each time segment

00:00 - 00:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.53	0.53	1.00	1.40	1.45			N/A	N/A
C-AB	0.27	0.00	0.00	0.27	0.27			N/A	N/A

00:15 - 00:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.81	0.12	0.90	1.00	1.00			N/A	N/A
C-AB	0.39	0.00	0.00	0.39	0.39			N/A	N/A

00:30 - 00:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.64	0.03	0.30	1.78	7.58			N/A	N/A
C-AB	0.65	0.03	0.26	0.65	0.65			N/A	N/A

00:45 - 01:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.69	0.03	0.29	1.69	7.36			N/A	N/A
C-AB	0.66	0.03	0.30	1.48	3.13			N/A	N/A

01:00 - 01:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.86	0.05	0.55	1.72	2.43			N/A	N/A
C-AB	0.40	0.03	0.28	0.61	1.06			N/A	N/A

01:15 - 01:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.55	0.04	0.37	1.02	1.79			N/A	N/A
C-AB	0.28	0.03	0.25	0.45	0.48			N/A	N/A

Junctions 10					
PICADY 10 - Priority Intersection Module					
Version: 10.0.2.1574					
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Filename: 22-0346 - Saturday JCA - Updated.j10

Path: C:\Users\Matt Mauler\Cotswold Transport Planning Ltd\Project 2022 - Documents\22-0346 - Reading Retail Park\06 Calculations\Trip Distribution\JCA\PICADY\22-0346 - Saturday JCA

Report generation date: 06/03/2023 13:08:02

- »Base Year 2022, Development Peak
- »Horizon Year 2025, Development Peak
- »Horizon Year 2025 + Development Traffic, Development Peak

Summary of junction performance

	Development Peak				
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity
	Base Year 2022				
Stream B-AC	3.1	37.58	0.77	5.23	-1 %
Stream C-AB	0.8	14.65	0.43		[Stream B-AC]
	Horizon Year 2025				
Stream B-AC	3.9	46.39	0.82	6.29	-4 %
Stream C-AB	0.8	15.66	0.46		[Stream B-AC]
	Horizon Year 2025 + Development Traffic				
Stream B-AC	9.7	97.95	0.95	13.78	-12 %
Stream C-AB	1.2	17.86	0.53		[Stream B-AC]

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

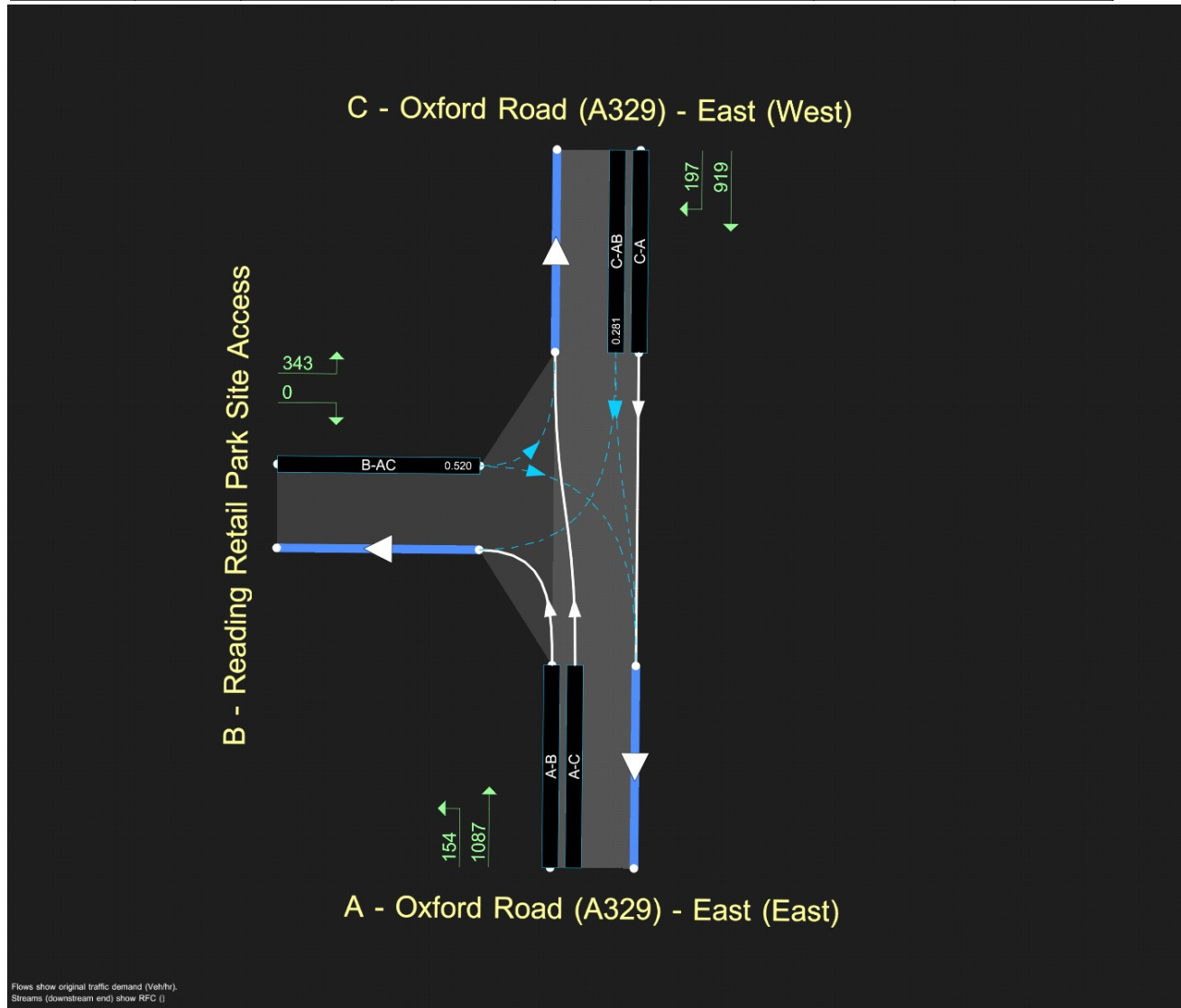
File summary

File Description

Title	Priority Junction Capacity Assessment
Location	Reading Retail Park / Oxford Road (A329)
Site number	
Date	01/03/2023
Version	ISSUE
Status	-
Identifier	
Client	Threadneedle UK Property Authorised Investment Fund
Jobnumber	22-0346
Enumerator	MM
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	Veh	Veh	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	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)
D1	Base Year 2022	Development Peak	ONE HOUR	11:45	13:15	15
D2	Horizon Year 2025	Development Peak	ONE HOUR	11:45	13:15	15
D3	Horizon Year 2025 + Development Traffic	Development Peak	ONE HOUR	11:45	13:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

Base Year 2022, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		5.23	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-1	Stream B-AC	5.23	A

Arms

Arms

Arm	Name	Description	Arm type
A	Oxford Road (A329) - East (East)		Major
B	Reading Retail Park Site Access		Minor
C	Oxford Road (A329) - East (West)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Oxford Road (A329) - East (West)	8.00		✓	3.10	250.0	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Reading Retail Park Site Access	One lane	4.10	34	33

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	560	0.093	0.236	0.148	0.337
B-C	716	0.100	0.253	-	-
C-B	789	0.279	0.279	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

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)
D1	Base Year 2022	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1182	100.000
B - Reading Retail Park Site Access		✓	286	100.000
C - Oxford Road (A329) - East (West)		✓	1057	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
From		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	129	1053
	B - Reading Retail Park Site Access	0	0	286
	C - Oxford Road (A329) - East (West)	890	167	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	0
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.77	37.58	3.1	16.4	E
C-AB	0.43	14.65	0.8	3.6	B
C-A					
A-B					
A-C					

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	505	0.426	212	0.7	12.177	B
C-AB	126	541	0.233	125	0.3	8.623	A
C-A	670			670			
A-B	97			97			
A-C	793			793			

12:00 - 12:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	257	464	0.554	255	1.2	17.051	C
C-AB	150	493	0.305	150	0.4	10.451	B
C-A	800			800			
A-B	116			116			
A-C	947			947			

12:15 - 12:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	315	408	0.772	308	2.9	33.883	D
C-AB	187	432	0.432	185	0.7	14.511	B
C-A	977			977			
A-B	142			142			
A-C	1159			1159			

12:30 - 12:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	315	408	0.772	314	3.1	37.577	E
C-AB	187	432	0.432	187	0.8	14.654	B
C-A	977			977			
A-B	142			142			
A-C	1159			1159			

12:45 - 13:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	257	464	0.554	264	1.3	18.596	C
C-AB	150	493	0.305	152	0.4	10.578	B
C-A	800			800			
A-B	116			116			
A-C	947			947			

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	505	0.426	217	0.8	12.599	B
C-AB	126	541	0.233	126	0.3	8.697	A
C-A	670			670			
A-B	97			97			
A-C	793			793			

Queue Variation Results for each time segment

11:45 - 12:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.73	0.55	1.00	1.40	1.45			N/A	N/A
C-AB	0.30	0.00	0.00	0.30	0.30			N/A	N/A

12:00 - 12:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.19	0.09	1.01	2.06	2.80			N/A	N/A
C-AB	0.43	0.00	0.00	0.43	0.43			N/A	N/A

12:15 - 12:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	2.92	0.04	0.38	7.58	15.39			N/A	N/A
C-AB	0.75	0.03	0.26	0.75	0.75			N/A	N/A

12:30 - 12:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	3.11	0.03	0.32	5.60	16.37			N/A	N/A
C-AB	0.76	0.03	0.30	1.47	3.61			N/A	N/A

12:45 - 13:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.29	0.04	0.42	3.32	5.47			N/A	N/A
C-AB	0.45	0.04	0.36	1.17	1.34			N/A	N/A

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.76	0.03	0.33	1.70	3.59			N/A	N/A
C-AB	0.31	0.03	0.26	0.48	0.60			N/A	N/A

Horizon Year 2025, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Prioty Junction	T-Junction	Two-way	Two-way	Two-way		6.29	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-4	Stream B-AC	6.29	A

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)
D2	Horizon Year 2025	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1220	100.000
B - Reading Retail Park Site Access		✓	295	100.000
C - Oxford Road (A329) - East (West)		✓	1091	100.000

Origin-Destination Data

Demand (Veh/hr)

	To		
	A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
From			
A - Oxford Road (A329) - East (East)	0	133	1087
B - Reading Retail Park Site Access	0	0	295
C - Oxford Road (A329) - East (West)	919	172	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	0
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.82	46.39	3.9	21.3	E
C-AB	0.46	15.66	0.8	3.9	C
C-A					
A-B					
A-C					

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	498	0.446	219	0.8	12.743	B
C-AB	130	533	0.243	128	0.3	8.870	A
C-A	692			692			
A-B	100			100			
A-C	818			818			

12:00 - 12:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	456	0.581	263	1.3	18.411	C
C-AB	155	484	0.320	154	0.5	10.904	B
C-A	826			826			
A-B	120			120			
A-C	977			977			

12:15 - 12:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	398	0.816	316	3.6	39.995	E
C-AB	194	423	0.457	192	0.8	15.473	C
C-A	1008			1008			
A-B	146			146			
A-C	1197			1197			

12:30 - 12:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	325	398	0.816	323	3.9	46.389	E
C-AB	194	423	0.457	194	0.8	15.659	C
C-A	1008			1008			
A-B	146			146			
A-C	1197			1197			

12:45 - 13:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	265	456	0.581	275	1.5	20.825	C
C-AB	155	484	0.320	156	0.5	11.040	B
C-A	826			826			
A-B	120			120			
A-C	977			977			

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	222	498	0.446	225	0.8	13.260	B
C-AB	130	533	0.243	130	0.3	8.953	A
C-A	692			692			
A-B	100			100			
A-C	818			818			

Queue Variation Results for each time segment

11:45 - 12:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.78	0.55	1.00	1.40	1.45			N/A	N/A
C-AB	0.32	0.00	0.00	0.32	0.32			N/A	N/A

12:00 - 12:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.33	0.08	1.03	2.61	3.49			N/A	N/A
C-AB	0.46	0.00	0.00	0.46	0.46			N/A	N/A

12:15 - 12:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	3.58	0.04	0.45	10.05	17.92			N/A	N/A
C-AB	0.83	0.03	0.26	0.83	0.83			N/A	N/A

12:30 - 12:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	3.92	0.04	0.36	9.04	21.26			N/A	N/A
C-AB	0.85	0.03	0.29	1.48	3.95			N/A	N/A

