LIDL GREAT BRITAIN LIMITED
PROPOSED FOODSTORE
PURBROOK WAY, HAVANT

TRANSPORT ASSESSMENT ADDENDUM 2

MARCH 2021

the journey is the reward

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1 Introduction

1.1 Mayer Brown Ltd has prepared this second Addendum (Addendum 2) in response to the Local Highway Authority consultation response from Hampshire County Council (HCC), relating to the Transport Assessment (TA) and Travel Plan dated November 2020 and submitted to Havant Borough Council as part of planning application APP/20/01221.

Development Summary

1.2 Planning application APP/20/01221 relates to the proposed construction of a 1,899sqm Gross Internal Area (GIA) Lidl foodstore, with access for vehicles provided via a new simple priority junction arrangement from the private access road currently serving the adjacent B&Q store, running along the western perimeter of the application site.

Highway Consultation Comments

1.3 In advance of preparing their formal consultation response, HCC suggested it would be beneficial to undertake a MS Teams meeting to discuss various elements of the proposals, with a meeting between HCC, Lidl, Simply Planning (Planning Consultants) and Mayer Brown (Transport Consultants) taking place on 11th February 2021.

1.4 Subsequently, a TA Addendum (Addendum 1) dated February 2021 was prepared and submitted to provide the required additional clarification / justification as requested by HCC during the Teams meeting.

1.5 A formal consultation response was received from HCC highways dated 8th March 2021, a copy of which is provided in **Appendix A** for reference. HCC has confirmed that the formal consultation response comments have been solely based upon the TA and Travel Plan details submitted alongside the original submission, and hence the additional requested information included within Addendum 1 has not been duly considered. Therefore, there is an element of overlap between the formal consultation comments and the information provided in Addendum 1 requested by HCC at the meeting in February 2021.

1.6 The content of this Addendum 2 has been developed based upon the formal HCC consultation response and subsequent correspondence with HCC, making reference to the original TA and Addendum 1 as appropriate.

2 Site Accessibility

2.1 Within the HCC consultation response it is requested that amendments are made / clarification is provided in relation to the proposed pedestrian / cycle linkages to the site.

2.2 Based upon the consultee comments received to date, various amendments have been made to the proposed site layout, hence for completeness a revised version of the proposed site layout is provided in **Appendix B**.

2.3 The updated site layout plan includes a 3m wide pedestrian / cycle link between the store entrance and Purbrook Way, as requested by HCC and outlined in Addendum 1.

Pedestrian / Cycle Link

2.4 To address various HCC comments the following alterations / clarification is provided in relation to the proposed pedestrian / cycle link to the store frontage:

- The pedestrian / cycle link alignment has been adjusted to reduce the gradient from 1:15 to 1:20, in line with guidance set out within Department for Transport Local Transport Note 1/20 'Cycle Infrastructure Design' (LTN 1/20), adopted July 2020.
- Given the difference in levels between the pedestrian / cycle link and ditch to the east and west, 900mm high railings are to be provided on eitherside of the pedestrian / cycle link, situated outside of the 3m shared path width. Specific details are shown on the submitted boundary treatments plan AD 114_Rev B, attached at **Appendix C** for ease.
- Discussions would be undertaken with the HCC OWC team at detailed design stage following the granting of planning permission to ensure that the highway / embankment drains continue to operate as designed.

Visibility Splays

2.5 Additionally, HCC requested that where the pedestrian / cycle link joins the existing shared use path on Purbrook Way, it should be demonstrated that appropriate visibility splays can be provided for cyclists.

2.6 A plan showing associated cycle visibility splays onto Purbrook Way is provided in **Appendix D**, based upon a 10mph cycle speed along the shared footway / cycleway along Purbrook Way.

B&Q Roundabout

2.7 Within their response HCC noted that the northbound pedestrian / cyclist visibility splay at the crossing on the eastern side of Purbrook Way is constrained by existing vegetation and the B&Q totem sign.

2.8 Development proposals include the removal of a cluster of several trees in the southwestern corner of the application site, which are noted by HCC as currently impeding intervisibility between traffic travelling towards the Purbrook Way roundabout and pedestrians crossing the private access road arm from east-to-west.

2.9 Retained / proposed vegetation would consist of low-level planting / shrub mixes below 600mm high and hence would sit below appropriate intervisibility splays to assist pedestrians and cyclists crossing at this location and will be maintained in perpetuity.

2.10 Regarding the positioning of the existing B&Q illuminated totem, this signage is situated outside of land within the applicants' control, although it is noted that permission was granted for the current totem in 2016 following rebranding and changes to the totem (Ref: APP/16/00896). As part of the 2016 B&Q totem application Havant Borough Council's Highways Engineer was consulted and did not raise any objections to the proposed signage in terms of highway safety.

2.11 A plan showing current and proposed achievable visibility splays from the eastern crossing point, taken from the centre of the crossing point 1m off the kerbline is provided in **Appendix E**.

2.12 Based upon the B&Q totem position being considered to have no material impact in terms of highway safety as recent as 2016, and that the proposed landscaping will increase intervisibility, it is considered that the proposals provide a significant betterment when compared to the existing situation, which would benefit both store and non-store users.

Pedestrian / Cyclist Numbers

2.13 In relation to non-car travel modes, as outlined within the original TA, development proposals are expected to generate 158 pedestrian, 23 cycle and 9 public transport trips daily during a weekday, and 234 pedestrian, 19 cycle and 1 public transport trip daily during a Saturday.

2.14 Based on an 800m walking catchment, it is envisaged that a vast majority of pedestrian trips to the site would be to / from residential areas in Bedhampton accessed from Purbrook Way and Hulbert Road. Therefore these trips would predominantly approach from the east, with this route not crossing the B&Q roundabout arm.

2.15 Based on the proposed customer catchment area, around 56% of cyclist customers would approach from the west and 44% from the east. Consequently, 11 – 13 of the cyclists per day would approach from the west, crossing the B&Q arm to access the Lidl foodstore.

2.16 In relation to both walking and cycling trips to the proposed store, it is highly likely that customers accessing the proposed Lidl foodstore would currently walk / cycle to access comparable provision, especially due to the close proximity of the application site to the existing Asda superstore. Therefore development proposals are envisaged to have no material impact upon numbers of pedestrians / cyclists utilising the crossing point on the B&Q arm.

Cycle Parking

2.17 Development proposals provide 10 cycle spaces onsite in the form of 5 'Sheffield' stands located along the southern glazed store frontage for use by customers.

2.18 In relation to long stay cycle parking provision, appropriate space is available within the store warehouse for staff to store cycles securely / safely if required, with proposals now looking to include a wall rack providing formal parking provision for 3 cycles within the store which is considered appropriate based upon expected staff demand.

3 Personal Injury Accident Data

3.1 Within their consultation response, HCC note that based upon clarification / agreement being required in relation to the proposed development's trip generation, distribution and trip reassignment, they are unable to determine whether the proposed development will exacerbate the existing accident trends as a result of the associated additional traffic.

Updated Analysis

3.2 Updated detailed collision analysis was undertaken within Section 2 of Addendum 1, submitted directly to HCC on the 3rd March 2021. Due to the short period of time between receipt of Addendum 1 and the submission of their formal comments (8th March 2021), HCC has confirmed that this information was not reviewed / considered within their response.

3.3 Consequently, for completeness, clarity and to avoid duplication, it is recommended that HCC consider the content provided within Addendum 1 and 2 in tandem prior to providing an updated consultation response.

3.4 In relation to the Purbrook Way / Hulbert Road roundabout specifically highlighted by HCC within their response, as per the origional TA and updated highway impact analysis outlined within Section 8 of this Addendum, the development proposals are expected to result in no material change / impact upon traffic flows at this junction / approach arms.

Period Covered

3.5 Within their response HCC raise that the PIA data submitted with the original TA is now over a year out of date and therefore recent accidents may have been missed off the analysis.

3.6 It is noted that the PIA data was requested from Hampshire Constabulary in August 2020 to allow review and consideration prior to submission of the application in December 2020. At that moment in time the most recent five-year period available with verified PIA data was January 2015 to December 2019.

4 Vehicular Access

4.1 Observations / comments raised by HCC in relation to the proposed Lidl access are detailed herein.

Lidl Access Alignment

4.2 Within their response HCC raised the observation that the proposed access is not perpendicular to the existing main road that serves B&Q and that the skewed alignment will require a slightly wider access and differing radii to accommodate safe access and egress manoeuvres.

4.3 Specific details regarding the proposed access geometry, in line with these observations, is noted in para 3.8 of the original TA, *"The proposed arrangement provides a 9m wide access carriageway with appropriate kerb radii to facilitate vehicular access, with a 6m radii to the north and 10m radii to the south due to the angled alignment of the access".* Based on the above, no material changes are currently proposed in relation to the access alignment.

Lidl Access Visibility Splays

4.4 Whilst no specific concerns have been raised by HCC in relation to the proposed visibility splays from the site access, HCC note that the proposed retaining wall on the northern side of the Lidl access is very close to the visibility splay, resulting in a potential risk that the actual alignment during construction could potentially result in obstruction of achievable visibility.

4.5 To allay HCC concerns in relation to this matter, the retaining wall alignment has been adjusted to be offset from the visibility splay by a minimum of 1m, in turn providing an element of flexibility for the exact positioning of the retaining wall during construction without impeding the visibility splay.

4.6 An updated access plan showing visibility splays is provided in **Appendix F**.

4.7 For clarity, the access plan also includes planned tree planting along the western side, demonstrating that planned trees either sit behind the visibility splay or the tree specification indicates a minimum 2m clear stem and hence are not considered to impact upon the visibility splay envelope.

Road Restraint System

4.8 Within their response, HCC note that the proposals affect an existing road restraint system that connects to the highway's road restraint system, making reference to guidance *'Design & Maintenance Guidance for Local Authority Roads Provision of Road Restraint Systems on Local Authority Roads.'* (2011)

4.9 It is noted that the existing highway's box beam road restraint system currently terminates in the vicinity of the B&Q totem. From this point a separate 'private' Armco style road restraint system continues along the eastern edge of the private access road.

4.10 Consequently, for clarity no amendments are currently being made to the existing highway's road restraint system and the private Armco restraint system no longer connects to the highway's road restraint system.

4.11 A plan is provided in **Appendix G** to illustrate the current position of the highway's and private road restraint systems and how these relate to the proposed site layout.

4.12 In relation to the private (non-highway's) Armco road restraint system, it is envisaged that no material changes will be made for the first c. 22m length, following which it is envisaged that the barrier would be realigned behind the southern Lidl site access visibility splay and terminated where associated level differences between the private access road and application site no longer pose a concern due to regrading of the application site.

4.13 Specific details in relation to proposed alterations to the private road restraint system would be agreed at the detailed design stage, including updated risk assessment details if appropriate, in order that these align with final fixed details in relation to levels and retaining features.

Roundabout Entry Visibility

4.14 Despite the B&Q private access arm onto the Purbrook Way roundabout being built and existing, within their response HCC requested clarification on existing entry visibility to the roundabout from the B&Q arm, indicating that they considered it to be substandard due to trees, vehicle restraint systems and signs all obstructing required views.

4.15 The methodology utilised for assessing entry visibility splays at the roundabout have been extracted from the Design Manual for Roads and Bridges (DMRB) Road Layout Design document CD 116 'Geometric design of roundabouts' Revision 2.

4.16 The associated roundabout entry visibility splays considered are as follows:

- **Forward Visibility at Entry** - Drivers approaching the roundabout shall be able to see objects between 0.26 - 2 metres on the full width of the circulatory carriageway, with visibility taken from the centre of the nearside lane 15 metres back from the give way line for a distance of 40m based upon an ICD of 40 – 60m.
- **Visibility to the right** - For visibility to the right, the envelope of visibility shall be obtainable from a driver's eye height of between 1.05 metres and 2 metres to an object height of between 1.05 metres and 2 metres.

  Drivers approaching the roundabout shall be able to see the full width of the circulatory carriageway to their right, from the centre of the offside lane at the give way line, for a distance of 40m based upon an ICD of 40 – 60m.

4.17 A plan showing that the existing B&Q arm is compliant with the DMRB roundabout entry visibility splay requirements is provided in **Appendix H**.

5 Parking

5.1 In relation to parking, whilst the HCC consultation response notes that in their capacity as local parking authority, Havant Borough Council should determine whether the proposed quantum of parking meets the adopted parking standards, they note that the parking bay dimensions are provided above the adopted parking standards, whilst the number of bays is provided in line with Havant's adopted parking SPD.

5.2 Consequently HCC confirmed that they are satisfied that the proposed level of parking provision is sufficient.

Parking on Purbrook Way

5.3 Despite HCC confirming that they are happy that the proposed level of parking onsite is appropriate to meet demand and hence, proposals are not expected to result in parking overspill onto the local highway network, HCC believes there is concern that drivers will stop on Purbrook Way to access the site rather than utilise the car park, especially given the location of the pedestrian / cycle access to the site.

5.4 Consequently HCC request that a contribution should be provided by the developer to implement a Traffic Regulation Order (TRO) on Purbrook Way if necessary, to prevent any such parking on Purbrook Way.

5.5 This comment seems to align with that submitted by the Havant Borough Council Traffic Management Team who noted that a sum should be provided by the developer (up to a maximum of £7,000) to allow a TRO to be processed ending 5 years from practical completion of the development, to ensure that any parking from the development does not interfere with the capacity, operation or safety of the local highway network, specifically cars parking on the northern kerb on Purbrook Way.

5.6 As clearly demonstrated within the original TA and acknowledged by HCC within their response, the proposed level of car parking onsite is sufficient to accommodate predicted peak parking accumulation alongside spare capacity to accommodate fluctuations in demand.

5.7 Knowing that appropriate parking provision is provided onsite, it is considered unrealistic that drivers would stop and park on Purbrook Way to access the Lidl store, especially considering the potential safety concerns with stopping on Purbrook Way due to the level of traffic utilising this route and proximity to the roundabout junction.

5.8 It is noted that since the HCC comments were received, the alignment / length of the pedestrian / cycle access to the site has been amended to provide a 1:20 gradient. This in turn has shifted the access point onto Purbrook Way closer to the roundabout and extended the length of the link.

5.9 The primary reason why someone would park on Purbrook Way would be for convenience. It is noted that in terms of convenience, c. 80% of parking spaces within the Lidl site are located the same if not closer walk distance to the store entrance than if a customer parked on Purbrook Way adjacent to the pedestrian / cycle link, a 65m walk to the store entrance.

5.10 Consequently, it is considered highly unrealistic that the proposed development would directly result in parking on Purbrook Way.

5.11 Nonetheless, in the interests of moving the application forward, Lidl have confirmed that they would be willing to agree to set aside an appropriate sum (up to a maximum of £7,000) to allow a TRO to be processed within 5 years of practical completion of the development, based upon appropriate justification being provided for the TRO being required which is directly attributed to the Lidl foodstore development.

6 Trip Generation Assessment

6.1 Following review of the trip methodology used within the original TA, namely the utilisation of ANPR peak hour trip rates from an existing comparable Lidl store, HCC's response confirmed that it is agreed that this is appropriate and would provide a robust assessment.

6.2 Based upon HCC requesting that growthed 2016 baseline data is utilised for weekday highway impact assessment purposes, the weekday PM peak hour (16:30 – 17:30) has changed compared to that outlined within the original TA and Addendum (15:30 – 16:30).

6.3 A summary of the revised critical peak period trip rates, alongside the resulting vehicular trip generation associated with the proposed development is shown in **Table 6.1**. This utilises the ANPR trip rate data provided in Appendix F of the original TA.

	Weekday AM Peak 08:00 – 09:00			Weekday PM Peak 16:30 – 17:30			Saturday Peak 11:45 – 12:45		
Proposed Scenario	**Arrive**	**Depart**	**Total**	**Arrive**	**Depart**	**Total**	**Arrive**	**Depart**	**Total**
Lidl Whiteley ANPR Trip Rates (per 100sqm GIA)	2.391	1.993	4.384	4.529	4.601	9.130	6.069	5.978	12.047
Trip Generation (1,899 sqm)	45	38	83	86	87	173	115	114	229

Table 6.1: ANPR Vehicular Trip Generation – Proposed Lidl Foodstore

6.4 **Table 6.1** indicates that the proposals are expected to generate approximately 83 vehicular movements (45 arrivals / 38 departures) during the weekday morning peak, 173 vehicular movements during the weekday evening peak and 229 vehicular movements during the Saturday peak.

7 Trip Distribution

7.1 It is noted that additional trip distribution justification had already been submitted to HCC as part of Addendum 1, however HCC have confirmed that their comments dated 8th March 2021 have been based solely upon the original TA content, and hence salient information included within Addendum 1 has not been duly considered as part of these comments.

Customer Catchment Area

7.2 For clarification and avoidance of doubt, the customer catchment area utilised for assessing trip distribution through the local highway network is as per the customer catchment plan shown in Appendix G of the original TA.

Trip Assignment

7.3 As part of Addendum 1 further clarification / justification was provided in relation to trip assignment proportions, primarily through HCC requesting justification through secondary trip proportions / trade draw accepted elsewhere on similar Lidl developments.

Secondary Passby / Linked Trip Proportions

7.4 HCC have subsequently confirmed that they accept the 20% secondary pass-by / linked trips proportion utilised within the original TA based on the trip assignment agreed for other Lidl stores in the county, as outlined in Addendum 1.

Primary Transferred Trips / Retail Trade Draw

7.5 In relation to the assumed level of trade draw from the nearby Asda, HCC have indicated that the available trade draw data from comparable Lidl stores provided in support of the 40% trade draw figure being a robust assessment are not considered appropriate based upon the discount foodstores not being located within Hampshire.

7.6 It is unclear why Hampshire specific sites are considered more suitable compared with sites with similar trade circumstances e.g. dominant competitor within proximity but located in neighbouring counties such as West Berkshire, West Sussex and Dorset. With trade draw from the nearby dominant competitor at these sites outlined in Addendum 1 varying from 40% to 67%, with an average of 58%.

7.7 In the interest of moving the application forward, a further review of recent discount store developments has been undertaken, focusing on sites located within Hampshire.

7.8 The Lidl Whiteley store has been accepted by HCC as a comparable store. Therefore, it has been agreed to use ANPR trip rates from this store to assess the potential trip generation associated with the proposed Purbrook Way store.

7.9 Like the Purbrook Way store, Lidl Whiteley has a primary competitor (Tesco) located relatively nearby, with the Retail Impact Assessment (RIA) prepared by RPS to support the original planning application (Winchester City Council Ref: 17/00164/FUL) indicating a 47% trade-draw from Tesco. A TA dated January 2017 was prepared by Stuart Michael Associates Limited to support the Lidl Whiteley application, with a subsequent supplementary note dated May 2017 submitted to address initial HCC comments.

7.10 A comparison of the trip assignment proportions agreed / accepted by HCC for Lidl Whiteley and those currently proposed for Lidl Purbrook Way (based on a 40% trade draw from Asda), are outlined in **Table 7.1**.

	Lidl Whiteley		Lidl Purbrook Way	
Trip Assignment	Weekday	Saturday	Weekday	Saturday
Primary New	20%	20%	48%	54%
Primary Transferred	46%	46%	32%	36%
Secondary (Diverted / Passby / Linked)	34%	34%	20%	10%

Table 7.1: Proposed Lidl Foodstore - Vehicular Trip Assignment

7.11 Another previous application of note is the proposals for the refurbishment, extension and amalgamation of Units 3 and 4 at Solartron Retail Park to facilitate new enlarged single retail premises (Class A1) to be used as a 'foodstore' (Rushmoor Borough Council Ref: 20/00287/FULPP).

7.12 The submitted TA prepared by Vectos to support the application and dated April 2020, outlined trip assignment proportions of 10% Primary New, 30% Primary Transferred and 60% Secondary (Passby / Linked) based on published research.

7.13 Following initial pre-application comments from HCC, within the TA Vectos also undertook a 'Sensitivity Test' based upon an assignment of 20% Primary New, 25% Primary Transferred and 55% Secondary (Passby / Linked).

7.14 Within the subsequent highways consultation response dated 29th May 2020, no objections were raised on this application subject to conditions, with HCC specifically noting that:

"Elsewhere in the County a rate of 80% for linked, pass by or transferred trips with 20% new has been agreed and this has been included by the applicant as a sensitivity test."

7.15 It is noted that the assignment / proportions utilised for the Purbrook Way application provide a far more robust assessment in terms of the level of new primary trips (48% – 54%) and secondary trips (10% – 20%) on the local highway network.

7.16 In conclusion, it is considered that based upon information submitted within Addendum 1 and 2, appropriate justification has been provided to support a 40% trade draw from Asda, and hence c. 50% of trips to the proposed store being new trips to the network provides a robust 'worst-case' assessment based upon proportions agreed / accepted previously by HCC and neighbouring authorities at comparable sites.

Trip Assignment Breakdown

7.17 Based on the updated trip generation figures (outlined within Table 6.1) and further justification being provided for the original TA assignment proportions, **Table 7.2** summarises a breakdown of the various peak hour vehicular trip assignments.

	Weekday AM Peak			Weekday PM Peak			Saturday Peak		
Vehicular Trip Assignment	Arrive	Depart	Total	Arrive	Depart	Total	Arrive	Depart	Total
Primary Transferred	14	12	26	28	28	56	41	41	82
Primary New	22	18	40	41	42	83	62	62	124
Secondary	9	8	17	17	17	34	12	11	23

Table 7.2: Proposed Lidl Foodstore - Vehicular Trip Assignment

7.18 Updated trip assignment calculations are provided in **Appendix I**.

8 Highway Impact & Junction Modelling

8.1 Various comments raised within the HCC consultation response regarding the highway impact assessment and associated modelling included within the original TA are detailed and addressed herein, with updated traffic flow calculations provided in **Appendix J**.

Extent of Assessment

8.2 The original TA considered the impact of proposals at the following junctions:

- Lidl Site Access priority junction;
- Purbrook Way / A3(M) Junction 4 southbound on-slip 4-arm roundabout;
- Purbrook Way / A3(M) Junction 4 northbound off-slip 3-arm roundabout;
- Purbrook Way / Hulbert Road roundabout; and
- Purbrook Way / Stakes Road / Stakes Hill Road / Crookhorn Lane 4-arm roundabout.

8.3 Within their response HCC queried why no consideration was given to the College Road / Purbrook Way junction within the scope of assessment.

8.4 In preparing the original TA and undertaking associated traffic surveys, a review of the highway network and key routes / junctions where development proposals would potentially have a material impact upon traffic / operation was undertaken. With the impact of primarily additional through traffic at the College Road junction not considered to be significant, modelling of this junction was not considered to be necessary. However, considering the committed College Road Campdown development and HCC's comments, modelling of the Purbrook Way / College Road signals has been undertaken as part of this Addendum 2 for completeness.

Baseline Traffic Flows

8.5 Within their response HCC requested that traffic surveys undertaken in October 2016 and submitted alongside a hybrid planning application for development of land east of College Road (Campdown) (Ref: APP/19/01101) be growthed and utilised for the purposes of assessing highway impact.

8.6 Associated survey data has been extracted from the supporting TA prepared by Paul Basham Associates, dated November 2019. The traffic surveys were undertaken on a single midweek day, Thursday 16th October 2016, covering the morning and evening peak commuter periods.

Saturday Traffic Data

8.7 No Saturday survey data was collected as part of the College Road Campdown development and therefore, in the absence of comparable data, the methodology for Saturday baseline traffic flows outlined within the original Mayer Brown TA has been applied.

8.8 In relation to the Purbrook Way / College Road signal junction, no assessment of the Saturday peak has been undertaken primarily due to no current / historic Saturday survey data being available. Based upon baseline traffic flows and trip generation associated with the College Road Campdown development during the Saturday midday peak generally being lower when compared to weekday morning / evening peaks, it follows that should the effect of development traffic on the local highway network be considered acceptable during weekday peak periods then it would also be acceptable during other, less busy, periods of the week such as the Saturday peak.

Purbrook Way / Hulbert Road Roundabout

8.9 In relation to the Purbrook Way / Hulbert Road roundabout, no 2016 surveys were undertaken as part of the College Road Campdown development, with PBA applying development traffic to HCC's model for the junction and HCC's model utilising a 2026 future year assessment based upon 2011 traffic surveys growthed to 2026 using TEMPRO and including committed development associated with the Dunsbury Hill Farm development.

8.10 Consequently, 2026 baseline traffic flows (growthed 2011 survey data + Dunsbury Hill Farm development) have been extracted from the modelling files appended to the College Road Campdown TA to enable a comparable assessment.

Growth Factors

8.11 The baseline traffic survey data has subsequently been growthed to a 2020 and 2025 baseline using TEMPRO and the Middle Layer Super Output Area 'Havant 018', within which the application site and adjacent local highway network is located.

8.12 In the case of the Purbrook Way / Hulbert Road roundabout, 2020 Saturday baseline data was growthed to a 2026 future year baseline to align with the future year junction model utilised as part of the College Road Campdown development for the weekday.

Proposed Development Distribution

8.13 Assigned proposed development trip generation has been distributed onto the local highway network as per the methodology outlined within the original Mayer Brown TA.

Junction Modelling

8.14 PDF versions off the junction modelling output files are appended to this document, whilst junction models have also been provided directly to HCC to aid review.

Lidl Site Access

8.15 A summary of the Lidl site access capacity results for the 'with development' scenarios are shown in **Table 8.1**, with full PICADY outputs provided in **Appendix K**.

	2020 + Development		2025 + Development	
Peak Hour	Max RFC	Max Q veh	Max RFC	Max Q veh
Weekday AM	0.08	0	0.08	0
Weekday PM	0.16	0	0.16	0
Saturday	0.25	0	0.25	0

Table 8.1: PICADY Summary – Lidl Site Access

8.16 **Table 8.1** indicates that the proposed site access arrangement will operate well within capacity during network peak periods post development, with no queuing vehicles predicted on the northbound carriageway.

8.17 Consequently, the proposed access arrangement is considered appropriate without adversely affecting northbound traffic flows along the private access road and hence is predicted to have no material adverse impact upon operation of the roundabout to the south.

Purbrook Way / A3(M) Junction 4 Roundabouts

8.18 2020 queue surveys showed that on the survey day, queuing did not block back from one roundabout to the other. There are two lanes of 120m in both directions, each allowing around 40 vehicles to queue. Therefore, this dumbbell roundabout arrangement was modelled in ARCADY with the two central arms of Purbrook Way being linked using the simple vertical queuing mode.

8.19 A summary of the A3(M) dumbbell roundabout capacity results for the baseline and with development scenarios for the eastern roundabout (marked E) and western roundabout (marked W) are shown in **Table 8.2**, with full ARCADY outputs provided in **Appendix L**.

	2020 Baseline		2020 + Development		2025 Baseline		2025 + Development	
Peak Hour	Max RFC	Max Q veh	Max RFC	Max Q veh	Max RFC	Max Q veh	Max RFC	Max Q veh
Weekday AM	E: 0.77 W: 0.83	E: 3 W: 5	E: 0.79 W: 0.84	E: 4 W: 5	E: 0.89 W: 1.03	E: 8 W:42	E: 0.90 W: 1.04	E: 8 W:48
Weekday PM	E: 0.78 W: 0.78	E: 4 W: 4	E: 0.76 W: 0.75	E: 3 W: 3	E: 0.84 W: 0.91	E: 5 W: 9	E: 0.86 W: 0.92	E: 6 W:10
Saturday	E: 0.62 W: 0.52	E: 2 W: 1	E: 0.65 W: 0.54	E: 2 W: 1	E: 0.65 W:0.54	E: 2 W:1	E: 0.69 W:0.59	E:2 W:1

Table 8.2: ARCADY Summary – Purbrook Way / A3(M) Junction 4 Roundabouts

8.20 **Table 8.2** demonstrates that during the morning peak, RFCs on the western arms of both roundabouts are nearing capacity in the 2025 scenarios, both with and without the proposed Lidl development.

8.21 The western arm of the western roundabout is over capacity, due in part to 190 committed vehicles being added after 2020. The addition of the Lidl traffic has only a marginal impact, with eastbound queuing still being accommodated on the carriageway between the roundabouts and not causing blocking into the adjacent junction. Impact on the A3(M) off-slip is very minimal in terms of queuing and RFC.

8.22 During the evening peak hour, the western arms on both roundabouts are nearing 0.85 capacity in the 2025 scenarios. The additional Lidl traffic results in around one additional vehicle in the queue on each of these western arms, but no blocking into the adjacent junction.

8.23 The queue and RFC on the B&Q / Site arm increase by around one vehicle and 0.20 in the PM peak, as might be expected. This is on a private road so does not impact the public highway. The impact on the A3(M) is marginal with an increase of just 0.01 in RFC and one vehicle in the queue in the evening peak.

8.24 Results for the Saturday modelling shows that the junction works well within capacity in all scenarios, with minimal impact upon the A3(M) off-slip and no blocking to adjacent junctions.

8.25 In relation to expected queuing along the private B&Q access road from the Purbrook Way roundabout, modelling outputs indicate that the highest RFC / queuing occurs on the B&Q arm during the Weekday evening peak, with queuing extending to a maximum of 2 vehicles which will ensure clearance to the proposed Lidl site access.

8.26 Nonetheless, KEEP CLEAR markings will be provided to ensure that if queuing extends back to the Lidl access, adequate space will be maintained to enable vehicles to continue to turn right into the site and maintain free flowing movement northbound.

College Road / Purbrook Way Signal Junction

8.27 An as-built drawing and signal timing information has been provided by HCC for this junction, which was upgraded from a priority junction to signals in 2020.

8.28 Signal phasing, staging and intergreens were taken from the datasheet. Intergreen times for the four Toucan crossings were listed as variable between 5 and 12 seconds; intergreens of 8 seconds were assumed on all of these phases for modelling purposes. A 120 second cycle has been assumed.

8.29 Stages 3 and 4 are run as alternatives, depending on whether one of the pedestrian phases is called. It has been assumed for modelling purposes that these will each run every other cycle. The all-red pedestrian stage 5 has also been run every other cycle.

8.30 Saturation flows were estimated within LinSig based on geometry.

8.31 A summary of the College Road / Purbrook Way signal junction modelling results is shown in **Table 8.3**, with full LinSig outputs provided in **Appendix M**.

Arm	Weekday AM		Weekday PM	
	DoS (%)	Queue	DoS (%)	Queue
2020 Baseline				
Purbrook Way (East)	78.4	24	93.8	37
College Road	78.2	10	94.3	18
Purbrook Way (West)	75.9	13	91.3	11
Practical Reserve Capacity	+14.9%		-4.8%	
2020 + Development				
Purbrook Way (East)	78.7	24	95.6	40
College Road	78.5	11	96.2	20
Purbrook Way (West)	76.9	13	91.3	11
Practical Reserve Capacity	+14.3%		-6.9%	
2025 Baseline				
Purbrook Way (East)	103.7	54	114.7	112
College Road	102.2	35	114.8	67
Purbrook Way (West)	94.9	22	114.9	48
Practical Reserve Capacity	-15.2%		-27.6%	
2025 + Development				
Purbrook Way (East)	103.9	54	116.6	124
College Road	104.0	38	116.7	71
Purbrook Way (West)	101.5	32	114.9	49
Practical Reserve Capacity	-15.5%		-29.7%	

Table 8.3: LinSig Summary – College Road / Purbrook Way Signals

8.32 **Table 8.3** shows that the junction is predicted to operate within capacity for the 2020 with and without development scenarios in the morning peak hour. In the evening peak, capacity is being approached on all arms, but delay figures indicated that queues should typically clear each cycle. The addition of Lidl traffic has only a marginal impact upon the degrees of saturation and queuing in the 2020 scenarios.

8.33 By 2026, the junction is considerably over capacity with significant queuing in both peak hours. This is due in large part to the addition of the College Road Campdown development traffic alongside the general increase in background traffic. Once a model is over capacity, even a small increase in traffic can result in a disproportionate level of queuing, even with minimal degree of saturation changes. The addition of the Lidl traffic only results in a small change in degrees of saturation, but an increase in queuing of up to 12 vehicles due to the junction already being over capacity.

8.34 It is understood that further upgrades to the junction may be implemented in the future, by the College Road Campdown development to accommodate associated traffic.

Purbrook Way / Stakes Road / Stakes Hill Road / Crookhorn Lane Roundabout

8.35 The model for this junction was set up as part of the original TA, including validation and intercept corrections for each peak hour to reflect the observed queuing from the 2020 surveys.

8.36 The traffic flows in the model have been updated to reflect the new baseline flows, but the intercept corrections and general model settings are unaltered from that submitted with the original TA.

8.37 A summary of the Stakes Hill Road roundabout capacity results for the baseline and with development scenarios are shown in **Table 8.4**, with full ARCADY outputs provided in **Appendix N**.

	2020 Baseline		2020 + Development		2025 Baseline		2025 + Development	
Peak Hour	Max RFC	Max Q veh	Max RFC	Max Q veh	Max RFC	Max Q veh	Max RFC	Max Q veh
Weekday AM	1.45	148	1.47	154	1.59	222	1.60	228
Weekday PM	1.13	65	1.16	78	1.25	130	1.28	145
Saturday	0.91	8	0.95	12	0.99	17	1.03	27

Table 8.4: ARCADY Summary – Purbrook Way / Stakes Road Roundabout

8.38 **Table 8.4** shows that the junction is considerably over capacity during the weekday peak hours and is nearing capacity during the Saturday baseline peak hour. However, the results indicate that the impact of the Lidl traffic at this location is marginal and only results in relatively minor increases in RFC, reflecting the capacity issues.

8.39 It is understood that there are plans to upgrade this junction to signals as part of the West of Waterlooville project to address congestion issues.

8.40 At the time of writing, the currently proposed layout was not available to Mayer Brown to assess following a request to HCC, but this indicates that the current arrangement is known to be over capacity and requires improvements to accommodate existing and consented development traffic separate to the Lidl proposals.

Purbrook Way / Hulbert Road Roundabout – Threshold Assessment

8.41 A detailed threshold assessment has been undertaken in relation to the predicted net change in traffic as a result of the proposed development, indicating absolute change and percentage change, to highlight whether detailed junction capacity modelling should be undertaken.

8.42 Typically, detailed junction capacity modelling is required if there is a 5% increase, or an increase of 30 vehicles, on individual arms / total junction flows, with values below these thresholds generally considered to be consistent with daily variations / fluctuations in traffic flows.

8.43 In relation to the net change in traffic, the proposed development is envisaged to result in no change in overall traffic travelling through the Purbrook Way / Hulbert Road Roundabout, primarily because of the predicted trade draw from the nearby Asda supermarket associated with transferred primary trips by residents located to the west of the application site (transferring from Asda to Lidl) offsetting predicted new primary trips from residential areas to the east.

8.44 When assessing the proportional change in baseline traffic, the threshold assessment indicates that highest impact on any single junction arm during the assessed peak periods is a change of 0.6% during the weekday AM, 1.8% during the weekday PM and 3.2% during the Saturday.

8.45 It should be reiterated that resulting threshold assessment impacts detailed above are based upon a robust assessment in terms of trade draw from the Asda superstore / percentage of new trips on the network, and hence in reality the resulting impact is expected to be lower than outlined here, with proposals potentially resulting in a net reduction in trips through the junction.

8.46 Based upon the detailed threshold assessment results, the original TA concluded that no detailed junction capacity assessment is deemed necessary at the Purbrook Way / Hulbert Road roundabout as part of the current proposals based upon no material impact upon traffic flows.

8.47 Nonetheless, HCC have requested that junction modelling should be undertaken for the Purbrook Way / Hulbert Road Roundabout based upon the roundabout being sensitive to traffic flow change and HCC wanting to be satisfied that any changes in traffic flow, associated with committed development and the proposed development can be accommodated within the current junction design.

Purbrook Way / Hulbert Road Roundabout – Junction Modelling

8.48 Two of the five arms at this junction are signal controlled, with pedestrian crossings on the approach and exit lanes of one additional arm.

8.49 The LinSig model has been set up based on the modelling output specification for the College Road Campdown development, which utilised the HCC junction model. Parameters such as lane lengths, saturation flows, staging and intergreens have been set in line with the HCC model.

8.50 Where certain parameters (e.g. platoon dispersion) were not shown in the modelling outputs, professional judgement was used to determine these settings.

8.51 A summary of the LinSig capacity results for the baseline and with development scenarios are shown in **Tables 8.5** and **8.6** respectively, with full LinSig outputs provided in **Appendix O**.

8.52 All scenarios have been optimised for green splits and offsets.

Arm	Weekday AM Peak		Weekday PM Peak		Saturday Peak	
	DoS (%)	Queue	DoS (%)	Queue	DoS (%)	Queue
2026 Baseline						
Hulbert Road (N)	49.4	4	62.0	1	46.3	1
Purbrook Way (E)	64.4	1	68.5	4	71.7	4
Circulatory at Purbrook Way (E)	68.3	3	81.7	5	71.7	3
Hulbert Way (S)	63.5	1	63.0	1	47.9	1
ASDA	32.5	0	73.1	2	73.5	2
Purbrook Way (W)	69.7	4	85.2	7	74.0	5
Circulatory at Purbrook Way (W)	71.3	3	82.1	5	73.9	4
PRC over all lanes	**+26.2%**		**+5.6%**		**+21.6%**	

Table 8.5: LinSig Summary – Purbrook Way / Hulbert Rd Rndbt – 2026 Baseline

Arm	Weekday AM Peak		Weekday PM Peak		Saturday Peak	
	DoS (%)	Queue	DoS (%)	Queue	DoS (%)	Queue
2026 + Lidl Development						
Hulbert Road (N)	50.4	1	62.7	1	45.8	1
Purbrook Way (E)	65.3	4	70.5	4	66.5	4
Circulatory at Purbrook Way (E)	67.5	3	81.6	5	74.6	4
Hulbert Way (S)	65.3	2	65.4	1	49.9	1
ASDA	32.2	0	74.0	2	71.0	2
Purbrook Way (W)	72.6	5	87.2	8	74.3	5
Circulatory at Purbrook Way (W)	74.7	4	84.2	6	75.1	4
PRC over all lanes	**+20.4%**		**+3.2%**		**+19.8%**	

Table 8.6: LinSig Summary – Purbrook Way / Hulbert Rd Rndbt – With Development

8.53 These results indicate that the junction will be within capacity in all scenarios with no significant queuing on any arm. The change in flows as a result of the Lidl traffic only has a marginal impact upon queuing.

8.54 These results indicate that the junction will be within capacity in all scenarios with no significant queuing on any arm. The change in flows as a result of the Lidl traffic only has a marginal impact upon queuing.

8.55 The junction is understood to work on a MOVA basis which is likely to improve operation in reality, and saturation flows are likely to be higher than the 1900 used which will enable more traffic to travel through the junction.

Strategic Road Network Impact

8.56 In relation to the net change in traffic utilising the Strategic Road Network (SRN), the proposed development is to have minimal impact upon trips travelling to / from the A3(M). During the identified peak hour periods, the proposals are expected to result in up to 3 additional vehicles per hour utilising the A3(M) on-slip or off-slip.

8.57 This level of additional traffic, 1 vehicle every 20 minutes on each slip road, is envisaged to have no material impact upon the operation of the SRN.

8.58 Additionally, it is noted that this level of additional traffic is consistent with that outlined within the original TA and upon which Highways England's formal recommendation dated 3rd February 2021 was based, offering no objection to the development proposals.

9 Travel Plan

9.1 The proposed Lidl Purbrook Way Travel Plan has been updated in line with the comments received from HCC as appropriate and a revised version submitted for comment / review.

10 Summary

10.1 This Transport Assessment Addendum 2 has been produced in response to formal consultation comments provided by Hampshire County Council highways dated 8th March 2021, regarding proposals to construct a new Lidl foodstore off Purbrook Way in Havant, planning application reference APP/20/01221.

10.2 The comments provided by the local highway authority were based solely on the content of the Transport Assessment prepared by Mayer Brown dated November 2020 and submitted as part of the application.

10.3 A Transport Assessment Addendum dated February 2021 was submitted in response to initial discussions with highway officers at Hampshire County Council, although it is understood that this content was not reviewed / considered as part of the formal consultation comments provided.

10.4 Salient points dealt with within this Second Addendum, include:

- **Site Accessibility** – outlining alterations / providing clarification where required with regard to infrastructure associated with the proposed development to facilitate accessibility via non-car modes of travel in line with comments received.
- **Personal Injury Accident Data** – reference is made to additional detailed analysis requested by highways, provided within Addendum dated February 2021.
- **Vehicular Access** – providing clarification and additional plans requested, relating to the site access and Purbrook Way roundabout visibility splays and planned alterations to the existing private road restraint system.
- **Parking** – responding to suggested parking overspill on Purbrook Way.
- **Trip Generation Assessment & Distribution** – providing updated trip generation and assignment figures in line with highway comments, alongside additional clarification / justification provided in relation to robustness of trip assignment proportions utilised.
- **Highway Impact & Junction Modelling** – outlining updated methodology utilised in line with highway comments / requests and resulting modelling results, indicating that the proposed development is not envisaged to result in any significant impact upon local highway network operation.

10.5 Based upon the content provided within this Addendum to address the additional information requested by HCC, it is considered that suitable detail has been provided to demonstrate that proposals are considered appropriate in transport planning terms.

APPENDIX A: Hampshire CC Highways Consultation Response – 8th March 2021

Hampshire County Council

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Date	8th March 2021	*Email*	Chris.Hirst@hants.gov.uk

For the attention of D Haywood

Land to the west of B&Q, Purbrook Way, Havant

Erection of retail foodstore with associated car parking, access, landscaping and engineering works.

Thank you for consultation on the above planning application. The applicant has submitted a Transport Assessment (TA) to address the transport implications of the proposed development. Following an initial review of the TA, the Highway Authority held a meeting with the applicant on 11th February 2021 to discuss matters noted within the document. The following response is provided following a review of the TA.

Development Proposals
Planning approval is sought for a 1,899sqm GFA Lidl store. The proposed development is located to the west of the Purbrook Way/Hulbert Road roundabout (Asda Roundabout), in-between the roundabout with the A3(M) and the B&Q store off Purbrook Way (A3(M) Junction 4 southbound on-slip roundabout). The site is served via a private access road making the northern arm of the roundabout and currently serves the B&Q store only.

The aforementioned Purbrook Way/Hulbert Road roundabout is located to the east of the site which serves the wider Bedhampton/Leigh Park area. Purbrook Way continues to the west onwards towards the Widley and Purbrook areas.

Site Accessibility

Walking and Cycle Access
Pedestrian and cycle connectivity to the site is currently provided on the

northern side of Purbrook Way via a shared use path. The shared use facilities head westbound along Purbrook Way up to the junction with College Road where it crosses to the southern side and connects with facilities onwards to Waterlooville and eastbound towards the Purbrook Way/Hulbert Road roundabout. There is no footway provision available on the southern side of Purbrook Way or on the private access road leading to B&Q.

Pedestrian connectivity into the site is proposed via a new link to be constructed from Purbrook Way. The pedestrian link is proposed to connect to the southern side of the car park which in-turn connects to the store entrance. As noted above, no pedestrian facilities are proposed along the private access road to the site, meaning the new link is the only way for pedestrians to access the development.

Given the current lack of pedestrian and cycle facilities and connections into the site, the Highway Authority have requested that the applicant widens the new pedestrian connection from Purbrook Way to 3m, therefore facilitating shared use access for pedestrian and cyclists. The applicant has acknowledged the need for cycle connectivity into the site and will provide additional information detailing the shared use facility. It is noted at this stage that the 1:15 alignment of the footway/cycleway is too steep and must be reconsidered alongside LTN 1/20. Given the difference in levels, a pedestrian barrier may need to be erected for safety. The applicant will also need to consider whether the OWC team at HCC will need to assess the culvert shown underneath the proposed pedestrian/cycle access. Where the pedestrian/cycle link joins the existing shared use path on Purbrook Way, the applicant will need to provide visibility splays for cyclists and demonstrate at this stage that this can be achieved.