12:45 - 13:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.45	0.04	0.40	3.82	6.64			N/A	N/A
C-AB	0.48	0.04	0.42	1.26	1.38			N/A	N/A

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.82	0.03	0.31	1.65	4.00			N/A	N/A
C-AB	0.33	0.03	0.28	0.68	1.09			N/A	N/A

Horizon Year 2025 + Development Traffic, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Reading Retail Park Access / Oxford Road (A329) Priority Junction	T-Junction	Two-way	Two-way	Two-way		13.78	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-12	Stream B-AC	13.78	B

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)
D3	Horizon Year 2025 + Development Traffic	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East (East)		✓	1241	100.000
B - Reading Retail Park Site Access		✓	343	100.000
C - Oxford Road (A329) - East (West)		✓	1116	100.000

Origin-Destination Data

Demand (Veh/hr)

	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
From	A - Oxford Road (A329) - East (East)	0	154	1087
	B - Reading Retail Park Site Access	0	0	343
	C - Oxford Road (A329) - East (West)	919	197	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Oxford Road (A329) - East (East)	B - Reading Retail Park Site Access	C - Oxford Road (A329) - East (West)
	A - Oxford Road (A329) - East (East)	0	0	0
	B - Reading Retail Park Site Access	0	0	0
	C - Oxford Road (A329) - East (West)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
B-AC	0.95	97.95	9.7	40.4	F
C-AB	0.53	17.86	1.2	5.3	C
C-A					
A-B					
A-C					

Main Results for each time segment

11:45 - 12:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	497	0.520	254	1.0	14.586	B
C-AB	148	529	0.281	147	0.4	9.392	A
C-A	692			692			
A-B	116			116			
A-C	818			818			

12:00 - 12:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	308	454	0.679	305	2.0	23.464	C
C-AB	178	480	0.371	177	0.6	11.860	B
C-A	825			825			
A-B	138			138			
A-C	977			977			

12:15 - 12:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	378	396	0.954	355	7.5	67.248	F
C-AB	229	431	0.532	227	1.1	17.505	C
C-A	1000			1000			
A-B	170			170			
A-C	1197			1197			

12:30 - 12:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	378	396	0.954	369	9.7	97.954	F
C-AB	229	431	0.532	229	1.2	17.864	C
C-A	1000			1000			
A-B	170			170			
A-C	1197			1197			

12:45 - 13:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	308	454	0.679	338	2.3	36.905	E
C-AB	178	480	0.371	180	0.6	12.102	B
C-A	825			825			
A-B	138			138			
A-C	977			977			

13:00 - 13:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	258	497	0.520	263	1.1	15.683	C
C-AB	148	529	0.281	149	0.4	9.508	A
C-A	692			692			
A-B	116			116			
A-C	818			818			

Queue Variation Results for each time segment

11:45 - 12:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.05	0.55	1.02	1.45	1.50			N/A	N/A
C-AB	0.38	0.00	0.00	0.38	0.38			N/A	N/A

12:00 - 12:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.96	0.08	1.15	4.58	6.46			N/A	N/A
C-AB	0.58	0.10	0.83	1.37	1.43			N/A	N/A

12:15 - 12:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	7.54	0.15	3.46	19.15	26.72			N/A	N/A
C-AB	1.14	0.03	0.27	1.14	2.61			N/A	N/A

12:30 - 12:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	9.73	0.10	2.84	27.10	40.37			N/A	N/A
C-AB	1.17	0.03	0.29	1.17	5.29			N/A	N/A

12:45 - 13:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	2.30	0.04	0.38	6.03	11.83			N/A	N/A
C-AB	0.60	0.05	0.58	1.35	1.45			N/A	N/A

13:00 - 13:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	1.12	0.03	0.29	1.12	5.05			N/A	N/A
C-AB	0.40	0.03	0.35	1.17	1.35			N/A	N/A

Appendix G: ARCADY Output Reports

Junctions 10										
ARCADY 10 - Roundabout Module										
Version: 10.0.2.1574 © Copyright TRL Software Limited, 2021										
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Filename: 22-0346 - Weekday JCA - Updated.j10

Path: C:\Users\Matt Mauler\Cotswold Transport Planning Ltd\Project 2022 - Documents\22-0346 - Reading Retail Park\06 Calculations\Trip Distribution\JCA\ARCADY\22-0346 - Weekday JCA

Report generation date: 06/03/2023 13:23:32

»Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, AM Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, PM Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, AM Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, PM Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025 + Development Traffic, AM Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025 + Development Traffic, PM Peak

Summary of junction performance

	AM Peak					PM Peak				
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022									
A - Oxford Road (A329) - East	1.1	3.89	0.51	6.46	17 % [B - Norcot Road]	3.8	10.30	0.80	9.57	10 % [B - Norcot Road]
B - Norcot Road	1.8	11.54	0.65			1.9	15.39	0.67		
C - Oxford Road (A329) - West	2.1	6.81	0.68			1.4	4.82	0.58		
D - Wigmore Lane	1.0	5.44	0.51			3.0	10.73	0.76		
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025									
A - Oxford Road (A329) - East	1.1	4.07	0.53	7.05	13 % [B - Norcot Road]	4.7	12.48	0.83	11.25	7 % [B - Norcot Road]
B - Norcot Road	2.1	13.08	0.68			2.4	18.54	0.71		
C - Oxford Road (A329) - West	2.3	7.47	0.70			1.5	5.13	0.61		
D - Wigmore Lane	1.1	5.74	0.53			3.6	12.45	0.79		
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025 + Development Traffic									
A - Oxford Road (A329) - East	1.2	4.14	0.54	7.26	12 % [B - Norcot Road]	5.4	14.00	0.85	12.24	5 % [B - Norcot Road]
B - Norcot Road	2.2	13.67	0.69			2.6	20.42	0.74		
C - Oxford Road (A329) - West	2.4	7.71	0.71			1.6	5.26	0.61		
D - Wigmore Lane	1.1	5.85	0.54			3.8	13.18	0.80		

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

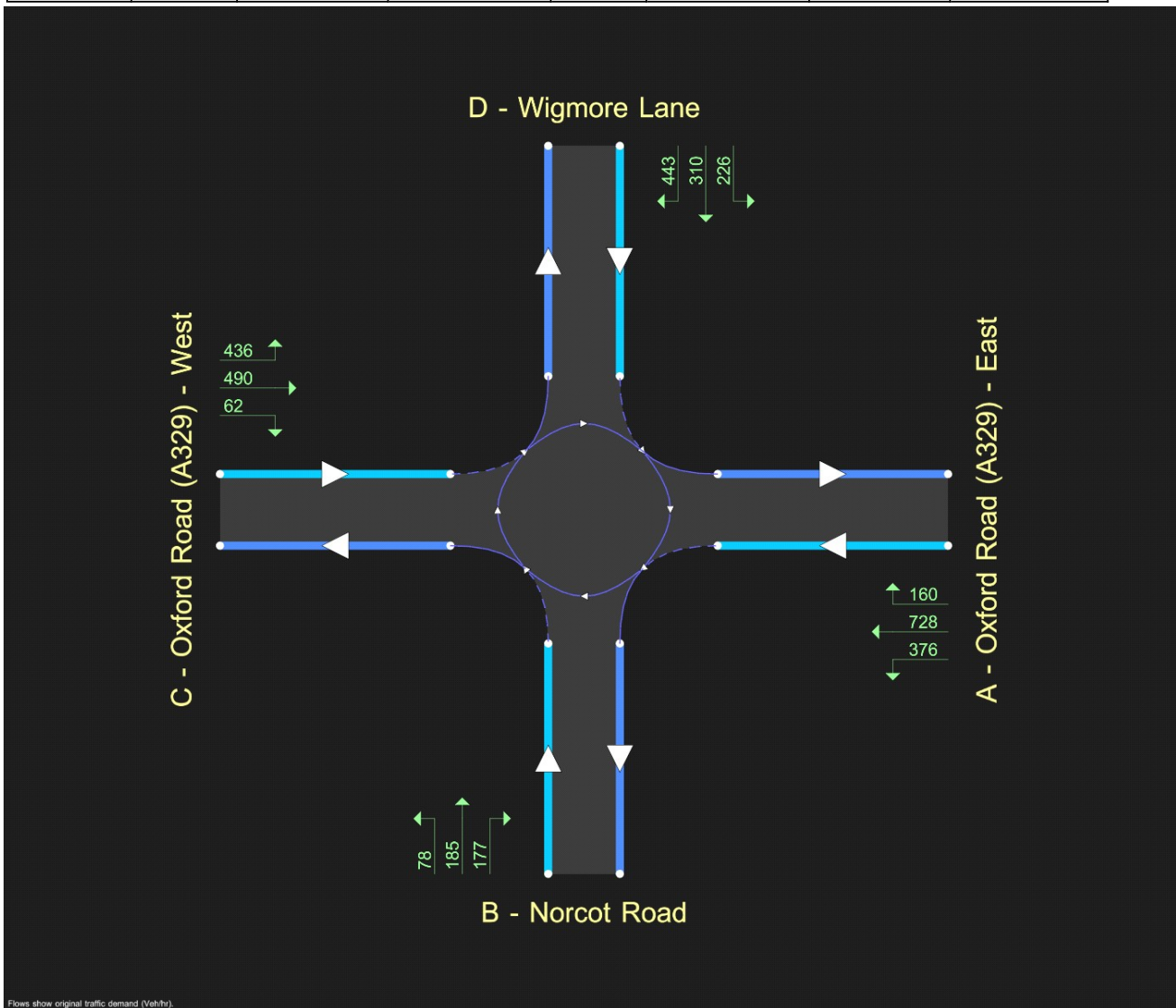
File summary

File Description

Title	Junction Capacity Assessment
Location	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction
Site number	
Date	01/03/2023
Version	ISSUE
Status	-
Identifier	-
Client	Threadneedle UK Property Authorised Investment Fund
Jobnumber	22-0346
Enumerator	MM
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	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	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)
D1	Base Year 2022	AM Peak	ONE HOUR	08:15	09:45	15
D2	Base Year 2022	PM Peak	ONE HOUR	17:00	18:30	15
D3	Horizon Year 2025	AM Peak	ONE HOUR	08:15	09:45	15
D4	Horizon Year 2025	PM Peak	ONE HOUR	17:00	18:30	15
D5	Horizon Year 2025 + Development Traffic	AM Peak	ONE HOUR	08:15	09:45	15
D6	Horizon Year 2025 + Development Traffic	PM Peak	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	100.000

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	6.46	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	17	B - Norcot Road	6.46	A

Arms

Arms

Arm	Name	Description	No give-way line
A	Oxford Road (A329) - East		
B	Norcot Road		
C	Oxford Road (A329) - West		
D	Wigmore Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - Oxford Road (A329) - East	5.60	7.94	17.4	77.0	47.9	11.0		
B - Norcot Road	2.98	6.60	13.8	57.5	47.9	15.0		
C - Oxford Road (A329) - West	4.78	7.89	20.7	265.9	47.9	20.0		
D - Wigmore Lane	4.05	9.55	12.1	20.4	47.9	28.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Oxford Road (A329) - East	0.784	2416
B - Norcot Road	0.627	1625
C - Oxford Road (A329) - West	0.746	2251
D - Wigmore Lane	0.662	1921

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)
D1	Base Year 2022	AM Peak	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	893	100.000
B - Norcot Road		✓	520	100.000
C - Oxford Road (A329) - West		✓	999	100.000
D - Wigmore Lane		✓	624	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	17	190	468	218
	B - Norcot Road	176	0	90	254
	C - Oxford Road (A329) - West	455	18	0	526
	D - Wigmore Lane	174	157	293	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	0	5	3	8
	B - Norcot Road	6	0	3	0
	C - Oxford Road (A329) - West	4	17	0	2
	D - Wigmore Lane	10	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.51	3.89	1.1	1.5	A
B - Norcot Road	0.65	11.54	1.8	4.3	B
C - Oxford Road (A329) - West	0.68	6.81	2.1	3.2	A
D - Wigmore Lane	0.51	5.44	1.0	1.9	A

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	672	351	2037	0.330	670	0.5	2.632	A
B - Norcot Road	391	747	1106	0.354	389	0.5	5.006	A
C - Oxford Road (A329) - West	752	498	1804	0.417	749	0.7	3.405	A
D - Wigmore Lane	470	499	1503	0.313	468	0.5	3.472	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	803	420	1983	0.405	802	0.7	3.047	A
B - Norcot Road	467	894	1013	0.462	466	0.8	6.574	A
C - Oxford Road (A329) - West	898	597	1730	0.519	897	1.1	4.312	A
D - Wigmore Lane	561	598	1438	0.390	560	0.6	4.097	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	983	514	1910	0.515	982	1.1	3.870	A
B - Norcot Road	573	1095	885	0.647	569	1.8	11.254	B
C - Oxford Road (A329) - West	1100	729	1631	0.675	1096	2.0	6.687	A
D - Wigmore Lane	687	730	1350	0.509	685	1.0	5.397	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	983	515	1910	0.515	983	1.1	3.886	A
B - Norcot Road	573	1097	884	0.648	572	1.8	11.544	B
C - Oxford Road (A329) - West	1100	732	1628	0.676	1100	2.1	6.809	A
D - Wigmore Lane	687	733	1348	0.510	687	1.0	5.442	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	803	422	1982	0.405	804	0.7	3.063	A
B - Norcot Road	467	897	1011	0.462	471	0.9	6.715	A
C - Oxford Road (A329) - West	898	601	1727	0.520	902	1.1	4.386	A
D - Wigmore Lane	561	602	1435	0.391	563	0.6	4.131	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	672	353	2035	0.330	673	0.5	2.646	A
B - Norcot Road	391	751	1104	0.355	393	0.6	5.068	A
C - Oxford Road (A329) - West	752	502	1801	0.418	754	0.7	3.439	A
D - Wigmore Lane	470	503	1501	0.313	471	0.5	3.495	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B - Norcot Road	0.54	0.54	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.71	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.45	0.00	0.00	0.45	0.45			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.68	0.08	0.78	1.37	1.45			N/A	N/A
B - Norcot Road	0.85	0.07	0.80	1.32	1.75			N/A	N/A
C - Oxford Road (A329) - West	1.07	0.06	0.68	2.24	3.17			N/A	N/A
D - Wigmore Lane	0.63	0.09	0.80	1.36	1.43			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.05	0.03	0.26	1.05	1.05			N/A	N/A
B - Norcot Road	1.77	0.03	0.28	1.77	4.20			N/A	N/A
C - Oxford Road (A329) - West	2.03	0.03	0.27	2.03	2.03			N/A	N/A
D - Wigmore Lane	1.02	0.03	0.26	1.02	1.02			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.06	0.03	0.27	1.06	1.43			N/A	N/A
B - Norcot Road	1.81	0.03	0.28	1.81	4.34			N/A	N/A
C - Oxford Road (A329) - West	2.06	0.03	0.27	2.06	2.06			N/A	N/A
D - Wigmore Lane	1.03	0.03	0.27	1.03	1.87			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.68	0.55	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.87	0.07	0.80	1.45	1.85			N/A	N/A
C - Oxford Road (A329) - West	1.09	0.11	1.01	1.76	2.14			N/A	N/A
D - Wigmore Lane	0.65	0.23	0.94	1.39	1.44			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.50	0.05	0.46	1.28	1.39			N/A	N/A
B - Norcot Road	0.55	0.04	0.41	1.43	1.47			N/A	N/A
C - Oxford Road (A329) - West	0.72	0.05	0.52	1.24	1.77			N/A	N/A
D - Wigmore Lane	0.46	0.04	0.37	1.20	1.35			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	9.57	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	10	B - Norcot Road	9.57	A

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)
D2	Base Year 2022	PM Peak	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1231	100.000
B - Norcot Road		✓	424	100.000
C - Oxford Road (A329) - West		✓	949	100.000
D - Wigmore Lane		✓	946	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	33	356	690	152
	B - Norcot Road	168	0	76	180
	C - Oxford Road (A329) - West	466	60	0	423
	D - Wigmore Lane	215	301	430	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	9	2	1	1
	B - Norcot Road	5	0	0	1
	C - Oxford Road (A329) - West	0	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.80	10.30	3.8	15.4	B
B - Norcot Road	0.67	15.39	1.9	7.1	C
C - Oxford Road (A329) - West	0.58	4.82	1.4	1.7	A
D - Wigmore Lane	0.76	10.73	3.0	11.3	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	927	593	1918	0.483	923	0.9	3.603	A
B - Norcot Road	319	978	984	0.324	317	0.5	5.384	A
C - Oxford Road (A329) - West	714	399	1934	0.369	712	0.6	2.942	A
D - Wigmore Lane	712	545	1547	0.460	709	0.8	4.277	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1107	709	1828	0.605	1104	1.5	4.958	A
B - Norcot Road	381	1171	865	0.441	380	0.8	7.409	A
C - Oxford Road (A329) - West	853	478	1874	0.455	852	0.8	3.519	A
D - Wigmore Lane	850	652	1475	0.577	848	1.3	5.726	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1355	866	1707	0.794	1347	3.7	9.769	A
B - Norcot Road	467	1428	705	0.662	462	1.9	14.581	B
C - Oxford Road (A329) - West	1045	582	1795	0.582	1043	1.4	4.772	A
D - Wigmore Lane	1042	797	1378	0.756	1035	3.0	10.306	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1355	871	1703	0.796	1355	3.8	10.302	B
B - Norcot Road	467	1436	700	0.667	467	1.9	15.391	C
C - Oxford Road (A329) - West	1045	587	1792	0.583	1045	1.4	4.820	A
D - Wigmore Lane	1042	800	1376	0.757	1041	3.0	10.729	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1107	716	1823	0.607	1116	1.6	5.154	A
B - Norcot Road	381	1182	857	0.445	386	0.8	7.703	A
C - Oxford Road (A329) - West	853	484	1869	0.456	855	0.8	3.559	A
D - Wigmore Lane	850	657	1472	0.578	857	1.4	5.915	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	927	597	1915	0.484	929	0.9	3.660	A
B - Norcot Road	319	985	980	0.326	321	0.5	5.472	A
C - Oxford Road (A329) - West	714	403	1931	0.370	715	0.6	2.963	A
D - Wigmore Lane	712	548	1545	0.461	714	0.9	4.346	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.93	0.55	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.48	0.00	0.00	0.48	0.48			N/A	N/A
C - Oxford Road (A329) - West	0.58	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.85	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.51	0.04	0.45	3.93	6.42			N/A	N/A
B - Norcot Road	0.78	0.07	0.75	1.00	1.57			N/A	N/A
C - Oxford Road (A329) - West	0.83	0.07	0.78	1.27	1.73			N/A	N/A
D - Wigmore Lane	1.34	0.05	0.57	3.23	4.85			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	3.66	0.03	0.30	3.66	15.36			N/A	N/A
B - Norcot Road	1.87	0.03	0.29	1.87	6.68			N/A	N/A
C - Oxford Road (A329) - West	1.38	0.03	0.26	1.38	1.38			N/A	N/A
D - Wigmore Lane	2.96	0.03	0.29	2.96	11.33			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	3.78	0.03	0.28	3.78	6.74			N/A	N/A
B - Norcot Road	1.95	0.03	0.29	1.95	7.10			N/A	N/A
C - Oxford Road (A329) - West	1.39	0.03	0.26	1.39	1.39			N/A	N/A
D - Wigmore Lane	3.04	0.03	0.27	3.04	5.08			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.57	0.06	0.80	3.76	5.52			N/A	N/A
B - Norcot Road	0.81	0.06	0.68	1.42	1.87			N/A	N/A
C - Oxford Road (A329) - West	0.85	0.37	0.97	1.41	1.46			N/A	N/A
D - Wigmore Lane	1.39	0.06	0.83	3.10	4.50			N/A	N/A

18:15 - 18:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.95	0.04	0.37	2.33	4.08			N/A	N/A
B - Norcot Road	0.49	0.04	0.37	1.40	1.46			N/A	N/A
C - Oxford Road (A329) - West	0.59	0.06	0.67	1.34	1.42			N/A	N/A
D - Wigmore Lane	0.86	0.04	0.39	2.00	3.42			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	7.05	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	13	B - Norcot Road	7.05	A

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)
D3	Horizon Year 2025	AM Peak	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	919	100.000
B - Norcot Road		✓	535	100.000
C - Oxford Road (A329) - West		✓	1028	100.000
D - Wigmore Lane		✓	643	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	17	196	482	224
	B - Norcot Road	181	0	93	261
	C - Oxford Road (A329) - West	468	19	0	541
	D - Wigmore Lane	179	162	302	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	0	5	3	8
	B - Norcot Road	6	0	3	0
	C - Oxford Road (A329) - West	4	17	0	2
	D - Wigmore Lane	10	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.53	4.07	1.1	1.5	A
B - Norcot Road	0.68	13.08	2.1	7.0	B
C - Oxford Road (A329) - West	0.70	7.47	2.3	3.8	A
D - Wigmore Lane	0.53	5.74	1.1	1.7	A

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	692	362	2028	0.341	690	0.5	2.687	A
B - Norcot Road	403	769	1092	0.369	400	0.6	5.186	A
C - Oxford Road (A329) - West	774	512	1794	0.431	771	0.8	3.509	A
D - Wigmore Lane	484	513	1494	0.324	482	0.5	3.553	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	826	434	1973	0.419	825	0.7	3.137	A
B - Norcot Road	481	920	996	0.483	480	0.9	6.952	A
C - Oxford Road (A329) - West	924	613	1718	0.538	923	1.2	4.517	A
D - Wigmore Lane	578	615	1427	0.405	577	0.7	4.234	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1012	530	1898	0.533	1010	1.1	4.049	A
B - Norcot Road	589	1126	865	0.681	585	2.0	12.644	B
C - Oxford Road (A329) - West	1132	748	1616	0.700	1127	2.3	7.299	A
D - Wigmore Lane	708	751	1337	0.530	706	1.1	5.690	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1012	532	1897	0.533	1012	1.1	4.068	A
B - Norcot Road	589	1129	864	0.682	589	2.1	13.081	B
C - Oxford Road (A329) - West	1132	752	1613	0.702	1132	2.3	7.470	A
D - Wigmore Lane	708	754	1335	0.530	708	1.1	5.743	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	826	436	1971	0.419	828	0.7	3.152	A
B - Norcot Road	481	924	994	0.484	486	1.0	7.140	A
C - Oxford Road (A329) - West	924	618	1714	0.539	929	1.2	4.612	A
D - Wigmore Lane	578	620	1424	0.406	580	0.7	4.276	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	692	364	2026	0.341	693	0.5	2.702	A
B - Norcot Road	403	773	1090	0.369	404	0.6	5.260	A
C - Oxford Road (A329) - West	774	516	1791	0.432	776	0.8	3.550	A
D - Wigmore Lane	484	517	1491	0.325	485	0.5	3.578	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.52	0.52	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.58	0.55	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.75	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.48	0.00	0.00	0.48	0.48			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.72	0.08	0.78	1.40	1.48			N/A	N/A
B - Norcot Road	0.92	0.07	0.79	1.64	2.01			N/A	N/A
C - Oxford Road (A329) - West	1.15	0.05	0.62	2.61	3.78			N/A	N/A
D - Wigmore Lane	0.68	0.09	0.81	1.37	1.44			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.13	0.03	0.26	1.13	1.13			N/A	N/A
B - Norcot Road	2.05	0.03	0.28	2.05	6.99			N/A	N/A
C - Oxford Road (A329) - West	2.28	0.03	0.27	2.28	3.61			N/A	N/A
D - Wigmore Lane	1.11	0.03	0.26	1.11	1.11			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.14	0.03	0.27	1.14	1.25			N/A	N/A
B - Norcot Road	2.10	0.03	0.28	2.10	5.67			N/A	N/A
C - Oxford Road (A329) - West	2.32	0.03	0.27	2.32	2.32			N/A	N/A
D - Wigmore Lane	1.12	0.03	0.27	1.12	1.70			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.73	0.55	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.95	0.06	0.76	1.77	2.42			N/A	N/A
C - Oxford Road (A329) - West	1.18	0.09	1.01	2.00	2.76			N/A	N/A
D - Wigmore Lane	0.69	0.22	0.94	1.39	1.44			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.52	0.05	0.58	1.32	1.41			N/A	N/A
B - Norcot Road	0.59	0.04	0.39	1.14	1.84			N/A	N/A
C - Oxford Road (A329) - West	0.77	0.05	0.47	1.54	2.13			N/A	N/A
D - Wigmore Lane	0.48	0.04	0.43	1.26	1.38			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	11.25	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	7	B - Norcot Road	11.25	B