Pedestrian and cycle access from the west will require the northern arm of the aforementioned A3(M) Junction 4 roundabout to be crossed via the existing dropped kerb facilities. It is noted that the northbound pedestrian/cyclist visibility splay at the crossing on the eastern side of Purbrook Way is constrained by the existing vegetation and also by the B&Q sign. The proposed development will exacerbate both traffic flow and pedestrian/cycle movements at the junction, increasing the chance of conflict for pedestrians/cyclists trying to cross the roundabout. The applicant should therefore ensure that the visibility splays are kept clear for pedestrians and cyclists to cross safely and maintained in perpetuity. This will involve the removal of the existing vegetation and relocation of the sign which currently obstructs the visibility splays. The applicant should demonstrate the achievable visibility splays in accordance with HCC TG3 and LTN 1/20 and set out pedestrian and cycle improvements at the crossing to ensure safe access across the roundabout for sustainable modes of transport.

Bus

The nearest bus stops to the site are available circa 100m on Purbrook Way. The stops currently benefit from sheltered waiting facilities and a timetable which provide services to Havant and Portsmouth every 30 minutes and wider destinations such as Petersfield every hour. This is considered acceptable.

Rail

The nearest rail station to the site is located within Bedhampton which is over 2km away from the proposed site. Rail travel does therefore not represent an alternative mode of travel to the store given the distance set out above.

Personal Injury Accident Data

Personal Injury Accident (PIA) data has been gathered from Hampshire Constabulary for a five-year period spanning up to 31/12/2019. The Highway Authority note that the data is now over a year out of date and therefore recent accidents may have been missed off the analysis. However, the latest injury accident data has been checked internally for the most recent information available back to 2016 for the Purbrook Way/Hulbert Road roundabout. Between June 2016 and April 2020, 12 collisions were identified across the roundabout. The junction has therefore been identified by the Highway Authority as requiring safety improvement works to reduce the number of observed accidents.

The Highway Authority disagrees with the assumption made within the TA that the causation factors behind the accidents were largely human factors i.e. driver error and that no measures are therefore required in order to prevent further accidents at the junction. The level of accidents at this location suggests that there may be highway safety improvements required to improve driver safety. The recent accident data reaffirms this position by identifying accident clusters across at the Purbrook Way toucan crossing and the Purbrook Way/Hulbert Road roundabout itself.

The Highway Authority are yet to agree the proposed development's trip generation, distribution and trip reassignment. Until this is established the Highway Authority are not able to determine whether the proposed development will exacerbate the existing accident trend at the roundabout as a result of the associated additional traffic.

The Highway Authority will explore this matter further with the applicant once the trip rates and distribution have been agreed.

Vehicular Access

Vehicular access to the store is proposed to the western side of the site via a new priority junction onto the private access road. The proposed access arrangement is detailed in drawing number B/LIDLPURBROOKWAY.1/01 Rev C.

Following a review of this drawing, the Highway Authority wish to make the following comments:

The proposed access is not perpendicular to the existing main road that serves B&Q. The skewed alignment will require a slightly wider access and differing radii to accommodate safe access egressing manoeuvres. This will also increase the likelihood of conflicts in the vicinity of the public highway. It is also noted that the proposed retaining wall is very close to the visibility splay and must be designed outside of required visibility, the current proximity means there is a risk during construction that the actual alignment means that the retaining wall obstructs achievable visibility.

The proposals affect an existing road restraint system that connects to the highway's road restraint system. This barrier is important for public safety and any changes/alterations must be evaluated using risk assessment tool and guidance in the appropriate standards. Please refer to: Design & Maintenance Guidance for Local Authority Roads Provision of Road Restraint Systems on Local Authority Roads. (2011). This information needs to be provided to demonstrate that an acceptable solution for the amendments of the barrier can be achieved.

Existing entry visibility to the roundabout is substandard with trees, vehicle restraint systems and signs all obstructing required views. Full roundabout entry visibility will need to be provided based on measured speeds to ensure safe access to the highway.

As previously mentioned, no pedestrian facilities are provided through the car park. The single point of pedestrian access is proposed directly from Purbrook Way which connects to the store's entrance.

Parking

In their capacity as local parking authority, Havant Borough Council should determine whether the proposed quantum of parking meets the adopted parking standards. It is noted that the applicant has undertaken a parking accumulation survey for Havant Borough Council to comment specifically on.

A total of 132 spaces are proposed on-site. It is noted that the parking bay dimensions are provided above the adopted parking standards, whilst the number of bays is provided in line with Havant's adopted parking SPD. The Highway Authority are satisfied that the parking provision is sufficient, however there is concern that drivers will stop on Purbrook Way to access the site rather than utilise the car park, especially given the location of the pedestrian/cycle access to the site. A contribution would therefore be required to implement a TRO on Purbrook Way if necessary, to prevent any such parking.

Trip Generation Assessment

To assess the trip generation from the proposed store, the applicant has utilised the TRICS database to analyse discount food stores at edge of town locations. It is noted that a total of 4 sites were identified when calculating the following trip rates:

- TRICS AM Peak Hour (two-way): 3.769.
- TRICS PM Peak Hour (two-way): 9.306.
- TRICS Sat Peak Hour (two-way): 12.029.

To robustly test the trip rates identified through the TRICS assessment, trip rates have also been derived from a recently opened Lidl store in Whiteley. The store is representative of the proposed stores' location in Purbrook and therefore is a valid comparator. To calculate the trip rates, ANPR data was obtained from October 2019 which is recognised as a pre-Covid neutral month. Utilising the ANPR data resulted in the following trip rates:

- ANPR AM Peak Hour (two-way): 4.384.
- ANPR PM Peak Hour (two-way): 9.438.

- ANPR Sat Peak Hour (two-way): 12.047.

The ANPR provided trip rates greater than those assessed through TRICS. It is therefore agreed that the applicant adopts the ANPR trip rates to ensure that the trip generation from the proposed site is robustly assessed.

The trip generation has been further filtered by taking account of the variety of trip forms generated by the development. The applicant's TA identifies that trips have been broken down into the following categories:

- Primary Trips.
    - Primary Transferred Trips.
    - Primary New Trips.
- Secondary/Pass-by Trips.

The Highway Authority acknowledges that not all trips generated by the new food store will be new on the network but requires a robust assessment to understand the rationale behind the split of the trips noted above. This assessment is addressed under Trip Distribution below.

Trip Distribution
To calculate the trip distribution to the site, the location of existing Lidl stores has been examined to understand the likelihood of customers travelling to the existing or new store. The applicant concludes that customers will reside in Purbrook, Widley and Bedhampton. However, Appendix G of the TA shows an extended catchment area which encompasses Leigh Park. The Highway Authority consider that whilst Leigh Park is served by an existing Lidl store, there is likely to be a percentage of these customers who are located closer to the new store and also those who are attracted to the new facilities who should be accounted for in the distribution assessment. Confirmation is requested from the applicant that this is the case.

The applicant has indicated that 40% of customers to the new store are likely to be reassigned from the nearby ASDA store. In the absence of a Retail Impact Assessment for the development, the Highway Authority require further evidence to justify the 40% retail draw assumption. This figure seems high given the retail offer of a Lidl does not match that of an Asda and whilst it is likely some shoppers will switch stores; it is also likely that they will be required to visit both.

Similarly, a 20% pass-by trip assumption has been within the TA without supporting evidence to justify the figure. The Highway Authority request further justification from the applicant to confirm that the 20% pass-by assumption is not overly robust when considering new trip generation on the network.

The Highway Authority require the points above to be addressed before the percentage of new trips on the network and the overall site distribution can be agreed.

Highway Impact & Junction Modelling

To understand the baseline traffic conditions in the area, the applicant undertook manual classified turning counts in September 2020. The following junctions were surveyed:

- Purbrook Way / A3(M) Junction 4 southbound 4-arm roundabout;
- Purbrook Way/ A3(M) Junction 4 northbound 3-arm roundabout;
- Purbrook Way / Hulbert Road / B2150 signalised roundabout; and
- Purbrook Way / Stakes Road / Stakes Hill Road / Crookhorn Lane 4-arm roundabout.

Clarification is required from the applicant as to why the College Road/Purbrook Way signal junction was not assessed with the junctions mentioned above.

To review the robustness of the survey results, traffic surveys undertaken in 2016 in support of the Campdown development (APP/19/01101) were growthed to a 2020 baseline via TEMPRO. The 6% traffic growth assumption between 2016 – 2020 is considered acceptable.

It is noted that the September 2020 results were down 18% in the AM peak hour and 2% in the PM peak hour and are therefore considered the less robust data because of the impact of the Covid-19 pandemic. The applicant has therefore included a 20% uplift on the weekday morning peak flows and a 5% uplift on the weekday evening peak flows to account for the impact of the Covid-19 pandemic on traffic flows. No uplift is proposed on the Saturday peak hour data in line with DfT statistics.

The Highway Authority considers the use of the growthed TEMPRO data acceptable in this instance and should be used as the basis for carrying out junction modelling.

The following scenarios have been assessed for junction modelling within the TA across the AM, PM and Saturday peak hours:

- 2020 without development;
- 2020 with development;
- 2025 without development + committed development; and
- 2025 with development + committed development.

The scenarios above are considered acceptable for the purpose of assessing the impact of the development.

<u>Junction Modelling</u>
The applicant has undertaken modelling for the following junctions:

- Site Access;
- Purbrook Way/A3(M) Junction 4 Roundabouts; and
- Purbrook Way/Stakes Road/Stakes Hill Road/Crookhorn Lane Roundabout.

As noted above, the Highway Authority has requested that the applicant revisits their distribution and pass-by/primary transferred trip assumptions to

understand what impact the proposed development will have on the local highway network. Currently, the Highway Authority disagrees that the development will not have an impact on the Purbrook Way/Hulbert Road roundabout which will also need to be modelled once the trip rates and distribution have been agreed.

In the absence of an agreed trip rate assumption and distribution, the Highway Authority have not provided detailed comments on the model outputs. Detailed comments will follow once these matters have been agreed and the models updated accordingly.

Travel Plan
This Full Travel Plan has been assessed using Hampshire County Council's (HCC's) evaluation criteria for the assessment of travel plans – "A guide to development related travel plans". Whilst the quality of this Travel Plan is generally good, it still requires some amendments before it can be approved.

Background
The Policy Section should be expanded to further reference national and local policy documents relevant to the TP. These may include, but are not limited to:

- Planning Practice Guidance 'Travel Plans, Transport Assessments and Statements' (2014)
- IHT's 'Guidelines for Providing Journeys on Foot' (2000)
- CIHT's 'Buses in Urban Developments' (2018)
- DfT's Manual for Streets (2007)
- Hampshire's Local Transport Plan 2011-2031 (2013)
- Hampshire County Council's 'A Guide to Development Related Travel Plans' (2009)
- Hampshire County Council's Parking Standards
- LPA Parking SPD (where applicable)
- LPA Clean Air Policy (where applicable)
- LPA Local Plan (where applicable)
- LPA Electric Vehicle SPD (where applicable)
- Neighbourhood Plans (where applicable)

Consultation and Partnerships
The Travel Plan should contain evidence of preliminary liaisons with local cycle shops and public transport operators to scope the possibility of arranging for discounts on equipment and services respectively. These communications can then form the basis for further negotiations between these companies and the Travel Plan Coordinator (TPC).

Targets
The proposed targets are set out in Section 7 of the Travel Plan. An overall target of an 8% reduction in Single Occupancy Car Use over a five-year period is proposed. This should be amended to a minimum of 10% over 5 years to be in line with the County Council's guidelines.

Measures
It would be useful to include the following measures;
Walking:

- Promotion of safe local walking routes including the provision of route maps
- Improvements to (and maintenance of) the walking network and signage
- Promotion of free health apps

Cycling:

- Improvements to (and maintenance of) the cycle network
- Provision of cycle route maps and improvements to signage
- Bike Service Stations (staff and visitors)

Public Transport:

- Employers can consider provision of interest free loans to purchase season tickets (up to £5000 can be provided without tax implications)
- Guaranteed ride home for staff in emergency situations

Car Park Management

- Allocate priority parking space to car sharers

An action plan should be included in the appendix which details each measure to be conducted as part of the Travel Plan (including resources to be allocated to the TPC role). The action plan should be similar in layout to the example table below. A cost estimate for these items must be included which is used to approximate a Travel Plan Cash Deposit (see “Delivery and Enforcement).

Objective	Action	Start Date	Due Date	Responsibility	Mode affected	Cost Estimate

Table 1 - Example Action Plan

Roles and Responsibilities

Section 5 should include firmer details with regards to the Travel Plan Coordinator. The end user is known and therefore there should be further details as set out below;

- Job title
- Organisation
- Proposed start date of Travel Plan Coordinator
- Time to be spent per week on the Travel Plan
- Number of weeks per year to be working on the Travel Plan
- Cost per hour
- End date (cannot be earlier than before the end of the Travel Plan)
- Overall cost

Monitoring

A monitoring timetable should be included in Section 8 which sets out the level of report for each year. A baseline should be undertaken in Year 1 with a yearly monitoring report. The Travel Plan should have a minimum duration of 5 years.

A minimum 35% response rate must be attained in order for travel questionnaire surveys to be considered statistically significant. If this cannot be achieved, then discussions should be had with HCC regarding carrying out TRICS SAM or ATC surveys.

There are currently no measures in place to encourage members of staff to complete a questionnaire survey. Entry into a prize draw could be offered to those who complete a survey, although it should be noted that the prize should not be travel-related (e.g., bus tickets, cycle vouchers, etc).

Delivery and Enforcement
There should be a reference in the document to a means for enforcing the Travel Plan. Typically, this is accomplished through a Section 106 agreement. A commitment to pay HCC's monitoring and approval fees should be included in Section 10.
Sanctions should be in place in the event that the commitments stated in the Travel Plan are not met. This includes any remedial measures which could be implemented if the targets are not met, e.g., personalised transport planning.

Recommendation
The Highway Authority require the following information:

- Further information regarding the proposed pedestrian access into the site;
- An updated plan which confirms the new pedestrian access will be widened to a minimum of 3m to accommodate cyclists, addressing all of the comments raised above;
- Updated analysis of the PIA data;
- Updated drawings for the site access;
- Clarification regarding the pass-by and primary transferred trip assumptions made in the TA;
- Clarification regarding the approach taken when assessing the traffic distribution;
- Updated model outputs once the trip rates and distribution have been agreed;
- Consideration towards the modelling of the Purbrook Way/Hulbert Road roundabout; and
- Updates to the Travel Plan.

If the Planning Authority are minded to determine the application ahead of the additional information being provided please contact me for our recommendation.

I trust that the above is clear. Should you have any queries, please do not hesitate to contact Chris Hirst on the number noted above.

Yours Sincerely,

Gemma McCart – Transport Team Leader

APPENDIX B: Updated Proposed Site Layout

LEGEND

- BOUNDARY LINE
- PROPOSED ZEBRA CROSSING AND TACTILE PAVING
- PROPOSED PARENT AND CHILD CAR PARKING SPACES
- PROPOSED DISABLED CAR PARKING SPACES
- PROPOSED LANDSCAPE AREAS
- PROPOSED BUILDING
- PROPOSED CYCLE PARKING
- PROPOSED TROLLEY BAY

RIBA Chartered Practice | CIAT Registered Practice | RICS

IMPORTANT INFORMATION
Dimensions to be confirmed on site prior to start of works and ODAS to be informed of discrepancies immediately. No dimensions to be scaled from this drawing.
All materials and works are to be carried out in accordance with current British Standards, Planning Approval, current Building Regulations and Codes of Practice.
Party Wall Act - Notices under the Party Wall Act are to be served by the property owner or appointed third party by property owner.
Health and Safety - CDM 2015 Regulations apply to all construction works to be carried out and apply to designers, contractors and the client. As such all parties have duties under these regulations.

0 10m 20m 30m 40m 50m

SCALE 1:500 @ A1

Notes

Rev	Date	Description	Revised By	Checked By
B	25.03.21	UPDATED IN LINE WITH CLIENT COMMENTS. REMOVE FLAGPOLE TO REAR OF SITE 3No VERTICAL CYCLE RACKS IN WAREHOUSE	KW	
A	05.03.21	UPDATED IN LINE WITH CLIENT COMMENTS	LMC	

Revisions

Client:
LIDL GREAT BRITAIN LTD.
FOXES PARK, BROWNHILL WAY,
SOUTHAMPTON, SO16 0AW

Project Name:
HAVANT

Drawing Title:
PROPOSED SITE PLAN

Drawing Status: PLANNING

Project No: 19139
Drawing No: AD 110_REV B
Drawn By: LMC
Checked By: PAH
Date: AUG 2020
Scale @ A1: 1:250

ARCHITECTURE

ONE DESIGN ARCHITECTURAL SERVICES
One Design Architectural Services Ltd
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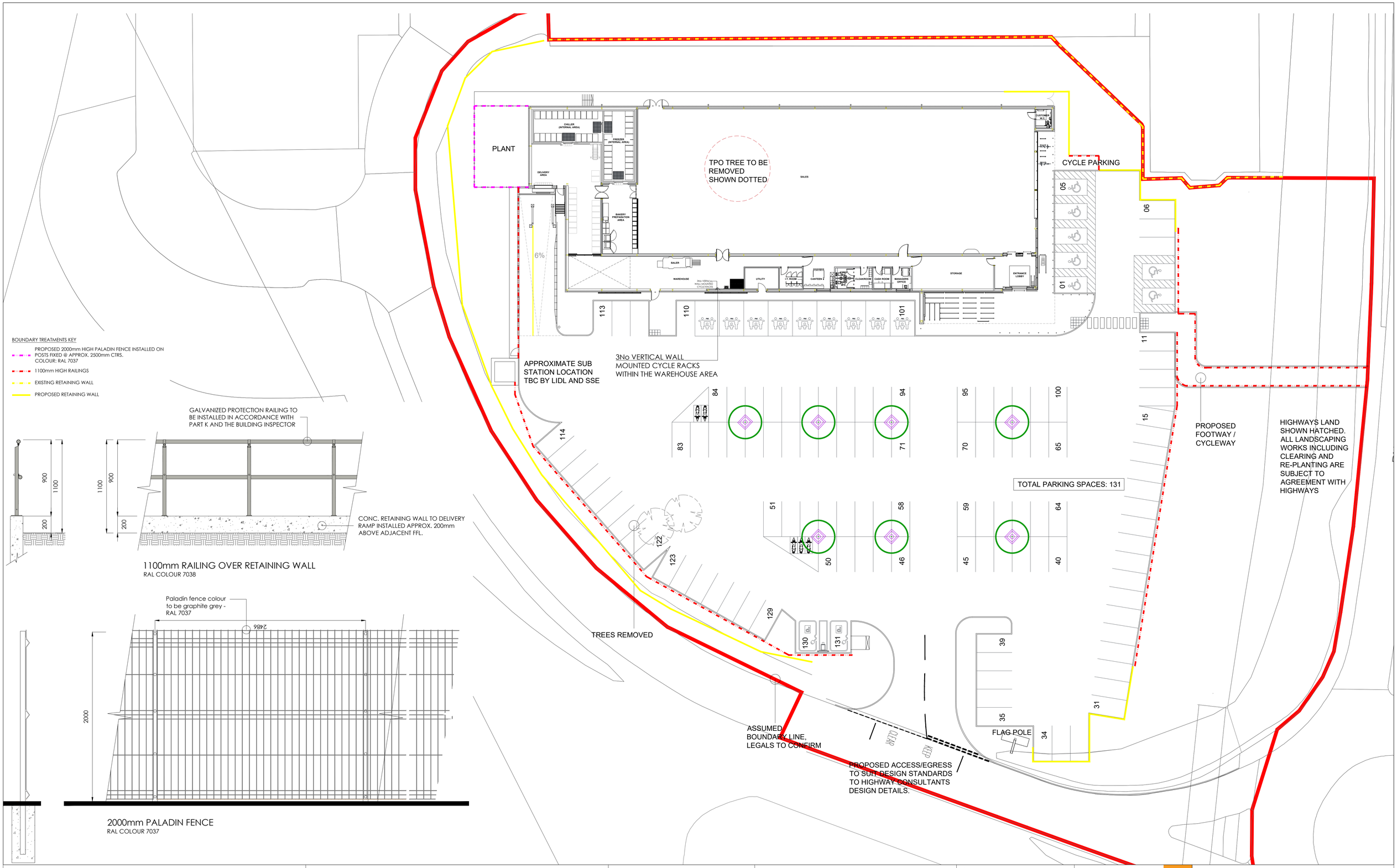
Phase II, Ashley Lane, Shipley,
West Yorkshire, BD17 7DB
Tel: 01274 591188
www.onedesignarchs.com
mail@onedesignarchs.com
Registered in England & Wales No: 8355643

APPENDIX C: Boundary Treatment Plan



RIBA Chartered Practice | CIAT Registered Practice | RICS

IMPORTANT INFORMATION
Dimensions to be confirmed on site prior to start of works and ODAS to be informed of discrepancies immediately. No dimensions to be scaled from this drawing.
All materials and works are to be carried out in accordance with current British Standards, Planning Approval, current Building Regulations and Codes of Practice.
Party Wall Act - Notices under the Party Wall Act are to be served by the property owner or appointed third party by property owner.
Health and Safety - CDM 2015 Regulations apply to all construction works to be carried out and apply to designers, contractors and the client. As such all parties have duties under these regulations.