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)
D4	Horizon Year 2025	PM Peak	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1269	100.000
B - Norcot Road		✓	436	100.000
C - Oxford Road (A329) - West		✓	978	100.000
D - Wigmore Lane		✓	974	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	34	367	711	157
	B - Norcot Road	173	0	78	185
	C - Oxford Road (A329) - West	480	62	0	436
	D - Wigmore Lane	221	310	443	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	9	2	1	1
	B - Norcot Road	5	0	0	1
	C - Oxford Road (A329) - West	0	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.83	12.48	4.7	22.3	B
B - Norcot Road	0.71	18.54	2.4	10.4	C
C - Oxford Road (A329) - West	0.61	5.13	1.5	1.9	A
D - Wigmore Lane	0.79	12.45	3.6	16.0	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	955	611	1905	0.502	951	1.0	3.761	A
B - Norcot Road	328	1008	966	0.340	326	0.5	5.612	A
C - Oxford Road (A329) - West	736	411	1925	0.383	734	0.6	3.016	A
D - Wigmore Lane	733	562	1536	0.477	730	0.9	4.445	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1141	731	1811	0.630	1138	1.7	5.325	A
B - Norcot Road	392	1206	843	0.465	391	0.9	7.939	A
C - Oxford Road (A329) - West	879	492	1863	0.472	878	0.9	3.651	A
D - Wigmore Lane	876	672	1462	0.599	873	1.5	6.093	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1397	891	1687	0.828	1386	4.5	11.535	B
B - Norcot Road	480	1469	679	0.707	474	2.3	17.119	C
C - Oxford Road (A329) - West	1077	598	1783	0.604	1074	1.5	5.065	A
D - Wigmore Lane	1072	821	1362	0.787	1064	3.5	11.773	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1397	897	1683	0.830	1396	4.7	12.482	B
B - Norcot Road	480	1480	673	0.714	480	2.4	18.541	C
C - Oxford Road (A329) - West	1077	604	1778	0.606	1077	1.5	5.131	A
D - Wigmore Lane	1072	824	1360	0.789	1072	3.6	12.452	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1141	739	1805	0.632	1153	1.7	5.616	A
B - Norcot Road	392	1221	833	0.470	398	0.9	8.380	A
C - Oxford Road (A329) - West	879	500	1857	0.473	882	0.9	3.698	A
D - Wigmore Lane	876	677	1458	0.600	884	1.5	6.354	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	955	616	1901	0.503	958	1.0	3.833	A
B - Norcot Road	328	1016	961	0.342	330	0.5	5.717	A
C - Oxford Road (A329) - West	736	415	1922	0.383	737	0.6	3.043	A
D - Wigmore Lane	733	565	1534	0.478	736	0.9	4.524	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.00	0.55	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.51	0.51	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.62	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.90	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.67	0.04	0.43	4.46	7.45			N/A	N/A
B - Norcot Road	0.86	0.06	0.74	1.50	1.91			N/A	N/A
C - Oxford Road (A329) - West	0.89	0.07	0.77	1.55	1.94			N/A	N/A
D - Wigmore Lane	1.47	0.05	0.50	3.70	5.70			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	4.48	0.03	0.32	6.34	22.26			N/A	N/A
B - Norcot Road	2.26	0.03	0.30	2.39	10.41			N/A	N/A
C - Oxford Road (A329) - West	1.50	0.03	0.26	1.50	1.50			N/A	N/A
D - Wigmore Lane	3.49	0.03	0.30	3.68	16.04			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	4.69	0.03	0.29	4.69	13.59			N/A	N/A
B - Norcot Road	2.39	0.03	0.29	2.39	9.90			N/A	N/A
C - Oxford Road (A329) - West	1.52	0.03	0.26	1.52	1.52			N/A	N/A
D - Wigmore Lane	3.61	0.03	0.28	3.61	8.78			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.75	0.05	0.58	4.51	6.92			N/A	N/A
B - Norcot Road	0.90	0.05	0.58	1.81	2.60			N/A	N/A
C - Oxford Road (A329) - West	0.91	0.27	0.98	1.10	1.10			N/A	N/A
D - Wigmore Lane	1.53	0.05	0.68	3.74	5.59			N/A	N/A

18:15 - 18:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.02	0.03	0.35	2.46	4.84			N/A	N/A
B - Norcot Road	0.52	0.03	0.35	1.01	1.87			N/A	N/A
C - Oxford Road (A329) - West	0.62	0.06	0.67	1.35	1.44			N/A	N/A
D - Wigmore Lane	0.92	0.04	0.36	2.26	4.05			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025 + Development Traffic, AM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	7.26	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	12	B - Norcot Road	7.26	A

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)
D5	Horizon Year 2025 + Development Traffic	AM Peak	ONE HOUR	08:15	09:45	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	935	100.000
B - Norcot Road		✓	538	100.000
C - Oxford Road (A329) - West		✓	1036	100.000
D - Wigmore Lane		✓	646	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	18	199	490	228
	B - Norcot Road	184	0	93	261
	C - Oxford Road (A329) - West	476	19	0	541
	D - Wigmore Lane	182	162	302	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	0	5	3	8
	B - Norcot Road	6	0	3	0
	C - Oxford Road (A329) - West	4	17	0	2
	D - Wigmore Lane	10	1	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.54	4.14	1.2	1.5	A
B - Norcot Road	0.69	13.67	2.2	8.0	B
C - Oxford Road (A329) - West	0.71	7.71	2.4	4.3	A
D - Wigmore Lane	0.54	5.85	1.1	1.7	A

Main Results for each time segment

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	704	362	2029	0.347	702	0.5	2.706	A
B - Norcot Road	405	779	1087	0.373	403	0.6	5.245	A
C - Oxford Road (A329) - West	780	518	1790	0.436	777	0.8	3.543	A
D - Wigmore Lane	486	522	1488	0.327	484	0.5	3.580	A

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	841	434	1974	0.426	840	0.7	3.172	A
B - Norcot Road	484	932	989	0.489	482	0.9	7.082	A
C - Oxford Road (A329) - West	931	620	1713	0.544	930	1.2	4.586	A
D - Wigmore Lane	581	625	1420	0.409	580	0.7	4.278	A

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1029	530	1899	0.542	1028	1.2	4.122	A
B - Norcot Road	592	1141	856	0.692	588	2.1	13.165	B
C - Oxford Road (A329) - West	1141	756	1610	0.708	1136	2.4	7.514	A
D - Wigmore Lane	711	763	1329	0.535	709	1.1	5.794	A

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1029	532	1898	0.542	1029	1.2	4.143	A
B - Norcot Road	592	1143	855	0.693	592	2.2	13.670	B
C - Oxford Road (A329) - West	1141	761	1607	0.710	1140	2.4	7.707	A
D - Wigmore Lane	711	767	1327	0.536	711	1.1	5.850	A

09:15 - 09:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	841	436	1973	0.426	842	0.7	3.189	A
B - Norcot Road	484	935	987	0.490	489	1.0	7.292	A
C - Oxford Road (A329) - West	931	626	1709	0.545	936	1.2	4.687	A
D - Wigmore Lane	581	631	1417	0.410	583	0.7	4.323	A

09:30 - 09:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	704	364	2028	0.347	705	0.5	2.722	A
B - Norcot Road	405	783	1084	0.374	407	0.6	5.324	A
C - Oxford Road (A329) - West	780	522	1787	0.436	782	0.8	3.586	A
D - Wigmore Lane	486	526	1486	0.327	487	0.5	3.609	A

Queue Variation Results for each time segment

08:15 - 08:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.53	0.53	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.59	0.55	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.77	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.48	0.00	0.00	0.48	0.48			N/A	N/A

08:30 - 08:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.74	0.08	0.78	1.07	1.07			N/A	N/A
B - Norcot Road	0.94	0.07	0.79	1.71	2.24			N/A	N/A
C - Oxford Road (A329) - West	1.18	0.05	0.60	2.71	3.93			N/A	N/A
D - Wigmore Lane	0.69	0.09	0.81	1.38	1.45			N/A	N/A

08:45 - 09:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.17	0.03	0.26	1.17	1.17			N/A	N/A
B - Norcot Road	2.14	0.03	0.29	2.14	7.98			N/A	N/A
C - Oxford Road (A329) - West	2.36	0.03	0.27	2.36	4.31			N/A	N/A
D - Wigmore Lane	1.14	0.03	0.26	1.14	1.14			N/A	N/A

09:00 - 09:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.18	0.03	0.27	1.18	1.18			N/A	N/A
B - Norcot Road	2.20	0.03	0.28	2.20	6.26			N/A	N/A
C - Oxford Road (A329) - West	2.41	0.03	0.27	2.41	2.41			N/A	N/A
D - Wigmore Lane	1.15	0.03	0.27	1.15	1.67			N/A	N/A

09:15 - 09:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.75	0.52	0.99	1.40	1.45			N/A	N/A
B - Norcot Road	0.98	0.06	0.73	1.86	2.62			N/A	N/A
C - Oxford Road (A329) - West	1.21	0.09	1.01	2.19	2.90			N/A	N/A
D - Wigmore Lane	0.70	0.21	0.93	1.39	1.44			N/A	N/A

09:30 - 09:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	0.53	0.06	0.63	1.33	1.41			N/A	N/A
B - Norcot Road	0.60	0.04	0.38	1.23	1.94			N/A	N/A
C - Oxford Road (A329) - West	0.78	0.05	0.46	1.62	2.33			N/A	N/A
D - Wigmore Lane	0.49	0.04	0.44	1.27	1.38			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025 + Development Traffic, PM Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	12.24	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	5	B - Norcot Road	12.24	B

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)
D6	Horizon Year 2025 + Development Traffic	PM Peak	ONE HOUR	17:00	18:30	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1299	100.000
B - Norcot Road		✓	440	100.000
C - Oxford Road (A329) - West		✓	988	100.000
D - Wigmore Lane		✓	979	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	35	376	728	160
	B - Norcot Road	177	0	78	185
	C - Oxford Road (A329) - West	490	62	0	436
	D - Wigmore Lane	226	310	443	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
	A - Oxford Road (A329) - East	9	2	1	1
	B - Norcot Road	5	0	0	1
	C - Oxford Road (A329) - West	0	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.85	14.00	5.4	26.9	B
B - Norcot Road	0.74	20.42	2.6	12.2	C
C - Oxford Road (A329) - West	0.61	5.26	1.6	2.0	A
D - Wigmore Lane	0.80	13.18	3.8	17.7	B

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	978	611	1905	0.513	974	1.0	3.848	A
B - Norcot Road	331	1024	956	0.346	329	0.5	5.724	A
C - Oxford Road (A329) - West	744	417	1921	0.387	741	0.6	3.046	A
D - Wigmore Lane	737	573	1529	0.482	733	0.9	4.506	A

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1168	731	1812	0.644	1165	1.8	5.535	A
B - Norcot Road	396	1225	831	0.476	394	0.9	8.206	A
C - Oxford Road (A329) - West	888	499	1858	0.478	887	0.9	3.704	A
D - Wigmore Lane	880	686	1453	0.606	878	1.5	6.230	A

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1430	890	1688	0.847	1417	5.1	12.694	B
B - Norcot Road	484	1491	666	0.727	478	2.5	18.544	C
C - Oxford Road (A329) - West	1088	606	1777	0.612	1085	1.6	5.184	A
D - Wigmore Lane	1078	837	1352	0.797	1069	3.7	12.376	B

17:45 - 18:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1430	897	1683	0.850	1429	5.4	14.004	B
B - Norcot Road	484	1503	659	0.735	484	2.6	20.422	C
C - Oxford Road (A329) - West	1088	613	1772	0.614	1088	1.6	5.260	A
D - Wigmore Lane	1078	841	1349	0.799	1077	3.8	13.183	B

18:00 - 18:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1168	740	1805	0.647	1182	1.9	5.900	A
B - Norcot Road	396	1242	821	0.482	402	0.9	8.742	A
C - Oxford Road (A329) - West	888	508	1851	0.480	891	0.9	3.760	A
D - Wigmore Lane	880	691	1449	0.607	889	1.6	6.530	A

18:15 - 18:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	978	616	1902	0.514	981	1.1	3.926	A
B - Norcot Road	331	1032	951	0.348	333	0.5	5.840	A
C - Oxford Road (A329) - West	744	421	1917	0.388	745	0.6	3.075	A
D - Wigmore Lane	737	577	1526	0.483	740	0.9	4.592	A

Queue Variation Results for each time segment

17:00 - 17:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.05	0.55	1.01	1.42	1.47			N/A	N/A
B - Norcot Road	0.53	0.53	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.63	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.92	0.55	1.00	1.40	1.45			N/A	N/A

17:15 - 17:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.78	0.04	0.43	4.79	8.12			N/A	N/A
B - Norcot Road	0.89	0.06	0.72	1.65	2.13			N/A	N/A
C - Oxford Road (A329) - West	0.91	0.07	0.77	1.63	2.03			N/A	N/A
D - Wigmore Lane	1.51	0.05	0.49	3.83	5.93			N/A	N/A

17:30 - 17:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	5.07	0.03	0.33	9.23	26.88			N/A	N/A
B - Norcot Road	2.48	0.03	0.31	3.48	12.24			N/A	N/A
C - Oxford Road (A329) - West	1.56	0.03	0.26	1.56	1.56			N/A	N/A
D - Wigmore Lane	3.69	0.03	0.31	4.61	17.72			N/A	N/A

17:45 - 18:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	5.36	0.03	0.29	5.36	19.27			N/A	N/A
B - Norcot Road	2.65	0.03	0.30	2.65	11.68			N/A	N/A
C - Oxford Road (A329) - West	1.58	0.03	0.26	1.58	1.58			N/A	N/A
D - Wigmore Lane	3.83	0.03	0.28	3.83	10.54			N/A	N/A

18:00 - 18:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.86	0.05	0.49	4.92	7.83			N/A	N/A
B - Norcot Road	0.95	0.05	0.51	1.97	2.91			N/A	N/A
C - Oxford Road (A329) - West	0.93	0.24	0.98	1.36	1.36			N/A	N/A
D - Wigmore Lane	1.57	0.05	0.62	3.91	5.94			N/A	N/A

18:15 - 18:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.07	0.03	0.34	2.49	5.31			N/A	N/A
B - Norcot Road	0.54	0.03	0.34	1.11	2.06			N/A	N/A
C - Oxford Road (A329) - West	0.64	0.06	0.67	1.36	1.45			N/A	N/A
D - Wigmore Lane	0.94	0.04	0.36	2.31	4.30			N/A	N/A

Junctions 10					
ARCADY 10 - Roundabout Module					
Version: 10.0.2.1574					
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Report generation date: 06/03/2023 13:42:47

»Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, Development Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, Development Peak
 »Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025+ Development Traffic, Development Peak

Summary of junction performance

	Development Peak				
	Queue (Veh)	Delay (s)	RFC	Junction Delay (s)	Network Residual Capacity
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022				
A - Oxford Road (A329) - East	4.1	10.19	0.81	10.14	4 % [B - Norcot Road]
B - Norcot Road	3.1	22.60	0.76		
C - Oxford Road (A329) - West	1.9	6.32	0.66		
D - Wigmore Lane	1.9	7.58	0.65		
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025				
A - Oxford Road (A329) - East	5.1	12.47	0.84	12.45	1 % [B - Norcot Road]
B - Norcot Road	4.3	31.13	0.83		
C - Oxford Road (A329) - West	2.2	6.96	0.69		
D - Wigmore Lane	2.1	8.42	0.68		
	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025+ Development Traffic				
A - Oxford Road (A329) - East	6.4	15.23	0.87	14.85	-1 % [B - Norcot Road]
B - Norcot Road	5.6	40.35	0.87		
C - Oxford Road (A329) - West	2.3	7.30	0.70		
D - Wigmore Lane	2.2	8.83	0.69		

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. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

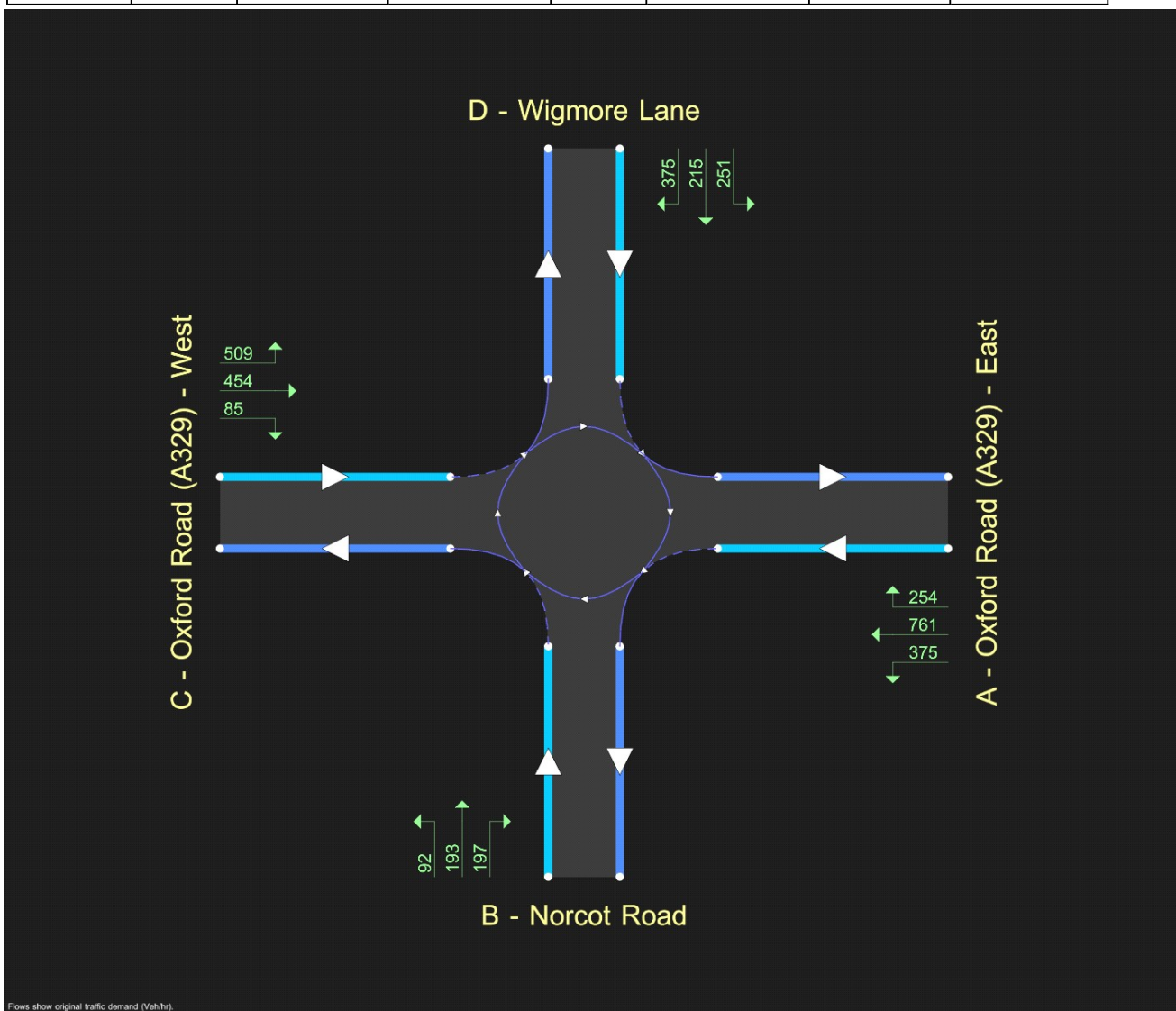
File summary

File Description

Title	Junction Capacity Assessment
Location	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction
Site number	
Date	01/03/2023
Version	ISSUE
Status	-
Identifier	-
Client	Threadneedle UK Property Authorised Investment Fund
Jobnumber	22-0346
Enumerator	MM
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	Veh	Veh	perHour	s	-Min	perMin



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
✓	✓	Delay	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)
D1	Base Year 2022	Development Peak	ONE HOUR	11:45	13:15	15
D2	Horizon Year 2025	Development Peak	ONE HOUR	11:45	13:15	15
D3	Horizon Year 2025+ Development Traffic	Development Peak	ONE HOUR	11:45	13:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	100.000

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Base Year 2022, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	10.14	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	4	B - Norcot Road	10.14	B

Arms

Arms

Arm	Name	Description	No give-way line
A	Oxford Road (A329) - East		
B	Norcot Road		
C	Oxford Road (A329) - West		
D	Wigmore Lane		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
A - Oxford Road (A329) - East	5.60	7.94	17.4	77.0	47.9	11.0		
B - Norcot Road	2.98	6.60	13.8	57.5	47.9	15.0		
C - Oxford Road (A329) - West	4.78	7.89	20.7	265.9	47.9	20.0		
D - Wigmore Lane	4.05	9.55	12.1	20.4	47.9	28.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - Oxford Road (A329) - East	0.784	2416
B - Norcot Road	0.627	1625
C - Oxford Road (A329) - West	0.746	2251
D - Wigmore Lane	0.662	1921

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)
D1	Base Year 2022	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1339	100.000
B - Norcot Road		✓	462	100.000
C - Oxford Road (A329) - West		✓	1003	100.000
D - Wigmore Lane		✓	808	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	39	351	711	238
	B - Norcot Road	186	0	89	187
	C - Oxford Road (A329) - West	428	82	0	493
	D - Wigmore Lane	237	208	363	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	3	1	2	0
	B - Norcot Road	6	0	0	0
	C - Oxford Road (A329) - West	4	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.81	10.19	4.1	17.1	B
B - Norcot Road	0.76	22.60	3.1	15.2	C
C - Oxford Road (A329) - West	0.66	6.32	1.9	2.9	A
D - Wigmore Lane	0.65	7.58	1.9	2.5	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1008	490	2004	0.503	1004	1.0	3.587	A
B - Norcot Road	348	1013	958	0.363	346	0.6	5.854	A
C - Oxford Road (A329) - West	755	487	1844	0.409	752	0.7	3.289	A
D - Wigmore Lane	608	551	1541	0.395	606	0.6	3.837	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1204	586	1929	0.624	1201	1.6	4.931	A
B - Norcot Road	415	1212	835	0.497	414	1.0	8.505	A
C - Oxford Road (A329) - West	902	582	1773	0.509	900	1.0	4.121	A
D - Wigmore Lane	726	659	1467	0.495	725	1.0	4.845	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1474	716	1828	0.807	1465	4.0	9.680	A
B - Norcot Road	509	1479	670	0.759	501	2.9	20.409	C
C - Oxford Road (A329) - West	1104	708	1679	0.658	1101	1.9	6.186	A
D - Wigmore Lane	890	804	1367	0.651	886	1.8	7.432	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1474	719	1826	0.807	1474	4.1	10.187	B
B - Norcot Road	509	1487	666	0.764	508	3.1	22.602	C
C - Oxford Road (A329) - West	1104	715	1674	0.660	1104	1.9	6.318	A
D - Wigmore Lane	890	809	1364	0.652	890	1.9	7.581	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1204	590	1926	0.625	1213	1.7	5.116	A
B - Norcot Road	415	1223	829	0.501	423	1.0	9.058	A
C - Oxford Road (A329) - West	902	593	1765	0.511	905	1.1	4.203	A
D - Wigmore Lane	726	666	1462	0.497	730	1.0	4.938	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1008	493	2001	0.504	1011	1.0	3.646	A
B - Norcot Road	348	1020	954	0.365	350	0.6	5.973	A
C - Oxford Road (A329) - West	755	491	1841	0.410	757	0.7	3.324	A
D - Wigmore Lane	608	555	1538	0.395	610	0.7	3.881	A

Queue Variation Results for each time segment

11:45 - 12:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.00	0.55	1.00	1.40	1.45			N/A	N/A
B - Norcot Road	0.56	0.55	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.69	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.65	0.55	1.00	1.40	1.45			N/A	N/A

12:00 - 12:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.64	0.04	0.44	4.34	7.18			N/A	N/A
B - Norcot Road	0.97	0.06	0.69	1.89	2.69			N/A	N/A
C - Oxford Road (A329) - West	1.03	0.06	0.71	1.99	2.88			N/A	N/A
D - Wigmore Lane	0.97	0.06	0.78	1.80	2.46			N/A	N/A

12:15 - 12:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	3.95	0.03	0.30	3.95	17.09			N/A	N/A
B - Norcot Road	2.88	0.03	0.33	5.39	15.20			N/A	N/A
C - Oxford Road (A329) - West	1.88	0.03	0.27	1.88	1.88			N/A	N/A
D - Wigmore Lane	1.82	0.03	0.27	1.82	1.82			N/A	N/A