Notes

Rev	Date	Description	Revised By	Checked By
B	25.03.21	UPDATED IN LINE WITH CLIENT COMMENTS. REMOVE FLAGPOLE TO REAR OF SITE 3No VERTICAL CYCLE RACKS IN WAREHOUSE	KW	
A	15.03.21	UPDATED IN LINE WITH CLIENT COMMENTS	LMC	

Revisions

Client:
LIDL GREAT BRITAIN LTD.
FOXES PARK, BROWNHILL WAY,
SOUTHAMPTON, SO16 0AW

Project Name:
HAVANT

Drawing Title:
PROPOSED SITE PLAN
BOUNDARY TREATMENTS

Drawing Status: PLANNING

Project No: 19139
Drawing No: AD 114_REV B
Drawn By: EH
Checked By: LMC
Date: JULY 2020
Scale @ A1: 1:250

ARCHITECTURE

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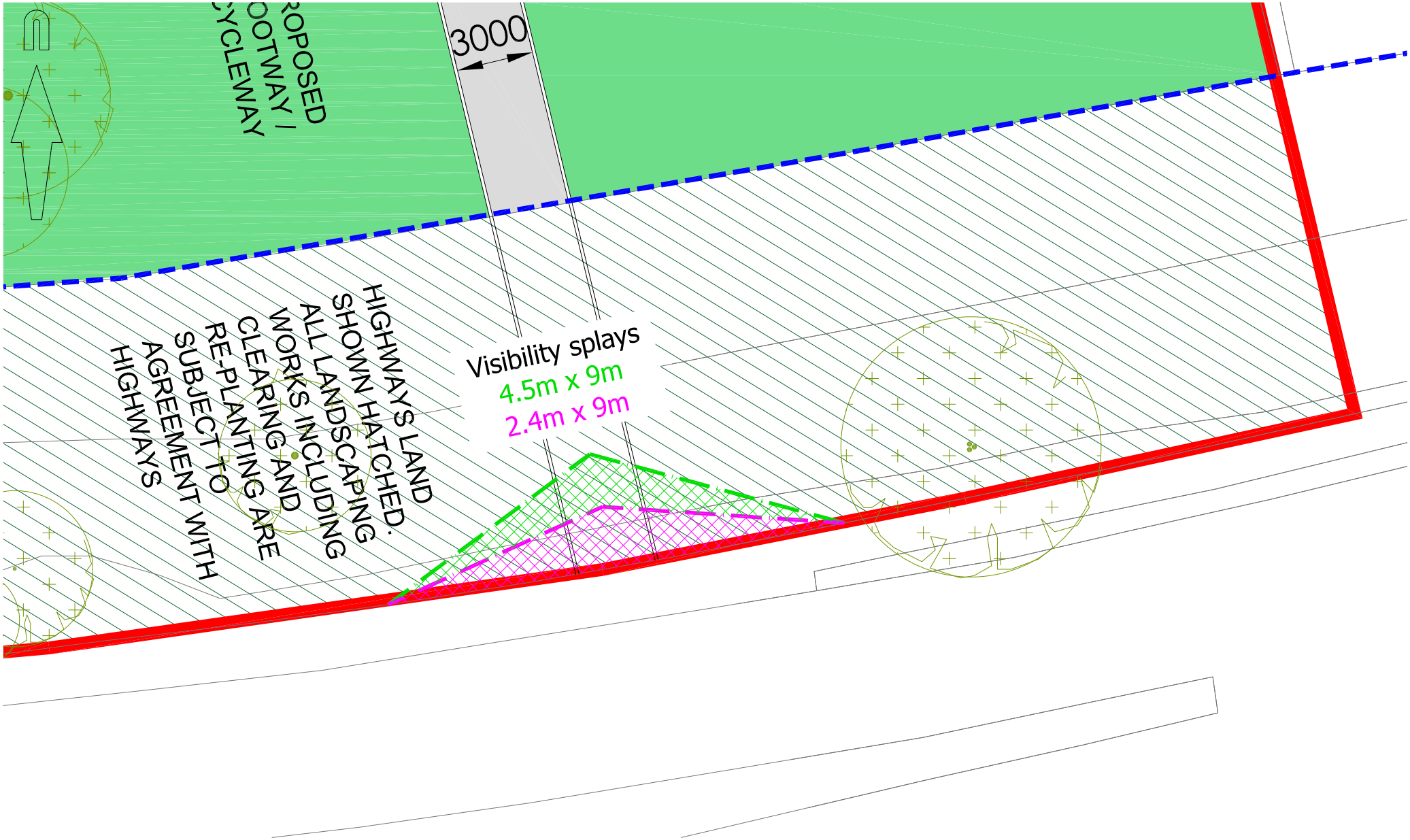
Tel: 01274 591188
www.onedesignarchs.com
mail@onedesignarchs.com
Registered in England & Wales No: 8355643

APPENDIX D: Pedestrian / Cycle Link Visibility Plan



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bristoloffice@mayerbrown.co.uk www.mayerbrown.co.uk

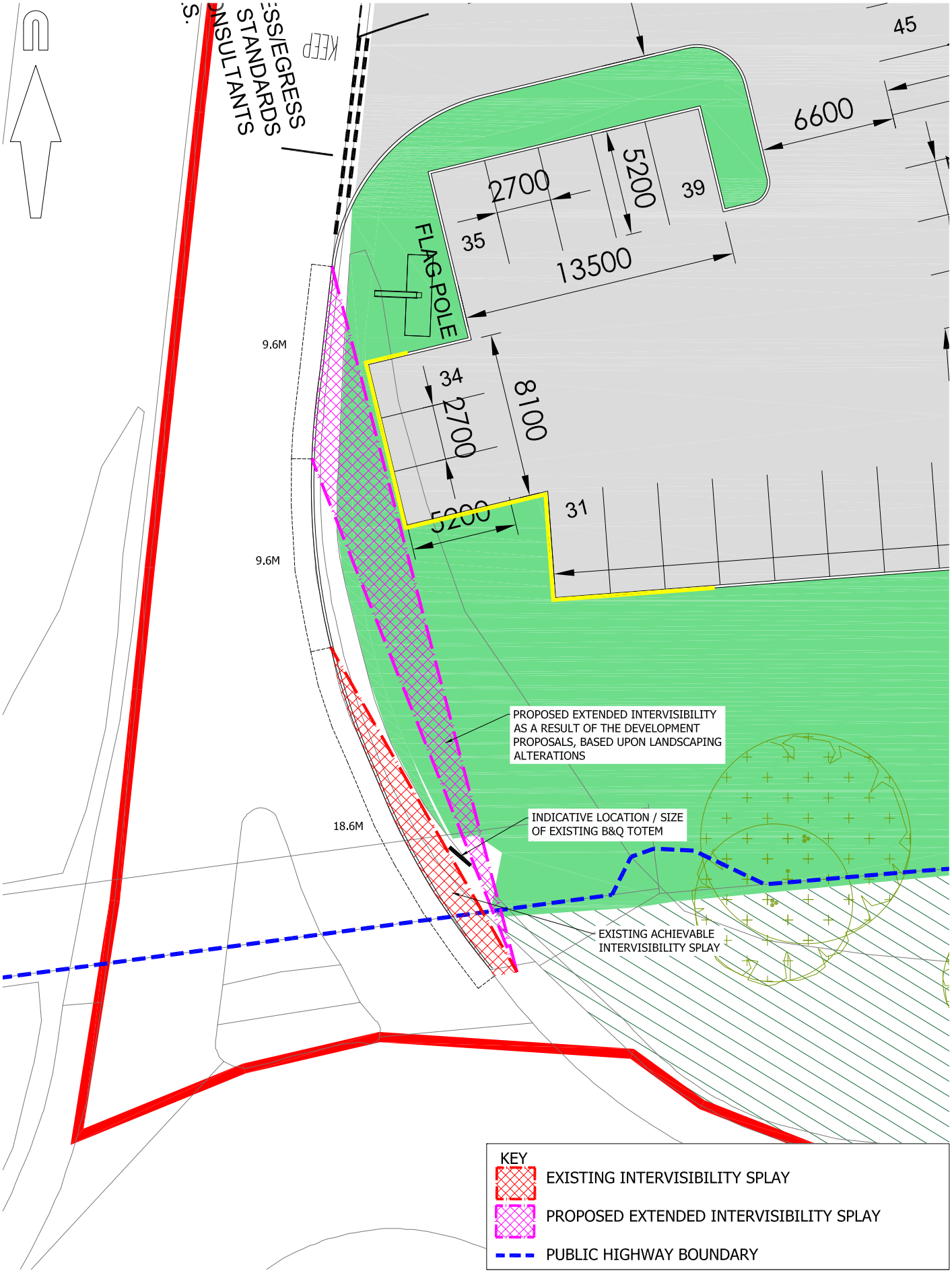
client
LIDL GREAT BRITAIN LIMITED

project
PROPOSED NEW FOODSTORE
PURBROOK WAY, HAVANT

title
PROPOSED PEDESTRIAN / CYCLE LINK
VISIBILITY SPLAYS

scale	1:200 @ A4	drawn by	RB	checked by	-
date	MARCH 2021	cad file	210329 - 02 - PED LINK		
drawing number	B/LIDLPURBROOKWAY2.1/02			rev.	-

APPENDIX E: Crossing Point Visibility



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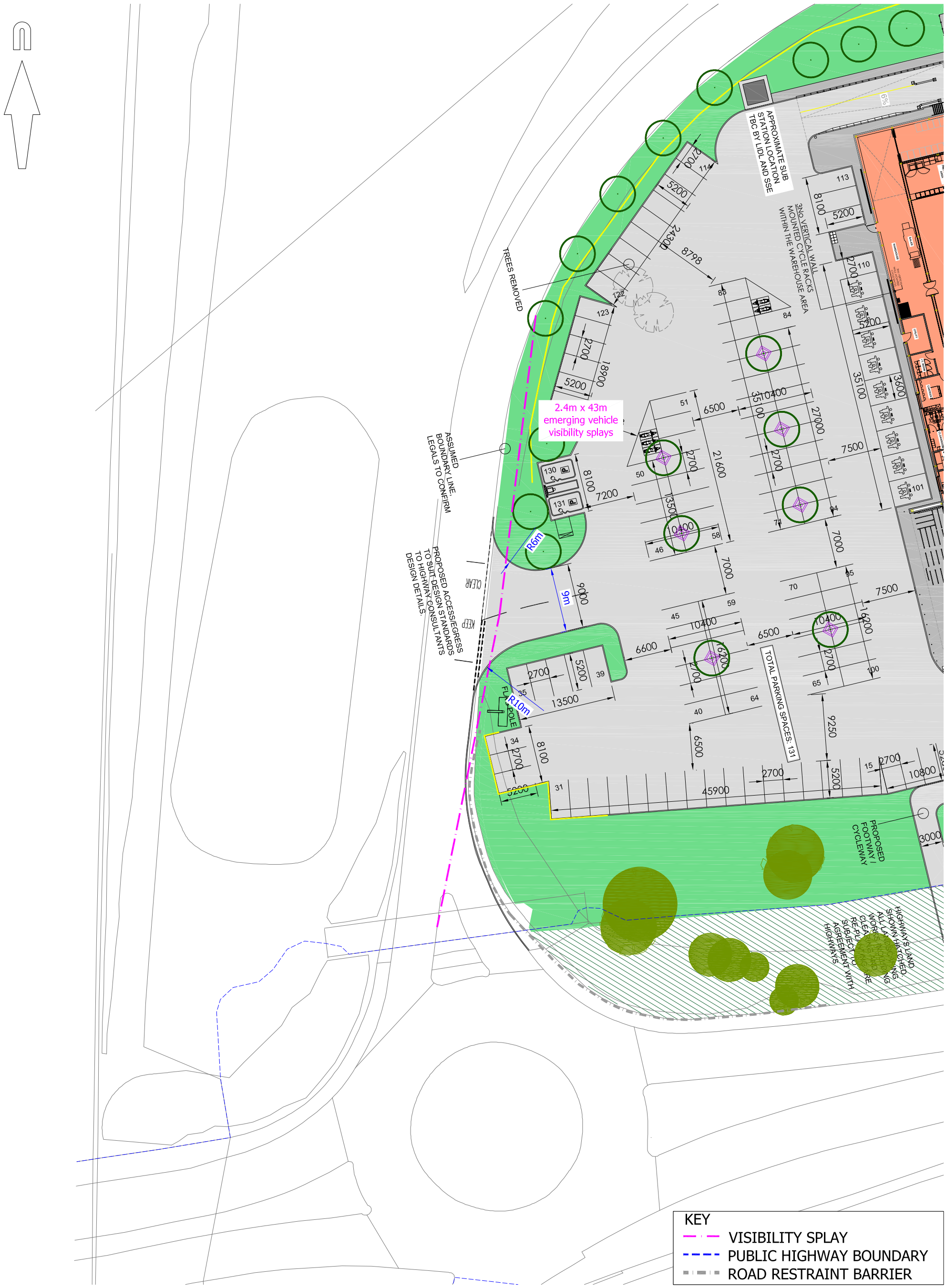
client
LIDL GREAT BRITAIN LIMITED

title
PROPOSED NEW FOODSTORE
PURBROOK WAY, HAVANT

CROSSING POINT INTERVSIBILITY SPLAY

scale	1:250 @ A4	drawn by	RB	checked by	-
date	MARCH 2021	cad file	210329 - 03 - INTERVISIBILTY		
drawing number	B/LIDLPURBROOKWAY2.1/03	rev.	-		

APPENDIX F: Updated Site Access Plan



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client
LIDL GREAT BRITAIN LIMITED

title
PROPOSED LIDL FOODSTORE
PURBROOK WAY, HAVANT

PROPOSED ACCESS ARRANGEMENT

scale	1:500 @ A3	drawn by	RB	checked by	-
date	MARCH 2021	cad file	210329 - ACCESS		
drawing number	B/LIDLPURBROOKWAY.1/01	rev.	D		

APPENDIX G: Road Restraint System Plan

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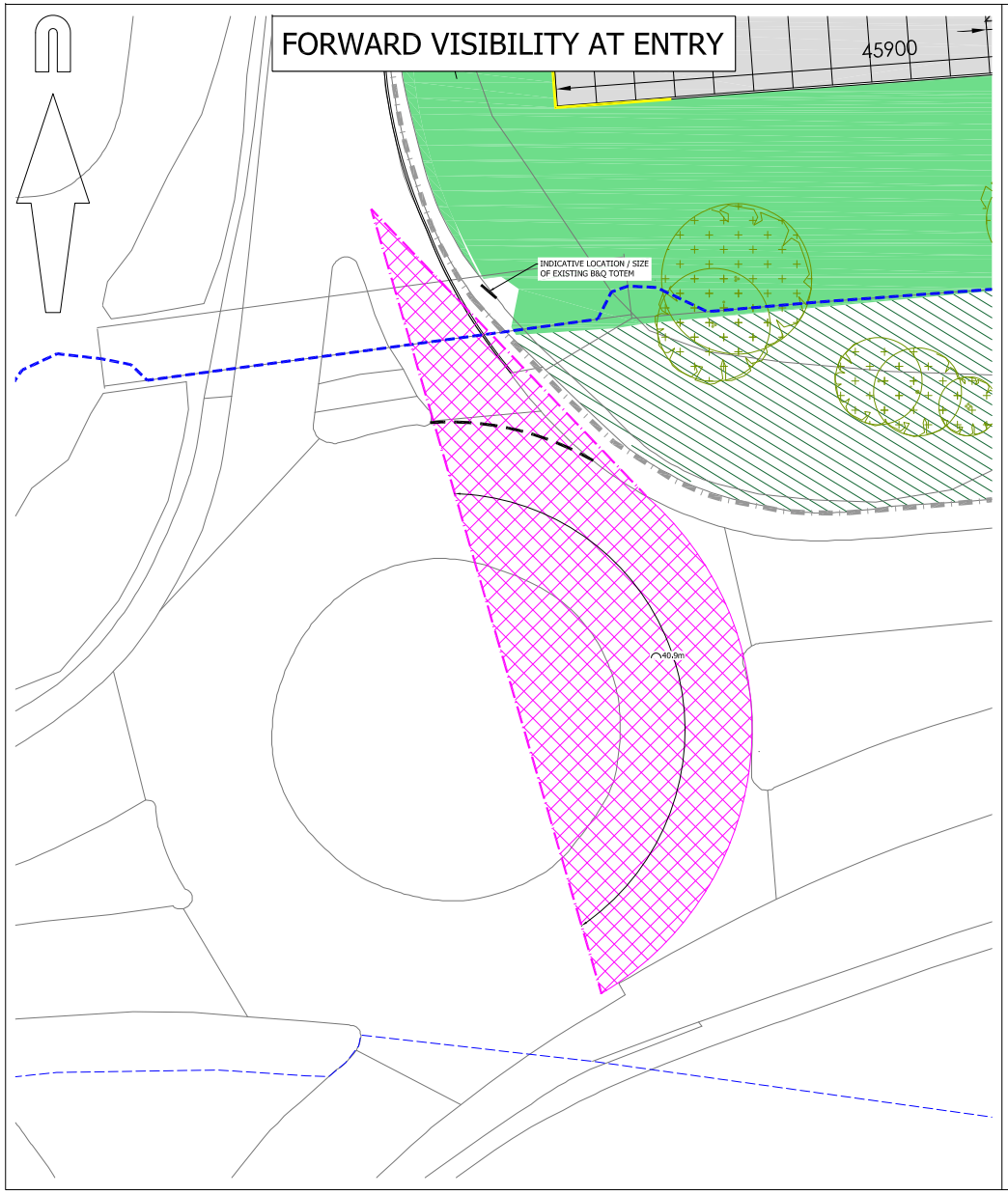
client
LIDL GREAT BRITAIN LIMITED

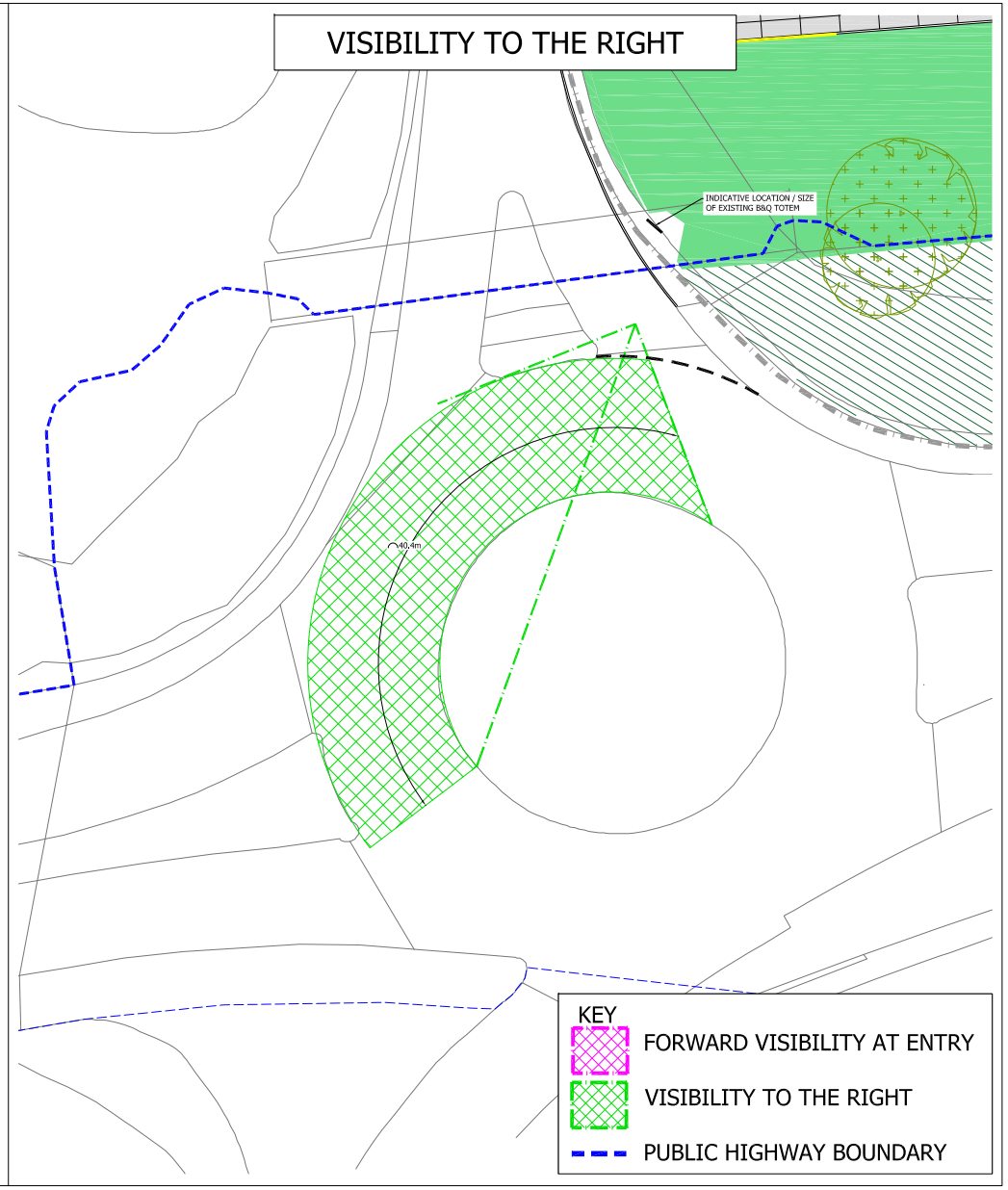
title
PROPOSED NEW FOODSTORE
PURBROOK WAY, HAVANT

ROAD RESTRAINT BARRIER SYSTEM PLAN

scale	1:500 @ A4	drawn by	RB	checked by	-
date	MARCH 2021	cad file	210329 - 04 - BARRIERS		
drawing number	B/LIDLPURBROOKWAY2.1/04	rev.	-		

APPENDIX H: B&Q Arm Roundabout Entry Visibility Splay Plan





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client
LIDL GREAT BRITAIN LIMITED

project
PROPOSED NEW FOODSTORE
PURBROOK WAY, HAVANT

title
B&Q / PURBROOK WAY ROUNDABOUT
B&Q ARM ENTRY VISIBILITY SPLAYS

scale	1:250 @ A4	drawn by	RB
checked by	-		
date	MARCH 2021	cad file	210329 - 05 - RNDBT VIS
drawing number	B/LIDLPURBROOKWAY2.1/05	rev.	-

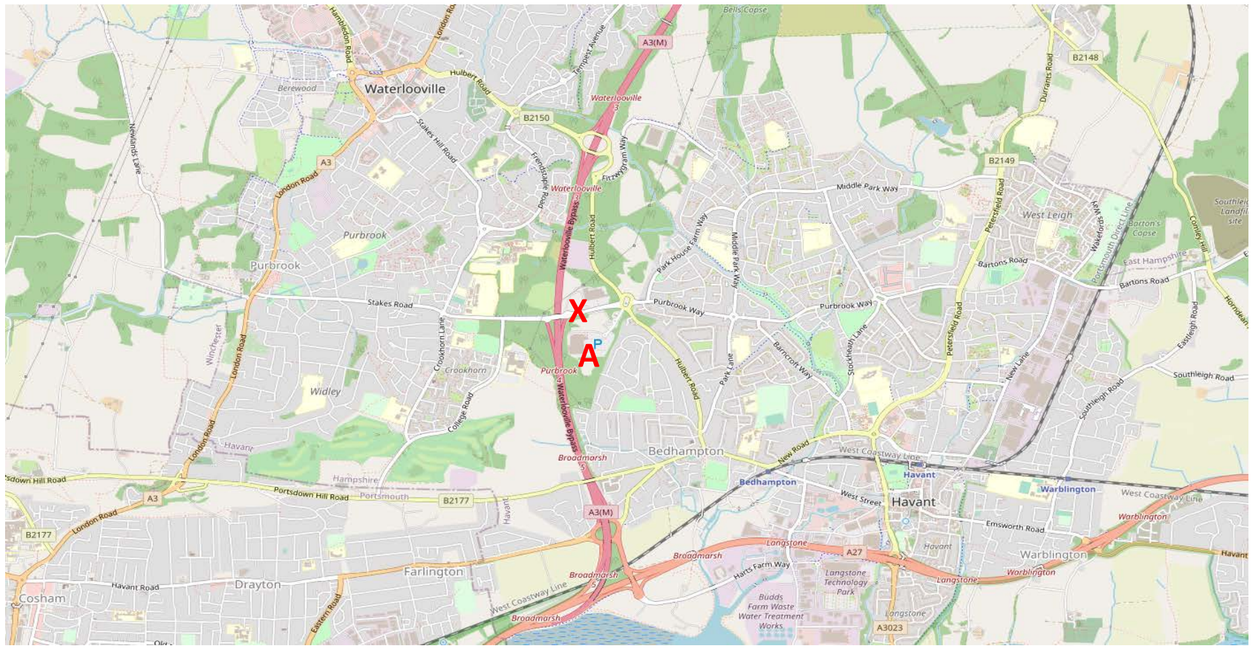
APPENDIX I: Trip Assignment Calculations

PROJECT: **LIDL Purbrook Way, Havant**

TRADE DRAW

Trade Draw % Source
Simply planning estimate - email 24/09/20

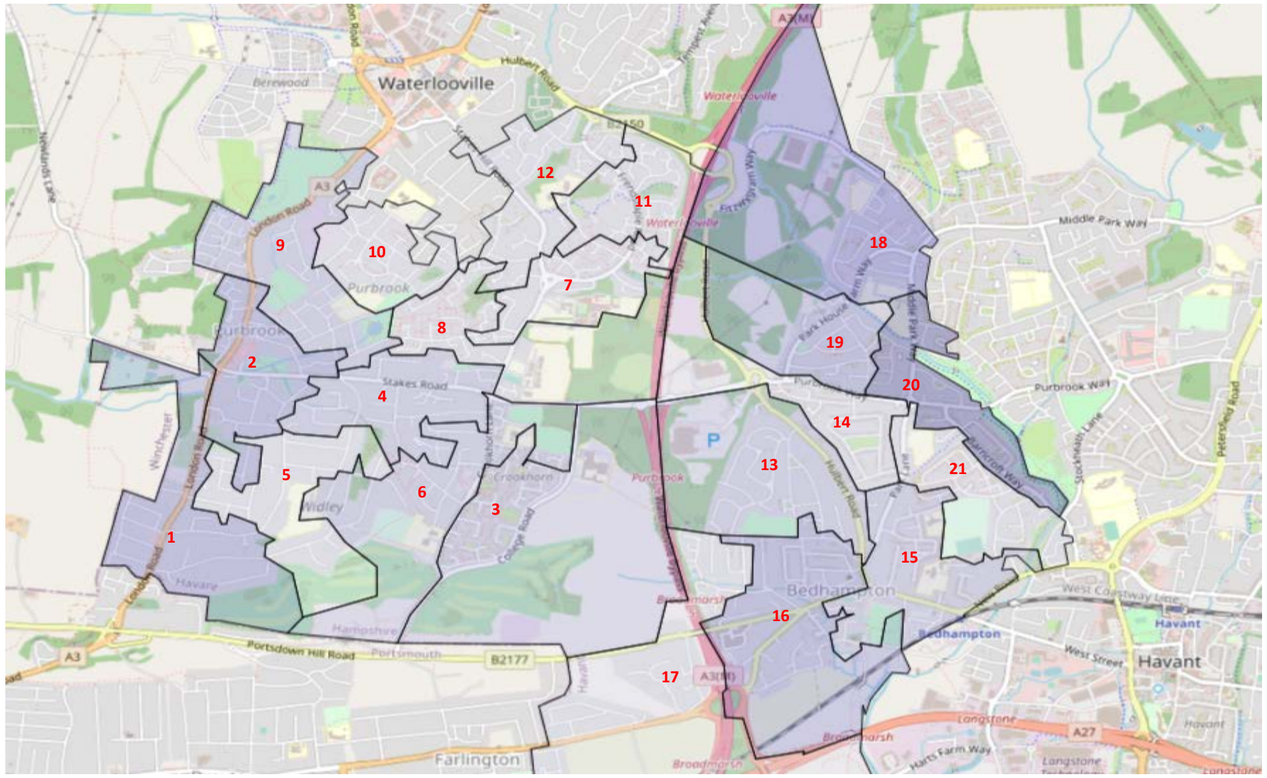
	Destination	Trade Draw	POST CODE
A	Asda Havant Supercentre	40.00%	PO9 3QW
O	Other	60.00%	
X	Proposed Lidl Store	100%	PO9 3QJ



PROJECT: **LIDL Purbrook Way, Havant**

CUSTOMER DRAW

	Area	2011	%	POST CODE	
1	lsoa2011:E01022947 : Havant 011A	1,650	5.2%		1
2	lsoa2011:E01022948 : Havant 011B	1,639	5.2%		2
3	lsoa2011:E01022949 : Havant 011C	1,525	4.8%		3
4	lsoa2011:E01022950 : Havant 011D	1,501	4.7%		4
5	lsoa2011:E01022951 : Havant 011E	1,393	4.4%		5
6	lsoa2011:E01022952 : Havant 011F	1,463	4.6%		6
7	lsoa2011:E01022960 : Havant 007A	1,421	4.5%		7
8	lsoa2011:E01022961 : Havant 007B	1,382	4.4%		8
9	lsoa2011:E01022962 : Havant 005B	1,480	4.7%		9
10	lsoa2011:E01022959 : Havant 005A	1,458	4.6%		10
11	lsoa2011:E01022964 : Havant 007D	1,376	4.4%		11
12	lsoa2011:E01022963 : Havant 007C	1,412	4.5%		12
13	lsoa2011:E01022907 : Havant 018B	1,512	4.8%		13
14	lsoa2011:E01022899 : Havant 018A	1,381	4.4%		14
15	lsoa2011:E01022911 : Havant 018E	1,502	4.7%		15
16	lsoa2011:E01022909 : Havant 018C	1,577	5.0%		16
17	lsoa2011:E01032605 : Havant 018F	1,362	4.3%		17
18	lsoa2011:E01022901 : Havant 006A	1,711	5.4%		18
19	lsoa2011:E01022902 : Havant 006B	1,572	5.0%		19
20	lsoa2011:E01022900 : Havant 010A	1,854	5.9%		20
21	lsoa2011:E01022908 : Havant 010D	1,453	4.6%		21
		31,624			



PROJECT: LIDL Purbrook Way, Havant

PRIMARY TRIP GENERATION - TRANSFERRED OR NEW

DOES CURRENT DRIVING ROUTE UTILISE ONE OR MORE IDENTIFIED KEY JUNCTIONS

CENSUS OUTPUT AREAS		Asda Havant Supercentre	Other
		A	O
lsoa2011:E01022947 : Havant 011A	1	Y	N
lsoa2011:E01022948 : Havant 011B	2	Y	N
lsoa2011:E01022949 : Havant 011C	3	Y	N
lsoa2011:E01022950 : Havant 011D	4	Y	N
lsoa2011:E01022951 : Havant 011E	5	Y	N
lsoa2011:E01022952 : Havant 011F	6	Y	N
lsoa2011:E01022960 : Havant 007A	7	Y	N
lsoa2011:E01022961 : Havant 007B	8	Y	N
lsoa2011:E01022962 : Havant 005B	9	Y	N
lsoa2011:E01022959 : Havant 005A	10	Y	N
lsoa2011:E01022964 : Havant 007D	11	Y	N
lsoa2011:E01022963 : Havant 007C	12	Y	N
lsoa2011:E01022907 : Havant 018B	13	Y	N
lsoa2011:E01022899 : Havant 018A	14	Y	N
lsoa2011:E01022911 : Havant 018E	15	Y	N
lsoa2011:E01022909 : Havant 018C	16	Y	N
lsoa2011:E01032605 : Havant 018F	17	Y	N
lsoa2011:E01022901 : Havant 006A	18	Y	N
lsoa2011:E01022902 : Havant 006B	19	Y	N
lsoa2011:E01022900 : Havant 010A	20	Y	N
lsoa2011:E01022908 : Havant 010D	21	Y	N

		40%	60%		
		A	O	TRANSFER	NEW
5.2%	1	2.1%	0.0%	2.1%	3.1%
5.2%	2	2.1%	0.0%	2.1%	3.1%
4.8%	3	1.9%	0.0%	1.9%	2.9%
4.7%	4	1.9%	0.0%	1.9%	2.8%
4.4%	5	1.8%	0.0%	1.8%	2.6%
4.6%	6	1.9%	0.0%	1.9%	2.8%
4.5%	7	1.8%	0.0%	1.8%	2.7%
4.4%	8	1.7%	0.0%	1.7%	2.6%
4.7%	9	1.9%	0.0%	1.9%	2.8%
4.6%	10	1.8%	0.0%	1.8%	2.8%
4.4%	11	1.7%	0.0%	1.7%	2.6%
4.5%	12	1.8%	0.0%	1.8%	2.7%
4.8%	13	1.9%	0.0%	1.9%	2.9%
4.4%	14	1.7%	0.0%	1.7%	2.6%
4.7%	15	1.9%	0.0%	1.9%	2.8%
5.0%	16	2.0%	0.0%	2.0%	3.0%
4.3%	17	1.7%	0.0%	1.7%	2.6%
5.4%	18	2.2%	0.0%	2.2%	3.2%
5.0%	19	2.0%	0.0%	2.0%	3.0%
5.9%	20	2.3%	0.0%	2.3%	3.5%
4.6%	21	1.8%	0.0%	1.8%	2.8%
100.0%		40.0%	0.0%	**40.0%**	**60.0%**
		100.0%	0.0%		

TRANSFER %	100%	0%
NEW %	0%	100%

40% **PRIMARY TRANSFERRED**

60% **PRIMARY NEW**

LIDL TRIP ASSIGNMENT

	WEEKDAY AM PEAK			WEEKDAY PM PEAK			SATURDAY PEAK		
	08:00 - 09:00			16:30 - 17:30			11:45 - 12:45		
	%	Arrivals	Departures	%	Arrivals	Departures	%	Arrivals	Departures
TOTAL VEHICLES	100%	45	38	100%	86	87	100%	115	114
SECONDARY	20%	9	8	20%	17	17	10%	12	11
PRIMARY (COMBINED)	80%	36	30	80%	69	70	90%	103	103
PRIMARY - TRANSFERRED	32%	14	12	32%	28	28	36%	41	41
PRIMARY - NEW	48%	22	18	48%	41	42	54%	62	62

PROJECT: **LIDL Purbrook Way, Havant**

PROPOSED LIDL - PRIMARY TRIP ROUTING - NETWORK ENTRY / EXIT POINT

ARRIVALS

	B&Q	HULBERT RD	PURBROOK WAY	B2150	ASDA ACCESS	A3(M)	COLLEGE RD	CROOKHORN RD	STAKES RD	STAKES HILL RD	
1	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
2	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
3	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
4	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
5	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
6	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
7	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
8	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
9	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
10	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
11	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
12	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
13	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
14	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	100%
15	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
16	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
17	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
18	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
19	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
20	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
21	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
	0	0	4.5	3.5	0	1	1	1	6	4	

		B&Q	HULBERT RD	PURBROOK WAY	B2150	ASDA ACCESS	A3(M)	COLLEGE RD	CROOKHORN RD	STAKES RD	STAKES HILL RD	
1,650	1	0	0	0	0	0	0	0	0	1650	0	
1,639	2	0	0	0	0	0	0	0	0	1639	0	
1,525	3	0	0	0	0	0	0	1525	0	0	0	
1,501	4	0	0	0	0	0	0	0	0	1501	0	
1,393	5	0	0	0	0	0	0	0	0	1393	0	
1,463	6	0	0	0	0	0	0	0	1463	0	0	
1,421	7	0	0	0	0	0	0	0	0	0	1421	
1,382	8	0	0	0	0	0	0	0	0	0	1382	
1,480	9	0	0	0	0	0	0	0	0	1480	0	
1,458	10	0	0	0	0	0	0	0	0	1458	0	
1,376	11	0	0	0	0	0	0	0	0	0	1376	
1,412	12	0	0	0	0	0	0	0	0	0	1412	
1,512	13	0	0	0	1512	0	0	0	0	0	0	
1,381	14	0	0	690.5	690.5	0	0	0	0	0	0	
1,502	15	0	0	0	1502	0	0	0	0	0	0	
1,577	16	0	0	0	1577	0	0	0	0	0	0	
1,362	17	0	0	0	0	0	1362	0	0	0	0	
1,711	18	0	0	1711	0	0	0	0	0	0	0	
1,572	19	0	0	1572	0	0	0	0	0	0	0	
1,854	20	0	0	1854	0	0	0	0	0	0	0	
1,453	21	0	0	1453	0	0	0	0	0	0	0	
		0	0	7280.5	5281.5	0	1362	1525	1463	9121	5591	31624
		0.00%	**0.00%**	**23.02%**	**16.70%**	**0.00%**	**4.31%**	**4.82%**	**4.63%**	**28.84%**	**17.68%**	
		0%	0%	23%	17%	0%	4%	5%	4%	29%	18%	100%

SUMMARY

	ARRIVALS
B&Q	0%
HULBERT RD	0%
PURBROOK WAY	23%
B2150	17%
ASDA ACCESS	0%
A3(M)	4%
COLLEGE RD	5%
CROOKHORN RD	4%
STAKES RD	29%
STAKES HILL RD	18%
	100%

DEPARTURES

	B&Q	HULBERT RD	PURBROOK WAY	B2150	ASDA ACCESS	A3(M)	COLLEGE RD	CROOKHORN RD	STAKES RD	STAKES HILL RD	
1	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
2	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
3	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%
4	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
5	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
6	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%
7	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
8	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
9	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
10	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%
11	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
12	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%
13	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
14	0%	0%	50%	50%	0%	0%	0%	0%	0%	0%	100%
15	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
16	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	100%
17	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	100%
18	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
19	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
20	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
21	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%
	0	0	4.5	3.5	0	1	1	1	6	4	

	B&Q	HULBERT RD	PURBROOK WAY	B2150	ASDA ACCESS	A3(M)	COLLEGE RD	CROOKHORN RD	STAKES RD	STAKES HILL RD	
1	0	0	0	0	0	0	0	0	1650	0	
2	0	0	0	0	0	0	0	0	1639	0	
3	0	0	0	0	0	0	1525	0	0	0	
4	0	0	0	0	0	0	0	0	1501	0	
5	0	0	0	0	0	0	0	0	1393	0	
6	0	0	0	0	0	0	0	1463	0	0	
7	0	0	0	0	0	0	0	0	0	1421	
8	0	0	0	0	0	0	0	0	0	1382	
9	0	0	0	0	0	0	0	0	1480	0	
10	0	0	0	0	0	0	0	0	1458	0	
11	0	0	0	0	0	0	0	0	0	1376	
12	0	0	0	0	0	0	0	0	0	1412	
13	0	0	0	1512	0	0	0	0	0	0	
14	0	0	690.5	690.5	0	0	0	0	0	0	
15	0	0	0	1502	0	0	0	0	0	0	
16	0	0	0	1577	0	0	0	0	0	0	
17	0	0	0	0	0	1362	0	0	0	0	
18	0	0	1711	0	0	0	0	0	0	0	
19	0	0	1572	0	0	0	0	0	0	0	
20	0	0	1854	0	0	0	0	0	0	0	
21	0	0	1453	0	0	0	0	0	0	0	
	0	0	7280.5	5281.5	0	1362	1525	1463	9121	5591	31624
	0.00%	**0.00%**	**23.02%**	**16.70%**	**0.00%**	**4.31%**	**4.82%**	**4.63%**	**28.84%**	**17.68%**	
	0%	0%	23%	17%	0%	4%	5%	4%	29%	18%	100%

SUMMARY

	DEPATURES
B&Q	0%
HULBERT RD	0%
PURBROOK WAY	23%
B2150	17%
ASDA ACCESS	0%
A3(M)	4%
COLLEGE RD	5%
CROOKHORN RD	4%
STAKES RD	29%
STAKES HILL RD	18%
	100%

LIDL Purbrook Way, Havant

LIDL TRIP GENERATION - PRIMARY TRIPS - PROPOSED

WEEKDAY AM PEAK

	ARR	DEP
PRIMARY TRIPS (COMBINED)	36	30

WEEKDAY PM PEAK

	ARR	DEP
PRIMARY TRIPS (COMBINED)	69	70

SATURDAY PEAK

	ARR	DEP
PRIMARY TRIPS (COMBINED)	103	103

HIGHWAY NETWORK ACCESS POINT

	ARR	DEP	ARR	DEP
B&Q	0%	0%	0	0
HULBERT RD	0%	0%	0	0
PURBROOK WAY	23%	23%	8	7
B2150	17%	17%	6	5
ASDA ACCESS	0%	0%	0	0
A3(M)	4%	4%	1	1
COLLEGE RD	5%	5%	2	2
CROOKHORN RD	4%	4%	2	1
STAKES RD	29%	29%	10	9
STAKES HILL RD	18%	18%	7	5
	100%	100%	36	30

	ARR	DEP	ARR	DEP
B&Q	0%	0%	0	0
HULBERT RD	0%	0%	0	0
PURBROOK WAY	23%	23%	16	16
B2150	17%	17%	12	12
ASDA ACCESS	0%	0%	0	0
A3(M)	4%	4%	3	3
COLLEGE RD	5%	5%	2	4
CROOKHORN RD	4%	4%	3	3
STAKES RD	29%	29%	20	20
STAKES HILL RD	18%	18%	12	13
	100%	100%	68	71

	ARR	DEP	ARR	DEP
B&Q	0%	0%	0	0
HULBERT RD	0%	0%	0	0
PURBROOK WAY	23%	23%	24	24
B2150	17%	17%	17	17
ASDA ACCESS	0%	0%	0	0
A3(M)	4%	4%	4	4
COLLEGE RD	5%	5%	5	5
CROOKHORN RD	4%	4%	4	4
STAKES RD	29%	29%	30	30
STAKES HILL RD	18%	18%	19	19
	100%	100%	103	103

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A		0		0
LIDL ACCESS	B	0		30	30
PRIVATE RD (S)	C		36		36
	Total	0	36	30	66

		A	B	C	Total
PRIVATE RD (N)	A		0		0
LIDL ACCESS	B	0		71	71
PRIVATE RD (S)	C		68		68
	Total	0	68	71	139

		A	B	C	Total
PRIVATE RD (N)	A		0		0
LIDL ACCESS	B	0		103	103
PRIVATE RD (S)	C		103		103
	Total	0	103	103	206

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A		12	1	17	30
PURBROOK WAY (E)	B	14				14
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	22				22
	Total	36	12	1	17	66

		A	B	C	D	Total
PRIVATE RD	A		28	3	40	71
PURBROOK WAY (E)	B	28				28
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	40				40
	Total	68	28	3	40	139

		A	B	C	D	Total
PRIVATE RD	A		41	4	58	103
PURBROOK WAY (E)	B	41				41
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	62				62
	Total	103	41	4	58	206

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A			17	17
A3(M) J4 OFF-SLIP	B	1			1
PURBROOK WAY (W)	C	21			21
	Total	22	0	17	39

		A	B	C	Total
PURBROOK WAY (E)	A			40	40
A3(M) J4 OFF-SLIP	B	3			3
PURBROOK WAY (W)	C	37			37
	Total	40	0	40	80

		A	B	C	Total
PURBROOK WAY (E)	A			58	58
A3(M) J4 OFF-SLIP	B	4			4
PURBROOK WAY (W)	C	58			58
	Total	62	0	58	120

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

		A	B	C	D	E	Total
HULBERT RD	A					0	0
PURBROOK WAY (E)	B					8	8
B2150	C					6	6
ASDA ACCESS	D					0	0
PURBROOK WAY (W)	E	0	7	5	0		12
	Total	0	7	5	0	14	26

		A	B	C	D	E	Total
HULBERT RD	A					0	0
PURBROOK WAY (E)	B					16	16
B2150	C					12	12
ASDA ACCESS	D					0	0
PURBROOK WAY (W)	E	0	16	12	0		28
	Total	0	16	12	0	28	56

		A	B	C	D	E	Total
HULBERT RD	A					0	0
PURBROOK WAY (E)	B					24	24
B2150	C					17	17
ASDA ACCESS	D					0	0
PURBROOK WAY (W)	E	0	24	17	0		41
	Total	0	24	17	0	41	82