12:30 - 12:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	4.07	0.03	0.28	4.07	7.24			N/A	N/A
B - Norcot Road	3.06	0.03	0.30	3.39	14.27			N/A	N/A
C - Oxford Road (A329) - West	1.92	0.03	0.27	1.92	1.92			N/A	N/A
D - Wigmore Lane	1.85	0.03	0.27	1.85	1.85			N/A	N/A

12:45 - 13:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.69	0.06	0.77	4.16	6.20			N/A	N/A
B - Norcot Road	1.02	0.05	0.47	2.38	3.62			N/A	N/A
C - Oxford Road (A329) - West	1.05	0.13	1.02	1.61	1.90			N/A	N/A
D - Wigmore Lane	1.00	0.11	0.96	1.57	1.88			N/A	N/A

13:00 - 13:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.02	0.04	0.37	2.56	4.58			N/A	N/A
B - Norcot Road	0.58	0.03	0.33	1.24	2.52			N/A	N/A
C - Oxford Road (A329) - West	0.70	0.05	0.59	1.49	1.56			N/A	N/A
D - Wigmore Lane	0.66	0.05	0.49	1.48	1.54			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	12.45	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	1	B - Norcot Road	12.45	B

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)
D2	Horizon Year 2025	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1382	100.000
B - Norcot Road		✓	477	100.000
C - Oxford Road (A329) - West		✓	1036	100.000
D - Wigmore Lane		✓	835	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
	A - Oxford Road (A329) - East	40	362	734	246
	B - Norcot Road	192	0	92	193
	C - Oxford Road (A329) - West	442	85	0	509
	D - Wigmore Lane	245	215	375	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	3	1	2	0
	B - Norcot Road	6	0	0	0
	C - Oxford Road (A329) - West	4	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.84	12.47	5.1	24.9	B
B - Norcot Road	0.83	31.13	4.3	23.0	D
C - Oxford Road (A329) - West	0.69	6.96	2.2	3.5	A
D - Wigmore Lane	0.68	8.42	2.1	3.6	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1040	506	1991	0.523	1036	1.1	3.754	A
B - Norcot Road	359	1046	938	0.383	357	0.6	6.166	A
C - Oxford Road (A329) - West	780	502	1833	0.426	777	0.7	3.400	A
D - Wigmore Lane	629	569	1529	0.411	626	0.7	3.975	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1242	606	1914	0.649	1239	1.8	5.316	A
B - Norcot Road	429	1251	811	0.529	427	1.1	9.321	A
C - Oxford Road (A329) - West	931	601	1759	0.530	930	1.1	4.334	A
D - Wigmore Lane	751	681	1452	0.517	749	1.1	5.112	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1522	740	1810	0.841	1509	4.9	11.543	B
B - Norcot Road	525	1525	642	0.818	514	3.9	26.186	D
C - Oxford Road (A329) - West	1141	727	1665	0.685	1137	2.1	6.765	A
D - Wigmore Lane	919	829	1350	0.681	915	2.1	8.197	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1522	743	1807	0.842	1521	5.1	12.473	B
B - Norcot Road	525	1535	636	0.826	524	4.3	31.126	D
C - Oxford Road (A329) - West	1141	737	1657	0.688	1140	2.2	6.960	A
D - Wigmore Lane	919	835	1346	0.683	919	2.1	8.421	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1242	610	1910	0.650	1255	1.9	5.601	A
B - Norcot Road	429	1265	802	0.534	441	1.2	10.294	B
C - Oxford Road (A329) - West	931	616	1748	0.533	935	1.2	4.455	A
D - Wigmore Lane	751	690	1446	0.519	755	1.1	5.241	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1040	509	1988	0.523	1044	1.1	3.825	A
B - Norcot Road	359	1053	933	0.385	361	0.6	6.316	A
C - Oxford Road (A329) - West	780	508	1829	0.427	782	0.7	3.442	A
D - Wigmore Lane	629	573	1526	0.412	630	0.7	4.026	A

Queue Variation Results for each time segment

11:45 - 12:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.09	0.55	1.02	1.43	1.48			N/A	N/A
B - Norcot Road	0.61	0.55	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.74	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.69	0.55	1.00	1.40	1.45			N/A	N/A

12:00 - 12:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.82	0.04	0.43	4.89	8.36			N/A	N/A
B - Norcot Road	1.10	0.05	0.59	2.45	3.57			N/A	N/A
C - Oxford Road (A329) - West	1.11	0.05	0.65	2.45	3.53			N/A	N/A
D - Wigmore Lane	1.06	0.06	0.75	2.09	2.94			N/A	N/A

12:15 - 12:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	4.89	0.03	0.32	7.60	24.94			N/A	N/A
B - Norcot Road	3.86	0.04	0.39	10.05	20.68			N/A	N/A
C - Oxford Road (A329) - West	2.13	0.03	0.27	2.13	2.31			N/A	N/A
D - Wigmore Lane	2.07	0.03	0.27	2.07	3.58			N/A	N/A

12:30 - 12:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	5.10	0.03	0.29	5.10	15.35			N/A	N/A
B - Norcot Road	4.29	0.03	0.34	8.40	22.99			N/A	N/A
C - Oxford Road (A329) - West	2.18	0.03	0.27	2.18	2.18			N/A	N/A
D - Wigmore Lane	2.12	0.03	0.27	2.12	2.12			N/A	N/A

12:45 - 13:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.89	0.05	0.53	4.96	7.81			N/A	N/A
B - Norcot Road	1.17	0.04	0.41	2.95	4.90			N/A	N/A
C - Oxford Road (A329) - West	1.15	0.11	1.04	1.88	2.47			N/A	N/A
D - Wigmore Lane	1.09	0.09	0.96	1.86	2.47			N/A	N/A

13:00 - 13:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.11	0.03	0.34	2.67	5.42			N/A	N/A
B - Norcot Road	0.63	0.03	0.31	1.10	2.96			N/A	N/A
C - Oxford Road (A329) - West	0.75	0.05	0.50	1.39	1.89			N/A	N/A
D - Wigmore Lane	0.71	0.05	0.46	1.35	1.90			N/A	N/A

Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction - Horizon Year 2025+ Development Traffic, Development Peak

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Oxford Road (A329) / Norcot Road / Wigmore Lane Roundabout Junction	Standard Roundabout		A, B, C, D	14.85	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	-1	B - Norcot Road	14.85	B

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)
D3	Horizon Year 2025+ Development Traffic	Development Peak	ONE HOUR	11:45	13:15	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A - Oxford Road (A329) - East		✓	1432	100.000
B - Norcot Road		✓	482	100.000
C - Oxford Road (A329) - West		✓	1048	100.000
D - Wigmore Lane		✓	841	100.000

Origin-Destination Data

Demand (Veh/hr)

	To				
From		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
	A - Oxford Road (A329) - East	42	375	761	254
	B - Norcot Road	197	0	92	193
	C - Oxford Road (A329) - West	454	85	0	509
	D - Wigmore Lane	251	215	375	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Oxford Road (A329) - East	B - Norcot Road	C - Oxford Road (A329) - West	D - Wigmore Lane
From	A - Oxford Road (A329) - East	2	1	2	0
	B - Norcot Road	6	0	0	0
	C - Oxford Road (A329) - West	3	0	0	1
	D - Wigmore Lane	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS
A - Oxford Road (A329) - East	0.87	15.23	6.4	33.0	C
B - Norcot Road	0.87	40.35	5.6	30.1	E
C - Oxford Road (A329) - West	0.70	7.30	2.3	3.8	A
D - Wigmore Lane	0.69	8.83	2.2	4.6	A

Main Results for each time segment

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1078	506	1992	0.541	1073	1.2	3.901	A
B - Norcot Road	363	1073	921	0.394	360	0.6	6.385	A
C - Oxford Road (A329) - West	789	513	1825	0.432	786	0.8	3.455	A
D - Wigmore Lane	633	583	1519	0.417	630	0.7	4.035	A

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1287	606	1915	0.672	1284	2.0	5.678	A
B - Norcot Road	433	1284	791	0.548	431	1.2	9.935	A
C - Oxford Road (A329) - West	942	614	1750	0.538	941	1.2	4.440	A
D - Wigmore Lane	756	698	1441	0.525	755	1.1	5.233	A

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1577	740	1811	0.871	1561	6.0	13.604	B
B - Norcot Road	531	1563	619	0.857	516	4.8	31.486	D
C - Oxford Road (A329) - West	1154	740	1656	0.697	1150	2.2	7.054	A
D - Wigmore Lane	926	848	1338	0.692	922	2.2	8.559	A

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1577	743	1808	0.872	1575	6.4	15.227	C
B - Norcot Road	531	1576	611	0.868	528	5.6	40.345	E
C - Oxford Road (A329) - West	1154	752	1646	0.701	1154	2.3	7.298	A
D - Wigmore Lane	926	855	1333	0.695	926	2.2	8.833	A

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1287	610	1911	0.674	1304	2.1	6.096	A
B - Norcot Road	433	1302	780	0.555	450	1.3	11.452	B
C - Oxford Road (A329) - West	942	634	1735	0.543	947	1.2	4.592	A
D - Wigmore Lane	756	709	1433	0.528	760	1.1	5.387	A

13:00 - 13:15

Arm	Total Demand (Veh/hr)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
A - Oxford Road (A329) - East	1078	509	1989	0.542	1082	1.2	3.984	A
B - Norcot Road	363	1081	916	0.396	365	0.7	6.562	A
C - Oxford Road (A329) - West	789	519	1820	0.433	791	0.8	3.503	A
D - Wigmore Lane	633	588	1516	0.418	635	0.7	4.091	A

Queue Variation Results for each time segment

11:45 - 12:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.17	0.55	1.08	1.29	1.65			N/A	N/A
B - Norcot Road	0.64	0.55	1.00	1.40	1.45			N/A	N/A
C - Oxford Road (A329) - West	0.76	0.55	1.00	1.40	1.45			N/A	N/A
D - Wigmore Lane	0.71	0.55	1.00	1.40	1.45			N/A	N/A

12:00 - 12:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	2.01	0.04	0.42	5.47	9.49			N/A	N/A
B - Norcot Road	1.18	0.05	0.51	2.78	4.13			N/A	N/A
C - Oxford Road (A329) - West	1.15	0.05	0.62	2.61	3.78			N/A	N/A
D - Wigmore Lane	1.09	0.06	0.73	2.27	3.18			N/A	N/A

12:15 - 12:30

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	6.03	0.04	0.36	13.19	32.98			N/A	N/A
B - Norcot Road	4.78	0.05	0.47	13.58	24.16			N/A	N/A
C - Oxford Road (A329) - West	2.24	0.03	0.27	2.24	3.13			N/A	N/A
D - Wigmore Lane	2.18	0.03	0.28	2.18	4.55			N/A	N/A

12:30 - 12:45

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	6.39	0.03	0.30	6.39	26.79			N/A	N/A
B - Norcot Road	5.55	0.04	0.39	14.03	30.15			N/A	N/A
C - Oxford Road (A329) - West	2.30	0.03	0.27	2.30	2.30			N/A	N/A
D - Wigmore Lane	2.23	0.03	0.27	2.23	2.37			N/A	N/A

12:45 - 13:00

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	2.10	0.05	0.47	5.71	9.39			N/A	N/A
B - Norcot Road	1.28	0.04	0.39	3.31	5.81			N/A	N/A
C - Oxford Road (A329) - West	1.20	0.10	1.04	1.99	2.72			N/A	N/A
D - Wigmore Lane	1.13	0.08	0.96	1.96	2.71			N/A	N/A

13:00 - 13:15

Arm	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
A - Oxford Road (A329) - East	1.19	0.03	0.33	2.62	6.04			N/A	N/A
B - Norcot Road	0.66	0.03	0.30	1.40	3.11			N/A	N/A
C - Oxford Road (A329) - West	0.77	0.05	0.48	1.53	2.06			N/A	N/A
D - Wigmore Lane	0.72	0.04	0.45	1.46	2.02			N/A	N/A

Appendix H: Parking Survey Data (January 2023)