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A		7			7
PURBROOK WAY	B	5		1	9	15
CROOKHORN LN	C		2			2
STAKES RD	D		10			10
	Total	5	19	1	9	34

		A	B	C	D	Total
STAKES HILL RD	A		12			12
PURBROOK WAY	B	13		3	20	36
CROOKHORN LN	C		3			3
STAKES RD	D		20			20
	Total	13	35	3	20	71

		A	B	C	D	Total
STAKES HILL RD	A		19			19
PURBROOK WAY	B	19		4	30	53
CROOKHORN LN	C		4			4
STAKES RD	D		30			30
	Total	19	53	4	30	106

Junction F - Purbrook Way / College Rd Signals

		A	B	C	Total
PURBROOK WAY (E)	A		2	15	17
COLLEGE ROAD	B	2			2
PURBROOK WAY (W)	C	19			19
	Total	21	2	15	38

		A	B	C	Total
PURBROOK WAY (E)	A		4	36	40
COLLEGE ROAD	B	2			2
PURBROOK WAY (W)	C	35			35
	Total	37	4	36	77

		A	B	C	Total
PURBROOK WAY (E)	A		5	53	58
COLLEGE ROAD	B	5			5
PURBROOK WAY (W)	C	53			53
	Total	58	5	53	116

PROJECT:
LIDL Purbrook Way, Havant

PRIMARY TRANSFERRED TRIPS

	ARR	DEP
WEEKDAY AM	14	12
WEEKDAY PM	28	28
SATURDAY	41	41

DESTINATION

		%	4 ARR	5 DEP			10 ARR	11 DEP			17 ARR	18 DEP		
A	Asda Havant Supercentre	100.0%	14	12	14	12	28	28	28	28	41	41	41	41
O	Other	0.0%	0	0	0	0	0	0	0	0	0	0	0	0
			14	12			28	28			41	41		
	Non Asda Havant		0	0			0	0			0	0		

		ARR	DEP	ARR	DEP	ARR	DEP
A	Asda Havant Supercentre	14	12	28	28	41	41

2	2.1%	1	1	1	0.73045788	0.626106754	1	2	2	1.46091576	1.46091576	1	2	2	2.139198077	2.139198077
3	2.1%	2	1	1	0.725588161	0.621932709	2	2	2	1.451176322	1.451176322	2	2	2	2.124936757	2.124936757
4	1.9%	3	1	1	0.675120162	0.578674424	3	2	2	1.350240324	1.350240324	3	2	2	1.977137617	1.977137617
5	1.9%	4	1	1	0.66449532	0.569567417	4	1	1	1.32899064	1.32899064	4	2	2	1.946022009	1.946022009
6	1.8%	5	0	0	0.616683531	0.528585884	5	1	1	1.233367063	1.233367063	5	2	2	1.806001771	1.806001771
7	1.9%	6	1	1	0.647672654	0.555147989	6	1	1	1.295345307	1.295345307	6	2	2	1.896755629	1.896755629
8	1.8%	7	0	0	0.62907918	0.539210726	7	1	1	1.258158361	1.258158361	7	2	2	1.842303314	1.842303314
9	1.7%	8	0	0	0.611813812	0.524411839	8	1	1	1.223627625	1.223627625	8	2	2	1.79174045	1.79174045
10	1.9%	9	1	1	0.655198583	0.561598786	9	1	1	1.310397167	1.310397167	9	2	2	1.918795851	1.918795851
11	1.8%	10	1	0	0.645459145	0.553250696	10	1	1	1.29091829	1.29091829	10	2	2	1.89027321	1.89027321
12	1.7%	11	0	0	0.609157602	0.522135087	11	1	1	1.218315204	1.218315204	11	2	2	1.783961548	1.783961548
13	1.8%	12	0	0	0.625094865	0.535795598	12	1	1	1.250189729	1.250189729	12	2	2	1.830634961	1.830634961
14	1.9%	13	1	1	0.669365039	0.573741462	13	1	1	1.338730078	1.338730078	13	2	2	1.960283329	1.960283329
15	1.7%	14	0	0	0.611371111	0.52403238	14	1	1	1.222742221	1.222742221	14	2	2	1.790443967	1.790443967
16	1.9%	15	1	1	0.664938022	0.569946876	15	1	1	1.329876044	1.329876044	15	2	2	1.947318492	1.947318492
17	2.0%	16	1	1	0.698140653	0.598406274	16	2	2	1.396281305	1.396281305	16	2	2	2.044554769	2.044554769
18	1.7%	17	0	0	0.602959777	0.516822666	17	1	1	1.205919555	1.205919555	17	1	1	1.765810777	1.765810777
19	2.2%	18	1	1	0.757462687	0.649253731	18	2	2	1.514925373	1.514925373	18	2	2	2.218283582	2.218283582
20	2.0%	19	1	1	0.695927144	0.596508981	19	2	2	1.391854288	1.391854288	19	2	2	2.03807235	2.03807235
21	2.3%	20	1	1	0.820769036	0.703516317	20	2	2	1.641538072	1.641538072	20	2	2	2.403680749	2.403680749
22	1.8%	21	1	0	0.643245636	0.551353402	21	1	1	1.286491272	1.286491272	21	2	2	1.883790792	1.883790792
	40%		14	12				28	28				41	41		

LIDL Purbrook Way, Havant

LIDL TRIP GENERATION - PRIMARY TRIPS - TRANSFERRED

WEEKDAY AM PEAK

	ARR	DEP
PRIMARY TRIPS (TRANSFERRED)	14	12

WEEKDAY PM PEAK

ARR	DEP
28	28

SATURDAY PEAK

ARR	DEP
41	41

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	0	0	0	0
	Total	0	0	0	0

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	6	6
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	0	7	0	0	7
	Total	0	7	0	6	13

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	1	13	14
C					0
D	0	14	0	0	14
Total	0	14	1	13	28

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	1	20	21
C					0
D	0	21	0	0	21
Total	0	21	1	20	42

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A	0		6	6
A3(M) J4 OFF-SLIP	B	0		0	0
PURBROOK WAY (W)	C	7		0	7
	Total	7	0	6	13

	A	B	C	Total
A	0		13	13
B	1		0	1
C	13		0	13
Total	14	0	13	27

	A	B	C	Total
A	0		20	20
B	1		0	1
C	20		0	20
Total	21	0	20	41

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	4	0	4
B2150	C	0	0	0	3	0	3
ASDA ACCESS	D	0	3	3	0	6	12
PURBROOK WAY (W)	E	0	0	0	7	0	7
	Total	0	3	3	14	6	26

	A	B	C	D	E	Total
A	0	0	0	2	0	2
B	0	0	0	8	0	8
C	0	0	0	4	0	4
D	2	8	4	0	14	28
E	0	0	0	14	0	14
Total	2	8	4	28	14	56

	A	B	C	D	E	Total
A	0	0	0	4	0	4
B	0	0	0	10	0	10
C	0	0	0	6	0	6
D	4	10	6	0	21	41
E	0	0	0	21	0	21
Total	4	10	6	41	21	82

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A	0	0	0	0	0
PURBROOK WAY	B	0	0	1	4	5
CROOKHORN LN	C	0	1	0	0	1
STAKES RD	D	0	5	0	0	5
	Total	0	6	1	4	11

	A	B	C	D	Total
A	0	2	0	0	2
B	2	0	1	8	11
C	0	1	0	0	1
D	0	8	0	0	8
Total	2	11	1	8	22

	A	B	C	D	Total
A	0	4	0	0	4
B	4	0	2	12	18
C	0	2	0	0	2
D	0	12	0	0	12
Total	4	18	2	12	36

Junction F - Purbrook Way / College Rd Signals

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	5	6
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	6	0	0	6
	Total	7	1	5	13

	A	B	C	Total
A	0	2	11	13
B	2	0	0	2
C	11	0	0	11
Total	13	2	11	26

	A	B	C	Total
A	0	2	18	20
B	2	0	0	2
C	18	0	0	18
Total	20	2	18	40

LIDL Purbrook Way, Havant

LIDL TRIP GENERATION - PRIMARY TRIPS - NET CHANGE

WEEKDAY AM PEAK

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	30	30
PRIVATE RD (S)	C	0	36	0	36
	Total	0	36	30	66

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A	0	12	1	17	30
PURBROOK WAY (E)	B	14	0	0	-6	8
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	22	-7	0	0	15
	Total	36	5	1	11	53

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A	0		11	11
A3(M) J4 OFF-SLIP	B	1		0	1
PURBROOK WAY (W)	C	14		0	14
	Total	15	0	11	26

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	-4	8	4
B2150	C	0	0	0	-3	6	3
ASDA ACCESS	D	0	-3	-3	0	-6	-12
PURBROOK WAY (W)	E	0	7	5	-7	0	5
	Total	0	4	2	-14	8	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A	0	7	0	0	7
PURBROOK WAY	B	5	0	0	5	10
CROOKHORN LN	C	0	1	0	0	1
STAKES RD	D	0	5	0	0	5
	Total	5	13	0	5	23

Junction F - Purbrook Way / College Rd Signals

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	10	11
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	13	0	0	13
	Total	14	1	10	25

WEEKDAY PM PEAK

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	71	71
PRIVATE RD (S)	C	0	68	0	68
	Total	0	68	71	139

		A	B	C	D	Total
PRIVATE RD	A	0	28	3	40	71
PURBROOK WAY (E)	B	28	0	-1	-13	14
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	40	-14	0	0	26
	Total	68	14	2	27	111

		A	B	C	Total
PURBROOK WAY (E)	A	0		27	27
A3(M) J4 OFF-SLIP	B	2		0	2
PURBROOK WAY (W)	C	24		0	24
	Total	26	0	27	53

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-2	0	-2
PURBROOK WAY (E)	B	0	0	0	-8	16	8
B2150	C	0	0	0	-4	12	8
ASDA ACCESS	D	-2	-8	-4	0	-14	-28
PURBROOK WAY (W)	E	0	16	12	-14	0	14
	Total	-2	8	8	-28	14	0

		A	B	C	D	Total
STAKES HILL RD	A	0	10	0	0	10
PURBROOK WAY	B	11	0	2	12	25
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	12	0	0	12
	Total	11	24	2	12	49

		A	B	C	Total
PURBROOK WAY (E)	A	0	2	25	27
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	24	0	0	24
	Total	24	2	25	51

SATURDAY PEAK

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	103	103
PRIVATE RD (S)	C	0	103	0	103
	Total	0	103	103	206

		A	B	C	D	Total
PRIVATE RD	A	0	41	4	58	103
PURBROOK WAY (E)	B	41	0	-1	-20	20
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	62	-21	0	0	41
	Total	103	20	3	38	164

		A	B	C	Total
PURBROOK WAY (E)	A	0		38	38
A3(M) J4 OFF-SLIP	B	3		0	3
PURBROOK WAY (W)	C	38		0	38
	Total	41	0	38	79

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-4	0	-4
PURBROOK WAY (E)	B	0	0	0	-10	24	14
B2150	C	0	0	0	-6	17	11
ASDA ACCESS	D	-4	-10	-6	0	-21	-41
PURBROOK WAY (W)	E	0	24	17	-21	0	20
	Total	-4	14	11	-41	20	0

		A	B	C	D	Total
STAKES HILL RD	A	0	15	0	0	15
PURBROOK WAY	B	15	0	2	18	35
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	18	0	0	18
	Total	15	35	2	18	70

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

APPENDIX J: Traffic Flow Calculations

LIDL Purbrook Way

2016 Paul Basham Associates TA for Persimmons Homes College Rd development - Nov-19 - Rev 5 - APPENDIX B - Surveys October 2016
2020 MB Surveys September 2020
2026 HCC Model traffic - 2011 traffic surveys growthed to 2026 + Dunsbury Hill Farm committed traffic - PBA TA - APPENDIX T

SURVEY FLOWS

WEEKDAY AM PEAK 08:00-09:00

Junction A - Lidl Site Access Access
2016
08:00 - 09:00

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A			83	83
LIDL ACCESS B				0
PRIVATE RD (S) C	99			99
Total	99	0	83	182

HGV

	A	B	C	Total
A			6	6
B				0
C	7			7
Total	7	0	6	13

Junction B - Purbrook Way / A3(M) J4 southbound roundabout
2016
08:00 - 09:00

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A	0	54	12	17	83
PURBROOK WAY (E) B	35	0	365	643	1043
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D	64	890	512	14	1480
Total	99	944	889	674	2606

HGV

	A	B	C	D	Total
A	0	6	0	1	7
B	1	0	5	19	25
C					0
D	5	35	20	1	61
Total	6	41	25	21	93

Junction C - Purbrook Way / A3(M) J4 northbound roundabout
2016
08:00 - 09:00

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	3		660	663
A3(M) J4 OFF-SLIP B	337		396	733
PURBROOK WAY (W) C	1177		5	1182
Total	1517	0	1061	2578

HGV

	A	B	C	Total
A	0		20	20
B	12		5	17
C	38		0	38
Total	50	0	25	75

Junction D - Purbrook Way / Hulbert Road Roundabout
2026
08:00 - 09:00

LINSIG - TRAFFIC FLOWS DESIRED

	A	B	C	D	E	Total
HULBERT RD A	0	393	347	110	191	1041
PURBROOK WAY (E) B	347	0	22	111	580	1060
B2150 C	172	29	0	77	262	540
ASDA ACCESS D	86	65	35	0	164	350
PURBROOK WAY (W) E	135	572	175	186	0	1068
Total	740	1059	579	484	1197	4059

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout
2016
08:00 - 09:00

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	581	135	153	877
PURBROOK WAY B	376	12	80	304	772
CROOKHORN LN C	142	129	1	56	328
STAKES RD D	76	468	35	2	581
Total	602	1190	251	515	2558

HGV

	A	B	C	D	Total
A	0	8	10	1	19
B	4	0	4	10	18
C	14	5	0	5	24
D	2	13	7	0	22
Total	20	26	21	16	83

Junction F - Purbrook Way / College Rd Signals
2016
08:00 - 09:00

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0	414	698	1112
COLLEGE ROAD B	135	0	81	216
PURBROOK WAY (W) C	1044	139	0	1183
Total	1179	553	779	2511

BUSES & HGV

	A	B	C	Total
A	0	15	7	22
B	16	0	5	21
C	22	0	0	22
Total	38	15	12	65

SURVEY FLOWS

WEEKDAY PM PEAK 16:30-17:30

Junction A - Lidl Site Access Access
2016
16:15 - 17:15

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A			142	142
LIDL ACCESS B				0
PRIVATE RD (S) C	123			123
Total	123	0	142	265

HGV

	A	B	C	Total
A			0	0
B				0
C	0			0
Total	0	0	0	0

Junction B - Purbrook Way / A3(M) J4 southbound roundabout
2016
16:15 - 17:15

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A	0	71	31	40	142
PURBROOK WAY (E) B	70	6	351	505	932
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D	53	1105	280	10	1448
Total	123	1182	662	555	2522

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	9	12
C					0
D	0	22	4	0	26
Total	0	22	7	9	38

Junction C - Purbrook Way / A3(M) J4 northbound roundabout
2016
16:30 - 17:30

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	2		547	549
A3(M) J4 OFF-SLIP B	584		541	1125
PURBROOK WAY (W) C	868		4	872
Total	1454	0	1092	2546

HGV

	A	B	C	Total
A	1		10	11
B	2		6	8
C	15		1	16
Total	18	0	17	35

Junction D - Purbrook Way / Hulbert Road Roundabout
2026
17:00 - 18:00

LINSIG - TRAFFIC FLOWS DESIRED

	A	B	C	D	E	Total
HULBERT RD A	0	444	174	167	135	920
PURBROOK WAY (E) B	406	0	31	170	476	1083
B2150 C	199	34	0	125	130	488
ASDA ACCESS D	176	234	82	0	299	791
PURBROOK WAY (W) E	103	590	139	302	0	1134
Total	884	1302	426	764	1040	4416

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout
2016
16:30 - 17:30

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	336	171	103	618
PURBROOK WAY B	427	7	112	463	1009
CROOKHORN LN C	187	78	0	63	328
STAKES RD D	155	315	37	1	508
Total	777	736	320	630	2463

HGV

	A	B	C	D	Total
A	2	4	11	2	19
B	5	1	7	2	15
C	8	2	0	7	17
D	4	6	6	0	16
Total	19	13	24	11	67

Junction F - Purbrook Way / College Rd Signals
2016
16:30 - 17:30

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0	240	847	1087
COLLEGE ROAD B	192	0	149	341
PURBROOK WAY (W) C	679	99	0	778
Total	871	339	996	2206

BUSES & HGV

	A	B	C	Total
A	0	10	9	19
B	10	0	2	12
C	5	2	0	7
Total	15	12	11	38

SURVEY FLOWS

SATURDAY PEAK 11:45-12:45

Junction A - Lidl Site Access Access
2020

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A			385	385
LIDL ACCESS B				0
PRIVATE RD (S) C	343			343
Total	343	0	385	728

HGV

	A	B	C	Total
A			1	1
B				0
C	1			1
Total	1	0	1	2

Junction B - Purbrook Way / A3(M) J4 southbound roundabout
2020

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A	0	185	104	96	385
PURBROOK WAY (E) B	166	1	393	375	935
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D	177	811	259	2	1249
Total	343	997	756	473	2569

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C					0
D	0	10	2	0	12
Total	1	11	3	7	22

Junction C - Purbrook Way / A3(M) J4 northbound roundabout
2020

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	1		472	473
A3(M) J4 OFF-SLIP B	525		292	817
PURBROOK WAY (W) C	723		4	727
Total	1249	0	768	2017

HGV

	A	B	C	Total
A	0		7	7
B	1		1	2
C	11		0	11
Total	12	0	8	20

Junction D - Purbrook Way / Hulbert Road Roundabout
2020

TOTAL VEHICLES

	A	B	C	D	E	Total
HULBERT RD A	0	268	81	144	106	599
PURBROOK WAY (E) B	236	1	27	226	400	890
B2150 C	98	33	0	139	102	372
ASDA ACCESS D	144	271	97	0	327	839
PURBROOK WAY (W) E	111	479	73	332	0	995
Total	589	1052	278	841	935	3695

HGV

	A	B	C	D	E	Total
A	0	1	0	0	0	1
B	2	0	0	6	2	10
C	0	0	0	0	0	0
D	0	5	0	0	6	11
E	1	3	0	8	0	12
Total	3	9	0	14	8	34

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout
2020

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	301	132	101	535
PURBROOK WAY B	292	1	87	300	680
CROOKHORN LN C	130	74	1	58	263
STAKES RD D	101	309	52	2	464
Total	524	685	272	461	1942

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

Junction F - Purbrook Way / College Rd Signals
NO DATA

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A				0
COLLEGE ROAD B				0
PURBROOK WAY (W) C				0
Total	0	0	0	0

BUSES & HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Project: LIDL Purbrook Way
Prepared By: R BROAD
Date: 24/08/2020

TEMPRO Programme Data

TEMPRO version: **7.2b**
TEMPRO Data Set: **72**
NTM dataset: **NTM AF15 Dataset**

TEMPRO User Selction Data

Results Type: **Trip ends by Time Period**
Trip Purpose Definition: **All Purposes**
Transport Mode: **Car Driver**
Trip End Type: **Origin/Destination**

TEMPRO Adjusted Local Growth Figure

Geographical Area: **Havant 018**

BASE YEAR	FUTURE YEAR	AREA TYPE	ROAD TYPE	SERVES AREA	WEEKDAY AM	WEEKDAY PM	SATURDAY
2020	**2025**	Urban	Principal	Region	**1.0631**	**1.0601**	**1.0648**
2020	**2026**	Urban	Principal	Region	**-**	**-**	**1.0726**
2016	**2020**	Urban	Principal	Region	**1.0559**	**1.0494**	**-**
2016	**2025**	Urban	Principal	Region	**1.1255**	**1.1125**	**-**

LIDL Purbrook Way

COMMITTED DEVELOPMENT TRAFFIC FLOWS APP/19/01101

WEEKDAY AM PEAK

Junction A - Lidl Site Access Access

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A			0	0
LIDL ACCESS B				0
PRIVATE RD (S) C	0			0
Total	0	0	0	0

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A	0	0	0	0	0
PURBROOK WAY (E) B	0	0	0	20	20
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D	0	48	141	0	189
Total	0	48	141	20	209

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0		20	20
A3(M) J4 OFF-SLIP B	0		61	61
PURBROOK WAY (W) C	190		0	190
Total	190	0	81	271

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

	A	B	C	D	E	Total
HULBERT RD A	0	0	0	0	10	10
PURBROOK WAY (E) B	0	0	0	0	11	11
B2150 C	0	0	0	0	0	0
ASDA ACCESS D	0	0	0	0	0	0
PURBROOK WAY (W) E	22	26	0	0	0	48
Total	22	26	0	0	21	69

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	18	0	0	18
PURBROOK WAY B	42	0	0	22	64
CROOKHORN LN C	0	0	0	0	0
STAKES RD D	0	9	0	0	9
Total	42	27	0	22	91

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0	80	0	80
COLLEGE ROAD B	189	0	64	253
PURBROOK WAY (W) C	0	28	0	28
Total	189	108	64	361

BUSES & HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

WEEKDAY PM PEAK

Junction A - Lidl Site Access Access

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A			0	0
LIDL ACCESS B				0
PRIVATE RD (S) C	0			0
Total	0	0	0	0

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A	0	0	0	0	0
PURBROOK WAY (E) B	0	0	0	47	47
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D	0	30	86	0	116
Total	0	30	86	47	163

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0		48	48
A3(M) J4 OFF-SLIP B	0		140	140
PURBROOK WAY (W) C	116		0	116
Total	116	0	188	304

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

	A	B	C	D	E	Total
HULBERT RD A	0	0	0	0	22	22
PURBROOK WAY (E) B	0	0	0	0	25	25
B2150 C	0	0	0	0	0	0
ASDA ACCESS D	0	0	0	0	0	0
PURBROOK WAY (W) E	14	16	0	0	0	30
Total	14	16	0	0	47	77

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	42	0	0	42
PURBROOK WAY B	25	0	0	13	38
CROOKHORN LN C	0	0	0	0	0
STAKES RD D	0	22	0	0	22
Total	25	64	0	13	102

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A	0	188	0	188
COLLEGE ROAD B	115	0	40	155
PURBROOK WAY (W) C	0	63	0	63
Total	115	251	40	406

BUSES & HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

SATURDAY PEAK -

Junction A - Lidl Site Access Access

TOTAL VEHICLES

	A	B	C	Total
PRIVATE RD (N) A				0
LIDL ACCESS B				0
PRIVATE RD (S) C				0
Total	0	0	0	0

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD A					0
PURBROOK WAY (E) B					0
A3(M) J4 ON-SLIP C					0
PURBROOK WAY (W) D					0
Total	0	0	0	0	0

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A				0
A3(M) J4 OFF-SLIP B				0
PURBROOK WAY (W) C				0
Total	0	0	0	0

HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

	A	B	C	D	E	Total
HULBERT RD A						0
PURBROOK WAY (E) B						0
B2150 C						0
ASDA ACCESS D						0
PURBROOK WAY (W) E						0
Total	0	0	0	0	0	0

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A					0
PURBROOK WAY B					0
CROOKHORN LN C					0
STAKES RD D					0
Total	0	0	0	0	0

HGV

	A	B	C	D	Total
A					0
B					0
C					0
D					0
Total	0	0	0	0	0

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

	A	B	C	Total
PURBROOK WAY (E) A				0
COLLEGE ROAD B				0
PURBROOK WAY (W) C				0
Total	0	0	0	0

BUSES & HGV

	A	B	C	Total
A				0
B				0
C				0
Total	0	0	0	0

LIDL Purbrook Way

PROPOSED LIDL FOODSTORE NET CHANGE IN TRAFFIC FLOWS

Source: 210315 - LIDL Purbrook Way - Addendum 2 - Trip Assignment - ASDA 40%

PRIMARY TRIPS

WEEKDAY AM PEAK 08:00-09:00 **WEEKDAY PM PEAK** 16:30-17:30 **SATURDAY PEAK** 11:45-12:45

Junction A - Lidl Site Access Access

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	30	30
PRIVATE RD (S)	C	0	36	0	36
	Total	0	36	30	66

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	71	71
PRIVATE RD (S)	C	0	68	0	68
	Total	0	68	71	139

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	103	103
PRIVATE RD (S)	C	0	103	0	103
	Total	0	103	103	206

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	12	1	17	30
PURBROOK WAY (E)	B	14	0	0	-6	8
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	22	-7	0	0	15
	Total	36	5	1	11	53

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	28	3	40	71
PURBROOK WAY (E)	B	28	0	-1	-13	14
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	40	-14	0	0	26
	Total	68	14	2	27	111

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	41	4	58	103
PURBROOK WAY (E)	B	41	0	-1	-20	20
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	62	-21	0	0	41
	Total	103	20	3	38	164

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0		11	11
A3(M) J4 OFF-SLIP	B	1		0	1
PURBROOK WAY (W)	C	14		0	14
	Total	15	0	11	26

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0		27	27
A3(M) J4 OFF-SLIP	B	2		0	2
PURBROOK WAY (W)	C	24		0	24
	Total	26	0	27	53

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0		38	38
A3(M) J4 OFF-SLIP	B	3		0	3
PURBROOK WAY (W)	C	38		0	38
	Total	41	0	38	79

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	-4	8	4
B2150	C	0	0	0	-3	6	3
ASDA ACCESS	D	0	-3	-3	0	-6	-12
PURBROOK WAY (W)	E	0	7	5	-7	0	5
	Total	0	4	2	-14	8	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-2	0	-2
PURBROOK WAY (E)	B	0	0	0	-8	16	8
B2150	C	0	0	0	-4	12	8
ASDA ACCESS	D	-2	-8	-4	0	-14	-28
PURBROOK WAY (W)	E	0	16	12	-14	0	14
	Total	-2	8	8	-28	14	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-4	0	-4
PURBROOK WAY (E)	B	0	0	0	-10	24	14
B2150	C	0	0	0	-6	17	11
ASDA ACCESS	D	-4	-10	-6	0	-21	-41
PURBROOK WAY (W)	E	0	24	17	-21	0	20
	Total	-4	14	11	-41	20	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	7	0	0	7
PURBROOK WAY	B	5	0	0	5	10
CROOKHORN LN	C	0	1	0	0	1
STAKES RD	D	0	5	0	0	5
	Total	5	13	0	5	23

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	10	0	0	10
PURBROOK WAY	B	11	0	2	12	25
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	12	0	0	12
	Total	11	24	2	12	49

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	15	0	0	15
PURBROOK WAY	B	15	0	2	18	35
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	18	0	0	18
	Total	15	35	2	18	70

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	10	11
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	13	0	0	13
	Total	14	1	10	25

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	2	25	27
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	24	0	0	24
	Total	24	2	25	51

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

SECONDARY

WEEKDAY AM PEAK 08:00-09:00 **WEEKDAY PM PEAK** 16:30-17:30 **SATURDAY PEAK** 11:45-12:45

	IN	OUT
SECONDARY TRIPS	9	8

	IN	OUT
SECONDARY TRIPS	17	17

	IN	OUT
SECONDARY TRIPS	12	11

Junction A - Lidl Site Access Access

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A				0
LIDL ACCESS	B			8	8
PRIVATE RD (S)	C		9		9
	Total	0	9	8	17

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A				0
LIDL ACCESS	B			17	17
PRIVATE RD (S)	C		17		17
	Total	0	17	17	34

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A				0
LIDL ACCESS	B			11	11
PRIVATE RD (S)	C		12		12
	Total	0	12	11	23

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A		3	3	2	8
PURBROOK WAY (E)	B	4		-1	-3	0
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	5	-3	-2		0
	Total	9	0	0	-1	8

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A		8	5	4	17
PURBROOK WAY (E)	B	6		-2	-4	0
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	11	-9	-2		0
	Total	17	-1	1	0	17

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A		5	4	2	11
PURBROOK WAY (E)	B	5		-3	-2	0
A3(M) J4 ON-SLIP	C					0
PURBROOK WAY (W)	D	7	-5	-2		0
	Total	12	0	-1	0	11

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
A3(M) J4 OFF-SLIP	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
A3(M) J4 OFF-SLIP	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
A3(M) J4 OFF-SLIP	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A						0
PURBROOK WAY (E)	B						0
B2150	C						0
ASDA ACCESS	D						0
PURBROOK WAY (W)	E						0
	Total	0	0	0	0	0	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A						0
PURBROOK WAY (E)	B						0
B2150	C						0
ASDA ACCESS	D						0
PURBROOK WAY (W)	E						0
	Total	0	0	0	0	0	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A						0
PURBROOK WAY (E)	B						0
B2150	C						0
ASDA ACCESS	D						0
PURBROOK WAY (W)	E						0
	Total	0	0	0	0	0	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A					0
PURBROOK WAY	B					0
CROOKHORN LN	C					0
STAKES RD	D					0
	Total	0	0	0	0	0

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A					0
PURBROOK WAY	B					0
CROOKHORN LN	C					0
STAKES RD	D					0
	Total	0	0	0	0	0

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A					0
PURBROOK WAY	B					0
CROOKHORN LN	C					0
STAKES RD	D					0
	Total	0	0	0	0	0

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
COLLEGE ROAD	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
COLLEGE ROAD	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A				0
COLLEGE ROAD	B				0
PURBROOK WAY (W)	C				0
	Total	0	0	0	0

COMBINED

WEEKDAY AM PEAK 08:00-09:00 **WEEKDAY PM PEAK** 16:30-17:30 **SATURDAY PEAK** 11:45-12:45

Junction A - Lidl Site Access Access

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	38	38
PRIVATE RD (S)	C	0	45	0	45
	Total	0	45	38	83

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	88	88
PRIVATE RD (S)	C	0	85	0	85
	Total	0	85	88	173

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	114	114
PRIVATE RD (S)	C	0	115	0	115
	Total	0	115	114	229

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	15	4	19	38
PURBROOK WAY (E)	B	18	0	-1	-9	8
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	27	-10	-2	0	15
	Total	45	5	1	10	61

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	36	8	44	88
PURBROOK WAY (E)	B	34	0	-3	-17	14
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	51	-23	-2	0	26
	Total	85	13	3	27	128

TOTAL VEHICLES

		A	B	C	D	Total
PRIVATE RD	A	0	46	8	60	114
PURBROOK WAY (E)	B	46	0	-4	-22	20
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	69	-26	-2	0	41
	Total	115	20	2	38	175

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	11	11
A3(M) J4 OFF-SLIP	B	1	0	0	1
PURBROOK WAY (W)	C	14	0	0	14
	Total	15	0	11	26

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	27	27
A3(M) J4 OFF-SLIP	B	2	0	0	2
PURBROOK WAY (W)	C	24	0	0	24
	Total	26	0	27	53

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	38	38
A3(M) J4 OFF-SLIP	B	3	0	0	3
PURBROOK WAY (W)	C	38	0	0	38
	Total	41	0	38	79

Junction D - Purbrook Way / Hulbert Road / B2150 Signals

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	-4	8	4
B2150	C	0	0	0	-3	6	3
ASDA ACCESS	D	0	-3	-3	0	-6	-12
PURBROOK WAY (W)	E	0	7	5	-7	0	5
	Total	0	4	2	-14	8	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-2	0	-2
PURBROOK WAY (E)	B	0	0	0	-8	16	8
B2150	C	0	0	0	-4	12	8
ASDA ACCESS	D	-2	-8	-4	0	-14	-28
PURBROOK WAY (W)	E	0	16	12	-14	0	14
	Total	-2	8	8	-28	14	0

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-4	0	-4
PURBROOK WAY (E)	B	0	0	0	-10	24	14
B2150	C	0	0	0	-6	17	11
ASDA ACCESS	D	-4	-10	-6	0	-21	-41
PURBROOK WAY (W)	E	0	24	17	-21	0	20
	Total	-4	14	11	-41	20	0

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	7	0	0	7
PURBROOK WAY	B	5	0	0	5	10
CROOKHORN LN	C	0	1	0	0	1
STAKES RD	D	0	5	0	0	5
	Total	5	13	0	5	23

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	10	0	0	10
PURBROOK WAY	B	11	0	2	12	25
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	12	0	0	12
	Total	11	24	2	12	49

TOTAL VEHICLES

		A	B	C	D	Total
STAKES HILL RD	A	0	15	0	0	15
PURBROOK WAY	B	15	0	2	18	35
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	18	0	0	18
	Total	15	35	2	18	70

Junction F - Purbrook Way / College Rd Signals

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	10	11
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	13	0	0	13
	Total	14	1	10	25

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	2	25	27
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	24	0	0	24
	Total	24	2	25	51

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

LIDL Purbrook Way

Junction A - Lidl Site Access Access

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	83	83
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	99	0	0	99
	Total	99	0	83	182

HGV

	A	B	C	Total
A	0	0	6	6
B	0	0	0	0
C	7	0	0	7
Total	7	0	6	13

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	7%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	7%	#DIV/0!	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0559

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	88	88
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	105	0	0	105
	Total	105	0	88	193

HGV

	A	B	C	Total
A	0	0	6	6
B	0	0	0	0
C	7	0	0	7
Total	7	0	6	13

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	7%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	7%	#DIV/0!	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.1255

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	93	93
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	111	0	0	111
	Total	111	0	93	204

HGV

	A	B	C	Total
A	0	0	7	7
B	0	0	0	0
C	8	0	0	8
Total	8	0	7	15

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	8%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	7%	#DIV/0!	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	93	93
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	111	0	0	111
	Total	111	0	93	204

HGV

	A	B	C	Total
A	0	0	7	7
B	0	0	0	0
C	8	0	0	8
Total	8	0	7	15

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	8%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	7%	#DIV/0!	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	38	38
PRIVATE RD (S)	C	0	45	0	45
	Total	0	45	38	83

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	88	88
LIDL ACCESS	B	0	0	38	38
PRIVATE RD (S)	C	105	45	0	150
	Total	105	45	126	276

HGV

	A	B	C	Total
A	0	0	6	6
B	0	0	0	0
C	7	0	0	7
Total	7	0	6	13

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	7%
B	#DIV/0!	#DIV/0!	0%
C	7%	0%	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	93	93
LIDL ACCESS	B	0	0	38	38
PRIVATE RD (S)	C	111	45	0	156
	Total	111	45	131	287

HGV

	A	B	C	Total
A	0	0	7	7
B	0	0	0	0
C	8	0	0	8
Total	8	0	7	15

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	8%
B	#DIV/0!	#DIV/0!	0%
C	7%	0%	#DIV/0!

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	142	142
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	123	0	0	123
	Total	123	0	142	265

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0494

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	149	149
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	129	0	0	129
	Total	129	0	149	278

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.1125

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	158	158
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	137	0	0	137
	Total	137	0	158	295

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	158	158
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	137	0	0	137
	Total	137	0	158	295

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	88	88
PRIVATE RD (S)	C	0	85	0	85
	Total	0	85	88	173

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	149	149
LIDL ACCESS	B	0	0	88	88
PRIVATE RD (S)	C	129	85	0	214
	Total	129	85	237	451

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	0%	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	158	158
LIDL ACCESS	B	0	0	88	88
PRIVATE RD (S)	C	137	85	0	222
	Total	137	85	246	468

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	0%	#DIV/0!

SATURDAY PEAK
11:45-12:45

Survey Data — Uplifted 2020 Survey

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	385	385
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	343	0	0	343
	Total	343	0	385	728

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0000

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	385	385
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	343	0	0	343
	Total	343	0	385	728

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.0648

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	410	410
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	365	0	0	365
	Total	365	0	410	775

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	410	410
LIDL ACCESS	B	0	0	0	0
PRIVATE RD (S)	C	365	0	0	365
	Total	365	0	410	775

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	114	114
PRIVATE RD (S)	C	0	115	0	115
	Total	0	115	114	229

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	385	385
LIDL ACCESS	B	0	0	114	114
PRIVATE RD (S)	C	343	115	0	458
	Total	343	115	499	957

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	0%	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PRIVATE RD (N)	A	0	0	410	410
LIDL ACCESS	B	0	0	114	114
PRIVATE RD (S)	C	365	115	0	480
	Total	365	115	524	1004

HGV

	A	B	C	Total
A	0	0	1	1
B	0	0	0	0
C	1	0	0	1
Total	1	0	1	2

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	0%	#DIV/0!

LIDL Purbrook Way

Junction B - Purbrook Way / A3(M) J4 southbound roundabout (east)

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	54	12	17	83
PURBROOK WAY (E)	B	35	0	365	643	1043
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	64	890	512	14	1480
	Total	99	944	889	674	2606

HGV

	A	B	C	D	Total
A	0	6	0	1	7
B	1	0	5	19	25
C	0	0	0	0	0
D	5	35	20	1	61
Total	6	41	25	21	93

HGV (%)

	A	B	C	D
A	#DIV/0!	11%	0%	6%
B	3%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	8%	4%	4%	7%

2020 Baseline

GROWTH FACTOR: 1.0559

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	57	13	18	88
PURBROOK WAY (E)	B	37	0	385	679	1101
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	68	940	541	15	1564
	Total	105	997	939	712	2753

HGV

	A	B	C	D	Total
A	0	6	0	1	7
B	1	0	5	20	26
C	0	0	0	0	0
D	5	37	21	1	64
Total	6	43	26	22	97

HGV (%)

	A	B	C	D
A	#DIV/0!	11%	0%	6%
B	3%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	7%	4%	4%	7%

2025 Growthed

GROWTH FACTOR: 1.1255

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	61	14	19	94
PURBROOK WAY (E)	B	39	0	411	724	1174
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	72	1002	576	16	1666
	Total	111	1063	1001	759	2934

HGV

	A	B	C	D	Total
A	0	7	0	1	8
B	1	0	6	21	28
C	0	0	0	0	0
D	6	39	23	1	69
Total	7	46	29	23	105

HGV (%)

	A	B	C	D
A	#DIV/0!	11%	0%	5%
B	3%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	8%	4%	4%	6%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	20	20
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	0	48	141	0	189
	Total	0	48	141	20	209

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	0%	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	61	14	19	94
PURBROOK WAY (E)	B	0	0	0	0	0
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	72	1050	717	16	1855
	Total	111	1111	1142	779	3143

HGV

	A	B	C	D	Total
A	0	7	0	1	8
B	1	0	6	21	28
C	0	0	0	0	0
D	6	39	23	1	69
Total	7	46	29	23	105

HGV (%)

	A	B	C	D
A	#DIV/0!	11%	0%	5%
B	3%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	8%	4%	3%	6%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	15	4	19	38
PURBROOK WAY (E)	B	18	0	-1	-9	8
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	27	-10	-2	0	15
	Total	45	5	1	10	61

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	0%	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	72	17	37	126
PURBROOK WAY (E)	B	55	0	384	670	1109
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	95	930	539	15	1579
	Total	150	1002	940	722	2814

HGV

	A	B	C	D	Total
A	0	6	0	1	7
B	1	0	5	20	26
C	0	0	0	0	0
D	5	37	21	1	64
Total	6	43	26	22	97

HGV (%)

	A	B	C	D
A	#DIV/0!	8%	0%	3%
B	2%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	5%	4%	4%	7%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	76	18	38	132
PURBROOK WAY (E)	B	57	0	410	735	1202
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	99	1040	715	16	1870
	Total	156	1116	1143	789	3204

HGV

	A	B	C	D	Total
A	0	7	0	1	8
B	1	0	6	21	28
C	0	0	0	0	0
D	6	39	23	1	69
Total	7	46	29	23	105

HGV (%)

	A	B	C	D
A	#DIV/0!	9%	0%	3%
B	2%	#DIV/0!	1%	3%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	6%	4%	3%	6%

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	71	31	40	142
PURBROOK WAY (E)	B	70	6	351	505	932
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	53	1105	280	10	1448
	Total	123	1182	662	555	2522

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	9	12
C	0	0	0	0	0
D	0	22	4	0	26
Total	0	22	7	9	38

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

2020 Baseline

GROWTH FACTOR: 1.0494

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	75	33	42	150
PURBROOK WAY (E)	B	73	6	368	530	977
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	56	1160	294	10	1520
	Total	129	1241	695	582	2647

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	9	12
C	0	0	0	0	0
D	0	23	4	0	27
Total	0	23	7	9	39

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

2025 Growthed

GROWTH FACTOR: 1.1125

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	79	34	45	158
PURBROOK WAY (E)	B	78	7	390	562	1037
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	59	1229	312	11	1611
	Total	137	1315	736	618	2806

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	10	13
C	0	0	0	0	0
D	0	24	4	0	28
Total	0	24	7	10	41

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	47	47
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	0	30	86	0	116
	Total	0	30	86	47	163

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	79	34	45	158
PURBROOK WAY (E)	B	112	7	387	592	1098
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	110	1236	396	11	1753
	Total	137	1345	822	665	2969

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	10	13
C	0	0	0	0	0
D	0	24	4	0	28
Total	0	24	7	10	41

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	36	8	44	88
PURBROOK WAY (E)	B	34	0	-3	-17	14
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	51	-23	-2	0	26
	Total	85	13	3	27	128

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	0%	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	111	41	86	238
PURBROOK WAY (E)	B	107	6	365	513	991
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	107	1137	292	10	1546
	Total	214	1254	698	609	2775

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	9	12
C	0	0	0	0	0
D	0	23	4	0	27
Total	0	23	7	9	39

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	115	42	89	246
PURBROOK WAY (E)	B	112	7	387	592	1098
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	110	1236	396	11	1753
	Total	222	1358	825	692	3097

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	3	10	13
C	0	0	0	0	0
D	0	24	4	0	28
Total	0	24	7	10	41

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	1%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	2%	1%	0%

SATURDAY PEAK
11:45-12:45

Survey Data — Uplifted 2020 Survey

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	185	104	96	385
PURBROOK WAY (E)	B	166	1	393	375	935
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	177	811	259	2	1249
	Total	343	997	756	473	2569

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	10	2	0	12
Total	1	11	3	7	22

HGV (%)

	A	B	C	D
A	#DIV/0!	1%	0%	0%
B	1%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

2020 Baseline

GROWTH FACTOR: 1.0000

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	185	104	96	385
PURBROOK WAY (E)	B	166	1	393	375	935
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	177	811	259	2	1249
	Total	343	997	756	473	2569

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	10	2	0	12
Total	1	11	3	7	22

HGV (%)

	A	B	C	D
A	#DIV/0!	1%	0%	0%
B	1%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

2025 Growthed

GROWTH FACTOR: 1.0648

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	197	111	102	410
PURBROOK WAY (E)	B	177	1	418	399	995
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	188	864	276	2	1330
	Total	365	1062	805	503	2735

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	11	2	0	13
Total	1	12	3	7	23

HGV (%)

	A	B	C	D
A	#DIV/0!	1%	0%	0%
B	1%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	0	0
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	0	0	0	0	0
	Total	0	0	0	0	0

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	197	111	102	410
PURBROOK WAY (E)	B	177	1	418	399	995
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	188	864	276	2	1330
	Total	365	1062	805	503	2735

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	11	2	0	13
Total	1	12	3	7	23

HGV (%)

	A	B	C	D
A	#DIV/0!	1%	0%	0%
B	1%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	0	0
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	0	0	0	0	0
	Total	0	0	0	0	0

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	0%	0%	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	231	112	156	499
PURBROOK WAY (E)	B	212	1	389	353	955
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	246	785	257	2	1290
	Total	458	1017	758	511	2744

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	10	2	0	12
Total	1	11	3	7	22

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
PRIVATE RD	A	0	243	119	162	524
PURBROOK WAY (E)	B	223	1	414	377	1015
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	257	838	274	2	1371
	Total	480	1082	807	541	2910

HGV

	A	B	C	D	Total
A	0	1	0	0	1
B	1	0	1	7	9
C	0	0	0	0	0
D	0	11	2	0	13
Total	1	12	3	7	23

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	0%	0%
B	0%	0%	0%	2%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	0%	1%	1%	0%