SITE:		DATE:
1		26TH & 28TH JANUARY 2023
LOCATION:		DAY:
READING RETAIL PARK		THURSDAY & SATURDAY



JOB TITLE:		JOB NUMBER:
READING		12007

ACTIVITY SURVEY

JOB REF: 12007



JOB NAME: READING

SITE: 1

DATE: 26/01/2023

LOCATION: READING RETAIL PARK

DAY: THURSDAY

BAY	ARRIVAL TIME (HH:MM:SS)	DEPARTURE TIME (HH:MM:SS)	DWELL TIME	VEHICLE TYPE	TRAILER ATTACHED
1	09:26:14	09:34:01	00:07:47	OGV1	NO
2	09:59:22	10:05:20	00:05:58	LGV	NO
1	11:04:20	11:38:26	00:34:06	CAR	NO
1	11:25:49	11:31:44	00:05:55	LGV	NO
2	11:25:50	11:26:24	00:00:34	CAR	NO
1	11:40:52	11:52:09	00:11:17	LGV	NO
2	12:19:57	12:25:57	00:06:00	CAR	NO
1	13:34:27	13:36:42	00:02:15	CAR	NO
1	14:26:31	14:54:19	00:27:48	LGV	NO
2	15:49:01	16:26:54	00:37:53	LGV	NO
3	16:13:02	17:10:23	00:57:21	CAR	NO
1	16:24:28	16:33:13	00:08:45	LGV	NO
1	16:44:48	17:17:36	00:32:48	CAR	NO
1	17:40:21	18:21:07	00:40:46	LGV	NO
2	18:28:18	19:03:42	00:35:24	LGV	NO
2	18:35:22	18:38:54	00:03:32	CAR	NO
2	19:13:03	19:17:23	00:04:20	OGV1	NO

ACTIVITY SURVEY

JOB REF: 12007



JOB NAME: READING

SITE: 1

DATE: 28/01/2023

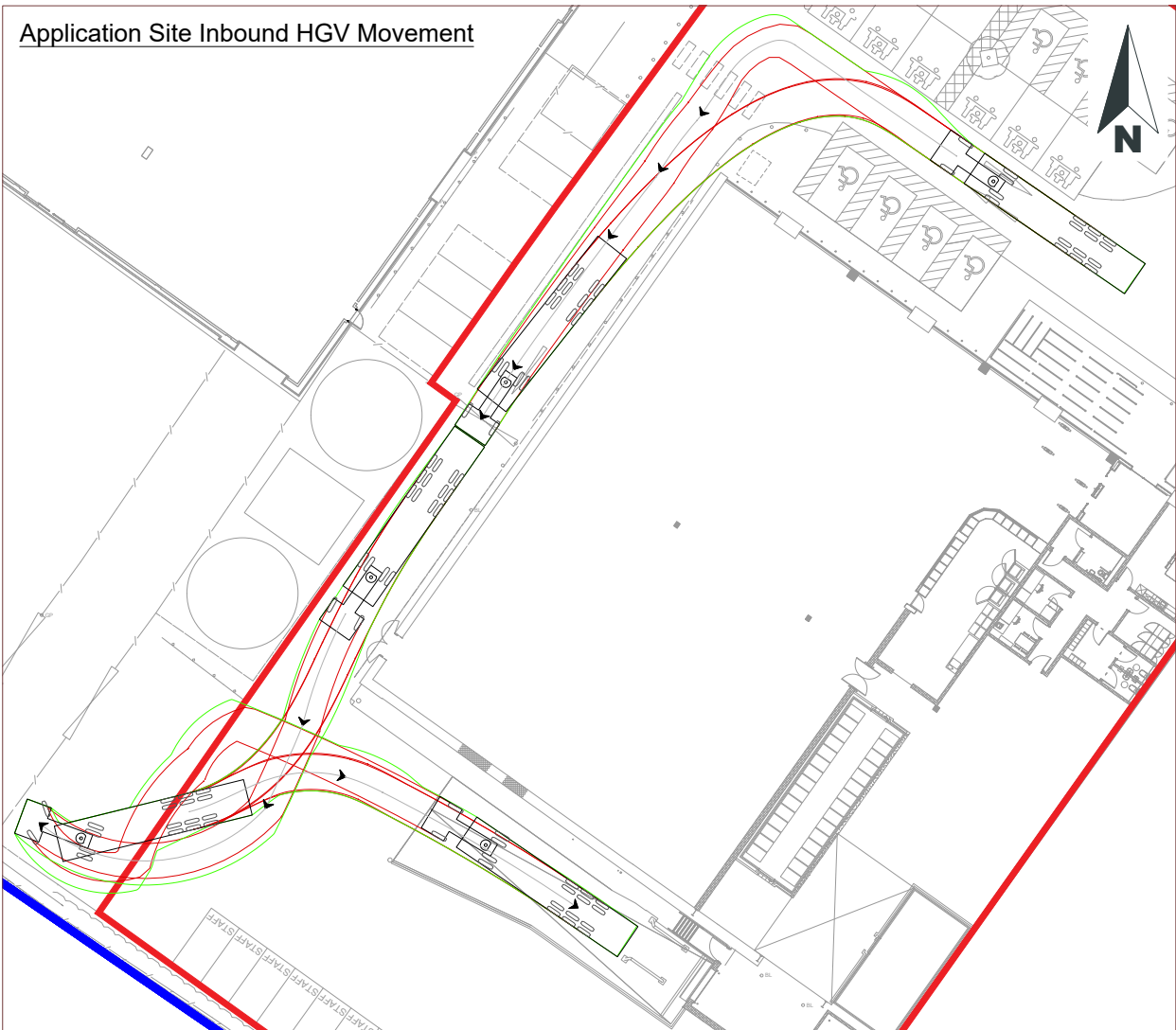
LOCATION: READING RETAIL PARK

DAY: SATURDAY

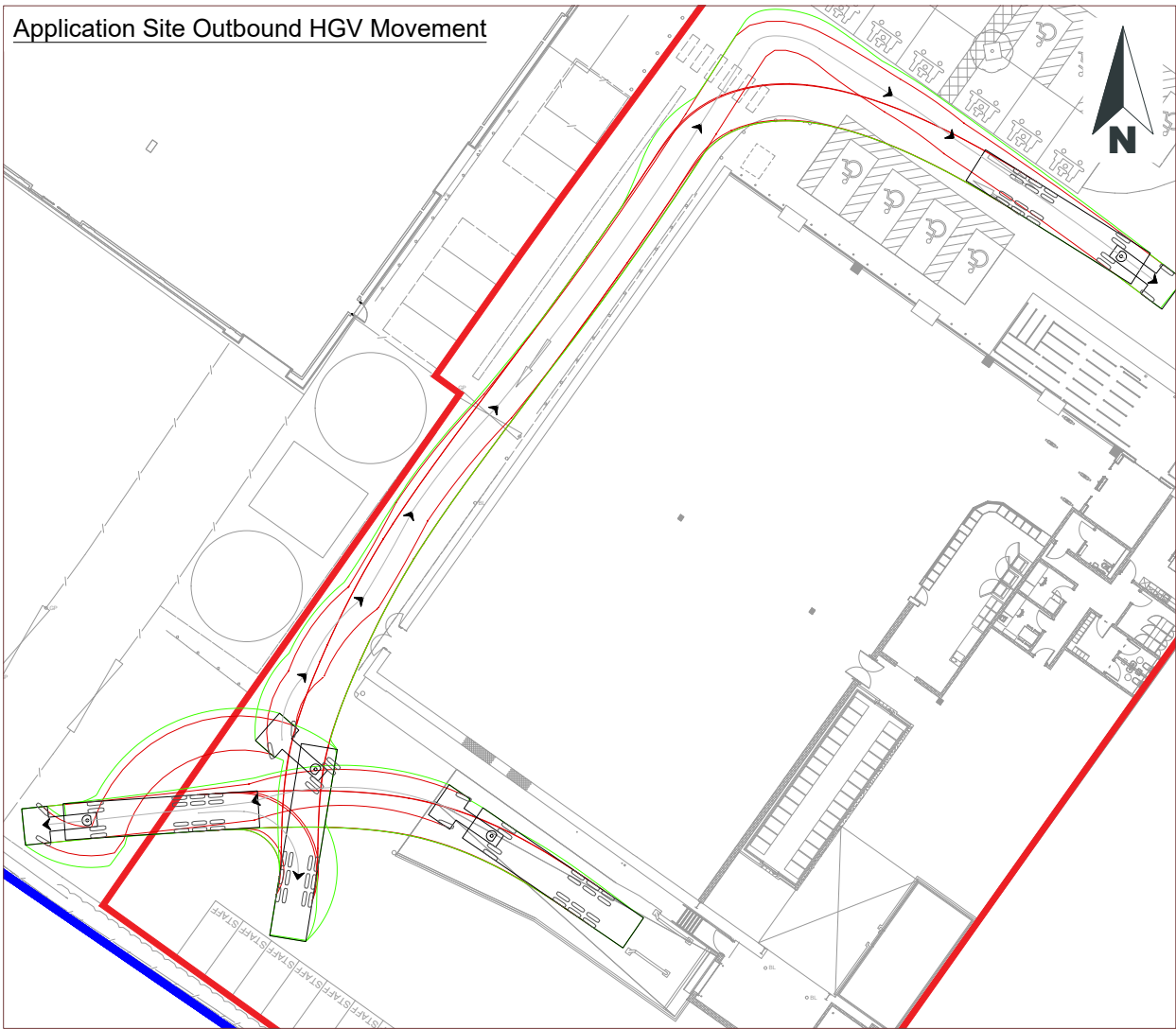
BAY	ARRIVAL TIME (HH:MM:SS)	DEPARTURE TIME (HH:MM:SS)	DWELL TIME	VEHICLE TYPE	TRAILER ATTACHED
1	08:59:43	09:10:40	00:10:57	LGV	NO
1	09:40:43	10:44:06	01:03:23	LGV	NO
3	10:00:03	10:07:06	00:07:03	LGV	NO
1	10:12:01	11:53:43	01:41:42	CAR	NO
3	10:12:43	10:25:04	00:12:21	CAR	NO
3	10:15:18	10:22:39	00:07:21	CAR	NO
3	10:26:36	10:35:42	00:09:06	LGV	NO
3	10:48:23	10:58:49	00:10:26	LGV	NO
3	11:30:48	11:39:52	00:09:04	OGV1	NO
3	11:40:30	11:45:40	00:05:10	CAR	NO
1	12:00:34	12:00:53	00:00:19	CAR	NO
2	12:14:10	12:41:11	00:27:01	CAR	NO
2	12:43:10	12:48:57	00:05:47	CAR	NO
3	12:53:31	12:58:26	00:04:55	CAR	NO
1	13:16:12	13:35:01	00:18:49	CAR	NO
3	13:22:50	14:12:05	00:49:15	LGV	NO
1	13:36:06	13:45:38	00:09:32	LGV	NO
1	13:55:17	14:04:49	00:09:32	CAR	NO
2	14:11:08	14:11:27	00:00:19	CAR	NO
1	14:17:59	14:30:24	00:12:25	CAR	NO
2	14:22:07	14:30:09	00:08:02	CAR	NO
2	14:28:15	14:30:33	00:02:18	CAR	NO
1	14:49:41	15:09:16	00:19:35	LGV	NO
2	15:13:00	15:16:43	00:03:43	CAR	NO
1	15:15:21	15:19:45	00:04:24	CAR	NO
2	15:27:39	15:39:47	00:12:08	LGV	NO
2	15:44:11	16:02:59	00:18:48	OGV1	NO
2	16:47:18	17:44:44	00:57:26	CAR	NO

Appendix I: Swept Path Analysis Drawing – Servicing Arrangements

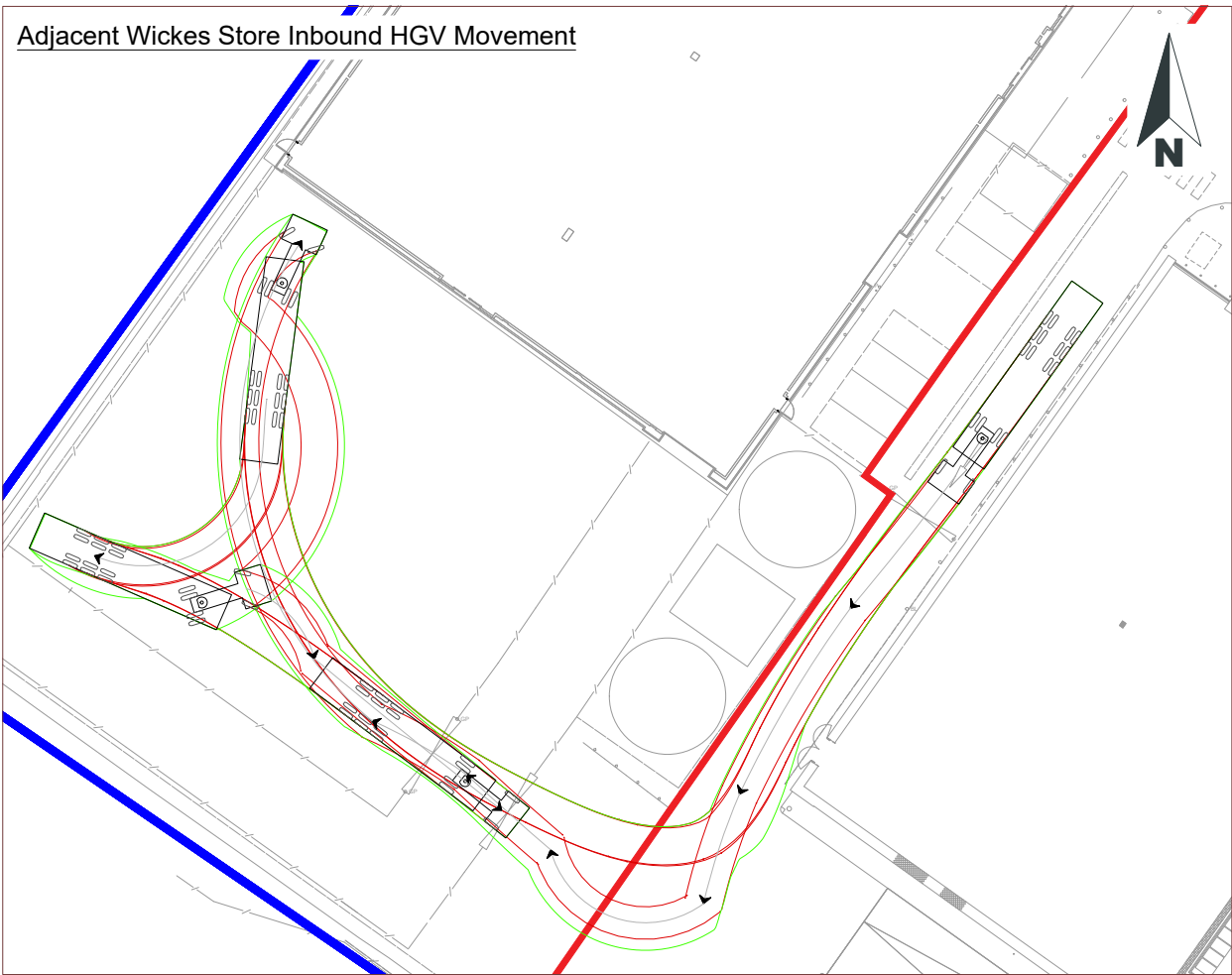
Application Site Inbound HGV Movement



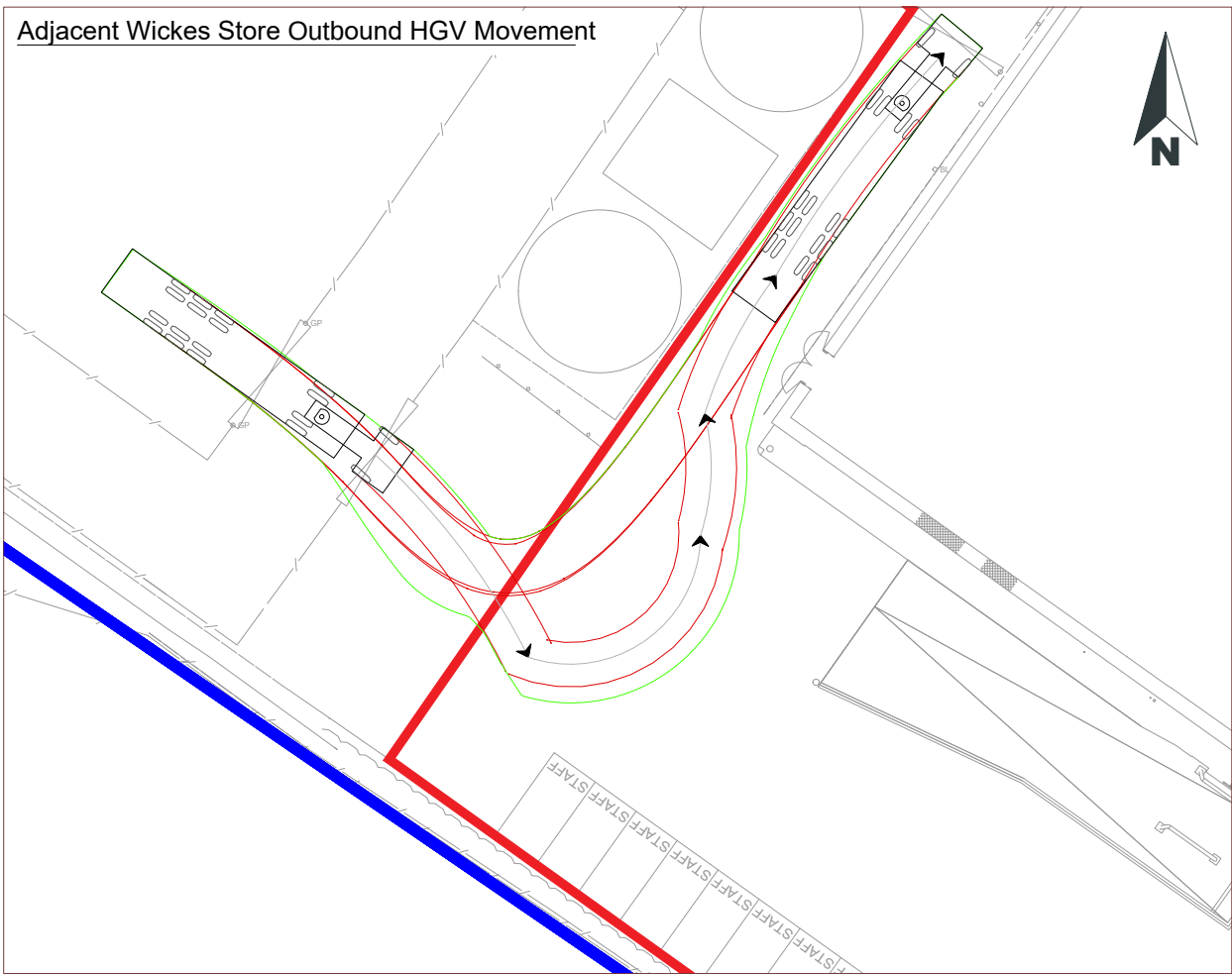
Application Site Outbound HGV Movement



Adjacent Wickes Store Inbound HGV Movement



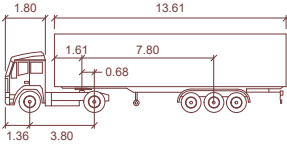
Adjacent Wickes Store Outbound HGV Movement



Notes:

1. Do not scale from this drawing. All dimensions are in metres, unless stated otherwise.
2. This drawing is based on the Architect's layout (Drawing no. 15044-1-108) by The Harris Partnership Architects received on 09.01.23.
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Vehicle Profile



Artic

Tractor Width : 2.55
Trailer Width : 2.55
Tractor Track : 2.55
Trailer Track : 2.55
Lock to Lock Time : 6.0
Steering Angle : 42.7
Articulating Angle : 70.0

Key:

- Site Boundary
- Land within control of the Client

Rev	Date	Details	Drawn by	Checked by
-----	------	---------	----------	------------

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environmental consultants

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CLIENT:
Threadneedle UK Property Authorised Investment Fund

PROJECT:
Units 2 and 6,
Reading Retail Park,
Reading

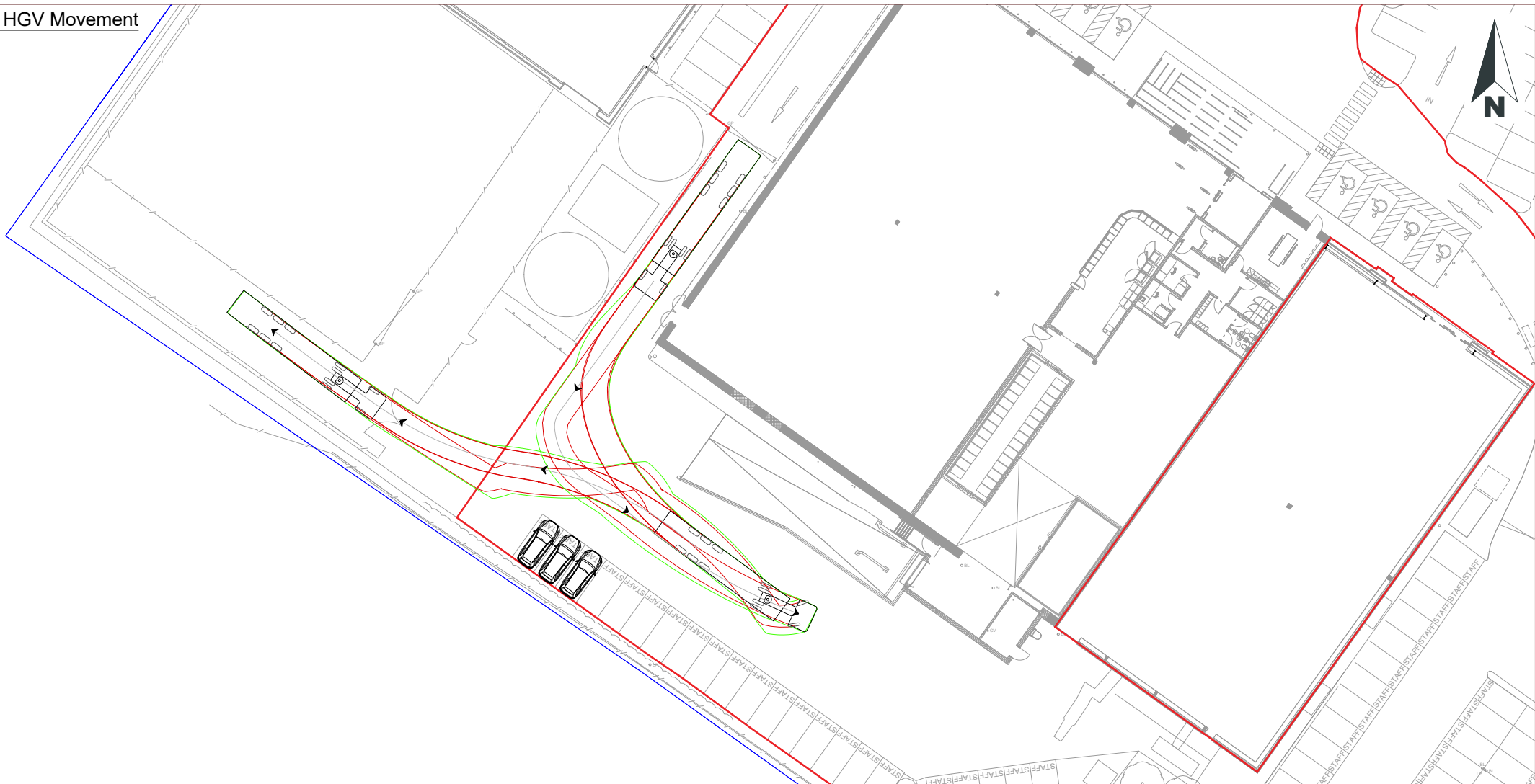
TITLE:
Swept Path Analysis -
16.5m Articulated Vehicle

STATUS:
INFORMATION

SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:500	09.01.23	RC	BF	MM

JOB NO:	DRAWING NO:	REVISION:
22-0346	SP01	-

Adjacent Wickes Store Inbound HGV Movement



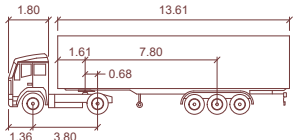
Adjacent Wickes Store Outbound HGV Movement



Notes:

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- 2. This drawing is based on the Architect's layout received on 17.01.23.
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Vehicle Profile



Artic

Tractor Width : 2.55	Lock to Lock Time : 6.0
Trailer Width : 2.55	Steering Angle : 42.7
Tractor Track : 2.55	Articulating Angle : 70.0
Trailer Track : 2.55	

Key:

- Site Boundary
- Land within control of the Client

Rev	Date	Details	Drawn by	Checked by	

Infrastructure and environmental consultants
rappor.co.uk

CLIENT:

Threadneedle UK Property Authorised Investment Fund

PROJECT:

Units 2 and 6,
Reading Retail Park,
Reading

TITLE:

Swept Path Analysis -
16.5m Articulated Vehicle

STATUS:

INFORMATION

SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:500	17.01.23	RC	MM	MM
JOB NO:	DRAWING NO:		REVISION:	
22-0346	SP02		-	

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