LIDL Purbrook Way

Junction C - Purbrook Way / A3(M) J4 northbound roundabout (west)

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	660	663
A3(M) J4 OFF-SLIP	B	337	0	396	733
PURBROOK WAY (W)	C	1177	0	5	1182
	Total	1517	0	1061	2578

HGV

	A	B	C	Total
A	0	0	20	20
B	12	0	5	17
C	38	0	0	38
Total	50	0	25	75

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

2020 Baseline — GROWTH FACTOR 1.0559

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	697	700
A3(M) J4 OFF-SLIP	B	356	0	418	774
PURBROOK WAY (W)	C	1243	0	5	1248
	Total	1602	0	1120	2722

HGV

	A	B	C	Total
A	0	0	21	21
B	13	0	5	18
C	40	0	0	40
Total	53	0	26	79

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

2025 Growthed — GROWTH FACTOR 1.1255

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	743	746
A3(M) J4 OFF-SLIP	B	379	0	446	825
PURBROOK WAY (W)	C	1325	0	6	1331
	Total	1707	0	1195	2902

HGV

	A	B	C	Total
A	0	0	23	23
B	14	0	6	20
C	43	0	0	43
Total	57	0	29	86

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	20	20
A3(M) J4 OFF-SLIP	B	0	0	61	61
PURBROOK WAY (W)	C	190	0	0	190
	Total	190	0	81	271

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	763	766
A3(M) J4 OFF-SLIP	B	379	0	507	886
PURBROOK WAY (W)	C	1515	0	6	1521
	Total	1897	0	1276	3173

HGV

	A	B	C	Total
A	0	0	23	23
B	14	0	6	20
C	43	0	0	43
Total	57	0	29	86

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	11	11
A3(M) J4 OFF-SLIP	B	1	0	0	1
PURBROOK WAY (W)	C	14	0	0	14
	Total	15	0	11	26

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	708	711
A3(M) J4 OFF-SLIP	B	357	0	418	775
PURBROOK WAY (W)	C	1257	0	5	1262
	Total	1617	0	1131	2748

HGV

	A	B	C	Total
A	0	0	21	21
B	13	0	5	18
C	40	0	0	40
Total	53	0	26	79

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	3	0	774	777
A3(M) J4 OFF-SLIP	B	380	0	507	887
PURBROOK WAY (W)	C	1529	0	6	1535
	Total	1912	0	1287	3199

HGV

	A	B	C	Total
A	0	0	23	23
B	14	0	6	20
C	43	0	0	43
Total	57	0	29	86

HGV (%)

	A	B	C
A	0%	#DIV/0!	3%
B	4%	#DIV/0!	1%
C	3%	#DIV/0!	0%

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	547	549
A3(M) J4 OFF-SLIP	B	584	0	541	1125
PURBROOK WAY (W)	C	868	0	4	872
	Total	1454	0	1092	2546

HGV

	A	B	C	Total
A	1	0	10	11
B	2	0	6	8
C	15	0	1	16
Total	18	0	17	35

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

2020 Baseline — GROWTH FACTOR 1.0494

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	574	576
A3(M) J4 OFF-SLIP	B	613	0	568	1181
PURBROOK WAY (W)	C	911	0	4	915
	Total	1526	0	1146	2672

HGV

	A	B	C	Total
A	1	0	10	11
B	2	0	6	8
C	16	0	1	17
Total	19	0	17	36

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

2025 Growthed — GROWTH FACTOR 1.1125

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	609	611
A3(M) J4 OFF-SLIP	B	650	0	602	1252
PURBROOK WAY (W)	C	966	0	4	970
	Total	1618	0	1215	2833

HGV

	A	B	C	Total
A	1	0	11	12
B	2	0	7	9
C	17	0	1	18
Total	20	0	19	39

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	48	48
A3(M) J4 OFF-SLIP	B	0	0	140	140
PURBROOK WAY (W)	C	116	0	0	116
	Total	116	0	188	304

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	0%
C	0%	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	657	659
A3(M) J4 OFF-SLIP	B	650	0	742	1392
PURBROOK WAY (W)	C	1082	0	4	1086
	Total	1734	0	1403	3137

HGV

	A	B	C	Total
A	1	0	11	12
B	2	0	7	9
C	17	0	1	18
Total	20	0	19	39

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	27	27
A3(M) J4 OFF-SLIP	B	2	0	0	2
PURBROOK WAY (W)	C	24	0	0	24
	Total	26	0	27	53

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	601	603
A3(M) J4 OFF-SLIP	B	615	0	568	1183
PURBROOK WAY (W)	C	935	0	4	939
	Total	1552	0	1173	2725

HGV

	A	B	C	Total
A	1	0	10	11
B	2	0	6	8
C	16	0	1	17
Total	19	0	17	36

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	2	0	684	686
A3(M) J4 OFF-SLIP	B	652	0	742	1394
PURBROOK WAY (W)	C	1106	0	4	1110
	Total	1760	0	1430	3190

HGV

	A	B	C	Total
A	1	0	11	12
B	2	0	7	9
C	17	0	1	18
Total	20	0	19	39

HGV (%)

	A	B	C
A	50%	#DIV/0!	2%
B	0%	#DIV/0!	1%
C	2%	#DIV/0!	25%

SATURDAY PEAK
11:45-12:45

Survey Data — Uplifted 2020 Survey

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	472	473
A3(M) J4 OFF-SLIP	B	525	0	292	817
PURBROOK WAY (W)	C	723	0	4	727
	Total	1249	0	768	2017

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	11	0	0	11
Total	12	0	8	20

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	2%	#DIV/0!	0%

2020 Baseline — GROWTH FACTOR 1.0000

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	472	473
A3(M) J4 OFF-SLIP	B	525	0	292	817
PURBROOK WAY (W)	C	723	0	4	727
	Total	1249	0	768	2017

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	11	0	0	11
Total	12	0	8	20

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	2%	#DIV/0!	0%

2025 Growthed — GROWTH FACTOR 1.0648

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	503	504
A3(M) J4 OFF-SLIP	B	559	0	311	870
PURBROOK WAY (W)	C	770	0	4	774
	Total	1330	0	818	2148

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	12	0	0	12
Total	13	0	8	21

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	2%	#DIV/0!	0%

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
A3(M) J4 OFF-SLIP	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	503	504
A3(M) J4 OFF-SLIP	B	559	0	311	870
PURBROOK WAY (W)	C	770	0	4	774
	Total	1330	0	818	2148

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	12	0	0	12
Total	13	0	8	21

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	2%	#DIV/0!	0%

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	38	38
A3(M) J4 OFF-SLIP	B	3	0	0	3
PURBROOK WAY (W)	C	38	0	0	38
	Total	41	0	38	79

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	510	511
A3(M) J4 OFF-SLIP	B	528	0	292	820
PURBROOK WAY (W)	C	761	0	4	765
	Total	1290	0	806	2096

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	11	0	0	11
Total	12	0	8	20

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	1%	#DIV/0!	0%

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	1	0	541	542
A3(M) J4 OFF-SLIP	B	562	0	311	873
PURBROOK WAY (W)	C	808	0	4	812
	Total	1371	0	856	2227

HGV

	A	B	C	Total
A	0	0	7	7
B	1	0	1	2
C	12	0	0	12
Total	13	0	8	21

HGV (%)

	A	B	C
A	0%	#DIV/0!	1%
B	0%	#DIV/0!	0%
C	1%	#DIV/0!	0%

LIDL Purbrook Way

Junction D - Purbrook Way / Hulbert Road Roundabout

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2026 Traffic Data - from HCC Model

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	393	347	110	191	1041
PURBROOK WAY (E)	B	347	0	22	111	580	1060
B2150	C	172	29	0	77	262	540
ASDA ACCESS	D	86	65	35	0	164	350
PURBROOK WAY (W)	E	135	572	175	186	0	1068
	Total	740	1059	579	484	1197	4059

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

2026 Growthed — GROWTH FACTOR: 1.0000

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	393	347	110	191	1041
PURBROOK WAY (E)	B	347	0	22	111	580	1060
B2150	C	172	29	0	77	262	540
ASDA ACCESS	D	86	65	35	0	164	350
PURBROOK WAY (W)	E	135	572	175	186	0	1068
	Total	740	1059	579	484	1197	4059

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	10	10
PURBROOK WAY (E)	B	0	0	0	0	11	11
B2150	C	0	0	0	0	0	0
ASDA ACCESS	D	0	0	0	0	0	0
PURBROOK WAY (W)	E	22	26	0	0	0	48
	Total	22	26	0	0	21	69

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
E	0%	0%	#DIV/0!	#DIV/0!	#DIV/0!

2026 Baseline

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	393	347	110	191	1041
PURBROOK WAY (E)	B	347	0	22	111	591	1071
B2150	C	172	29	0	77	262	540
ASDA ACCESS	D	86	65	35	0	164	350
PURBROOK WAY (W)	E	157	598	175	186	0	1116
	Total	762	1085	579	484	1218	4128

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	-4	8	4
B2150	C	0	0	0	-3	6	3
ASDA ACCESS	D	0	-3	-3	0	-6	-12
PURBROOK WAY (W)	E	0	7	5	-7	0	5
	Total	0	4	2	-14	8	0

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
D	#DIV/0!	0%	0%	#DIV/0!	0%
E	#DIV/0!	0%	0%	0%	#DIV/0!

2026 + Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	393	347	110	201	1051
PURBROOK WAY (E)	B	347	0	22	107	599	1075
B2150	C	172	29	0	74	268	543
ASDA ACCESS	D	86	62	32	0	158	338
PURBROOK WAY (W)	E	157	605	180	179	0	1121
	Total	762	1089	581	470	1226	4128

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2026 Traffic Data - from HCC Model

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	444	174	167	135	920
PURBROOK WAY (E)	B	406	0	31	170	476	1083
B2150	C	199	34	0	125	130	488
ASDA ACCESS	D	176	234	82	0	299	791
PURBROOK WAY (W)	E	103	590	139	302	0	1134
	Total	884	1302	426	764	1040	4416

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

2026 Growthed — GROWTH FACTOR: 1.0000

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	444	174	167	135	920
PURBROOK WAY (E)	B	406	0	31	170	476	1083
B2150	C	199	34	0	125	130	488
ASDA ACCESS	D	176	234	82	0	299	791
PURBROOK WAY (W)	E	103	590	139	302	0	1134
	Total	884	1302	426	764	1040	4416

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	22	22
PURBROOK WAY (E)	B	0	0	0	0	25	25
B2150	C	0	0	0	0	0	0
ASDA ACCESS	D	0	0	0	0	0	0
PURBROOK WAY (W)	E	14	16	0	0	0	30
	Total	14	16	0	0	47	77

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0%
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
E	0%	0%	#DIV/0!	#DIV/0!	#DIV/0!

2026 Baseline

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	444	174	167	157	942
PURBROOK WAY (E)	B	406	0	31	170	501	1108
B2150	C	199	34	0	125	130	488
ASDA ACCESS	D	176	234	82	0	299	791
PURBROOK WAY (W)	E	117	606	139	302	0	1164
	Total	898	1318	426	764	1087	4493

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-2	0	-2
PURBROOK WAY (E)	B	0	0	0	-8	16	8
B2150	C	0	0	0	-4	12	8
ASDA ACCESS	D	-2	-8	-4	0	-14	-28
PURBROOK WAY (W)	E	0	16	12	-14	0	14
	Total	-2	8	8	-28	14	0

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	0%	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
D	#DIV/0!	0%	0%	#DIV/0!	0%
E	#DIV/0!	0%	0%	0%	#DIV/0!

2026 + Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	444	174	165	157	940
PURBROOK WAY (E)	B	406	0	31	162	517	1116
B2150	C	199	34	0	121	142	496
ASDA ACCESS	D	174	226	78	0	285	763
PURBROOK WAY (W)	E	117	622	151	288	0	1178
	Total	896	1326	434	736	1101	4493

HGV

	A	B	C	D	E	Total
A						0
B						0
C						0
D						0
E						0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	0%	#DIV/0!	0%	0%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	0%	0%	0%	0%	#DIV/0!

SATURDAY PEAK
11:45-12:45

Survey Data — 2020 Survey

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	268	81	144	106	599
PURBROOK WAY (E)	B	236	1	27	226	400	890
B2150	C	98	33	0	139	102	372
ASDA ACCESS	D	144	271	97	0	327	839
PURBROOK WAY (W)	E	111	479	73	332	0	995
	Total	589	1052	278	841	935	3695

HGV

	A	B	C	D	E	Total
A	0	1	0	0	0	1
B	2	0	0	6	2	10
C	0	0	0	0	0	0
D	0	5	0	0	6	11
E	1	3	0	8	0	12
Total	3	9	0	14	8	34

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	1%	0%	0%	3%	1%
C	0%	0%	#DIV/0!	0%	0%
D	0%	2%	0%	#DIV/0!	2%
E	1%	1%	0%	2%	#DIV/0!

2026 Growthed — GROWTH FACTOR: 1.0726

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	287	87	154	114	642
PURBROOK WAY (E)	B	253	1	29	242	429	954
B2150	C	105	35	0	149	109	398
ASDA ACCESS	D	154	291	104	0	351	900
PURBROOK WAY (W)	E	119	514	78	356	0	1067
	Total	631	1128	298	901	1003	3961

HGV

	A	B	C	D	E	Total
A	0	1	0	0	0	1
B	2	0	0	6	2	10
C	0	0	0	0	0	0
D	0	5	0	0	6	11
E	1	3	0	9	0	13
Total	3	9	0	15	8	35

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	1%	0%	0%	2%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	2%	0%	#DIV/0!	2%
E	1%	1%	0%	3%	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	0	0	0
B2150	C	0	0	0	0	0	0
ASDA ACCESS	D	0	0	0	0	0	0
PURBROOK WAY (W)	E	0	0	0	0	0	0
	Total	0	0	0	0	0	0

HGV

	A	B	C	D	E	Total
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
E	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

2026 Baseline

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	287	87	154	114	642
PURBROOK WAY (E)	B	253	1	29	242	429	954
B2150	C	105	35	0	149	109	398
ASDA ACCESS	D	154	291	104	0	351	900
PURBROOK WAY (W)	E	119	514	78	356	0	1067
	Total	631	1128	298	901	1003	3961

HGV

	A	B	C	D	E	Total
A	0	1	0	0	0	1
B	2	0	0	6	2	10
C	0	0	0	0	0	0
D	0	5	0	0	6	11
E	1	3	0	9	0	13
Total	3	9	0	15	8	35

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	1%	0%	0%	2%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	2%	0%	#DIV/0!	2%
E	1%	1%	0%	3%	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-4	0	-4
PURBROOK WAY (E)	B	0	0	0	-10	24	14
B2150	C	0	0	0	-6	17	11
ASDA ACCESS	D	-4	-10	-6	0	-21	-41
PURBROOK WAY (W)	E	0	24	17	-21	0	20
	Total	-4	14	11	-41	20	0

HGV

	A	B	C	D	E	Total
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	0	0	0	0	0	0
D	0	0	0	0	0	0
E	0	0	0	0	0	0
Total	0	0	0	0	0	0

HGV (%)

	A	B	C	D	E
A	#DIV/0!	#DIV/0!	#DIV/0!	0%	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	0%	0%
D	0%	0%	0%	#DIV/0!	0%
E	#DIV/0!	0%	0%	0%	#DIV/0!

2026 + Development

TOTAL VEHICLES

		A	B	C	D	E	Total
HULBERT RD	A	0	287	87	150	114	638
PURBROOK WAY (E)	B	253	1	29	232	453	968
B2150	C	105	35	0	143	126	409
ASDA ACCESS	D	150	281	98	0	330	859
PURBROOK WAY (W)	E	119	538	95	335	0	1087
	Total	627	1142	309	860	1023	3961

HGV

	A	B	C	D	E	Total
A	0	1	0	0	0	1
B	2	0	0	6	2	10
C	0	0	0	0	0	0
D	0	5	0	0	6	11
E	1	3	0	9	0	13
Total	3	9	0	15	8	35

HGV (%)

	A	B	C	D	E
A	#DIV/0!	0%	0%	0%	0%
B	1%	0%	0%	3%	0%
C	0%	0%	#DIV/0!	0%	0%
D	0%	2%	0%	#DIV/0!	2%
E	1%	1%	0%	3%	#DIV/0!

LIDL Purbrook Way

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	581	135	153	877
PURBROOK WAY B	376	12	80	304	772
CROOKHORN LN C	142	129	1	56	328
STAKES RD D	76	468	35	2	581
Total	602	1190	251	515	2558

HGV

	A	B	C	D	Total
A	0	8	10	1	19
B	4	0	4	10	18
C	14	5	0	5	24
D	2	13	7	0	22
Total	20	26	21	16	83

HGV (%)

	A	B	C	D
A	0%	1%	7%	1%
B	1%	0%	5%	3%
C	10%	4%	0%	9%
D	3%	3%	20%	0%

2020 Baseline — GROWTH FACTOR 1.0559

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	613	143	162	926
PURBROOK WAY B	397	13	84	321	815
CROOKHORN LN C	150	136	1	59	346
STAKES RD D	80	494	37	2	613
Total	635	1256	265	544	2700

HGV

	A	B	C	D	Total
A	0	8	11	1	20
B	4	0	4	11	19
C	15	5	0	5	25
D	2	14	7	0	23
Total	21	27	22	17	87

HGV (%)

	A	B	C	D
A	0%	1%	8%	1%
B	1%	0%	5%	3%
C	10%	4%	0%	8%
D	3%	3%	19%	0%

2025 Growthed — GROWTH FACTOR 1.1255

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	654	152	172	987
PURBROOK WAY B	423	14	90	342	869
CROOKHORN LN C	160	145	1	63	369
STAKES RD D	86	527	39	2	654
Total	678	1340	282	579	2879

HGV

	A	B	C	D	Total
A	0	9	11	1	21
B	5	0	5	11	21
C	16	6	0	6	28
D	2	15	8	0	25
Total	23	30	24	18	95

HGV (%)

	A	B	C	D
A	0%	1%	7%	1%
B	1%	0%	6%	3%
C	10%	4%	0%	10%
D	2%	3%	21%	0%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	18	0	0	18
PURBROOK WAY B	42	0	0	22	64
CROOKHORN LN C	0	0	0	0	0
STAKES RD D	0	9	0	0	9
Total	42	27	0	22	91

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	#DIV/0!	#DIV/0!
B	0%	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	672	152	172	1005
PURBROOK WAY B	465	14	90	364	933
CROOKHORN LN C	160	145	1	63	369
STAKES RD D	86	536	39	2	663
Total	720	1367	282	601	2970

HGV

	A	B	C	D	Total
A	0	9	11	1	21
B	5	0	5	11	21
C	16	6	0	6	28
D	2	15	8	0	25
Total	23	30	24	18	95

HGV (%)

	A	B	C	D
A	0%	1%	7%	1%
B	1%	0%	6%	3%
C	10%	4%	0%	10%
D	2%	3%	21%	0%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	7	0	0	7
PURBROOK WAY B	5	0	0	5	10
CROOKHORN LN C	0	1	0	0	1
STAKES RD D	0	5	0	0	5
Total	5	13	0	5	23

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	#DIV/0!	#DIV/0!
B	0%	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	620	143	162	933
PURBROOK WAY B	402	13	84	326	825
CROOKHORN LN C	150	137	1	59	347
STAKES RD D	80	499	37	2	618
Total	640	1269	265	549	2723

HGV

	A	B	C	D	Total
A	0	8	11	1	20
B	4	0	4	11	19
C	15	5	0	5	25
D	2	14	7	0	23
Total	21	27	22	17	87

HGV (%)

	A	B	C	D
A	0%	1%	8%	1%
B	1%	0%	5%	3%
C	10%	4%	0%	8%
D	3%	3%	19%	0%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	679	152	172	1012
PURBROOK WAY B	470	14	90	369	943
CROOKHORN LN C	160	146	1	63	370
STAKES RD D	86	541	39	2	668
Total	725	1380	282	606	2993

HGV

	A	B	C	D	Total
A	0	9	11	1	21
B	5	0	5	11	21
C	16	6	0	6	28
D	2	15	8	0	25
Total	23	30	24	18	95

HGV (%)

	A	B	C	D
A	0%	1%	7%	1%
B	1%	0%	6%	3%
C	10%	4%	0%	10%
D	2%	3%	21%	0%

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	336	171	103	618
PURBROOK WAY B	427	7	112	463	1009
CROOKHORN LN C	187	78	0	63	328
STAKES RD D	155	315	37	1	508
Total	777	736	320	630	2463

HGV

	A	B	C	D	Total
A	2	4	11	2	19
B	5	1	7	2	15
C	8	2	0	7	17
D	4	6	6	0	16
Total	19	13	24	11	67

HGV (%)

	A	B	C	D
A	25%	1%	6%	2%
B	1%	14%	6%	0%
C	4%	3%	#DIV/0!	11%
D	3%	2%	16%	0%

2020 Baseline — GROWTH FACTOR 1.0494

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	353	179	108	648
PURBROOK WAY B	448	7	118	486	1059
CROOKHORN LN C	196	82	0	66	344
STAKES RD D	163	331	39	1	534
Total	815	773	336	661	2585

HGV

	A	B	C	D	Total
A	2	4	12	2	20
B	5	1	7	2	15
C	8	2	0	7	17
D	4	6	6	0	16
Total	19	13	25	11	68

HGV (%)

	A	B	C	D
A	25%	1%	7%	2%
B	1%	14%	6%	0%
C	4%	2%	#DIV/0!	11%
D	2%	2%	15%	0%

2025 Growthed — GROWTH FACTOR 1.1125

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	374	190	115	688
PURBROOK WAY B	475	8	125	515	1123
CROOKHORN LN C	208	87	0	70	365
STAKES RD D	172	350	41	1	564
Total	864	819	356	701	2740

HGV

	A	B	C	D	Total
A	2	4	12	2	20
B	6	1	8	2	17
C	9	2	0	8	19
D	4	7	7	0	18
Total	21	14	27	12	74

HGV (%)

	A	B	C	D
A	22%	1%	6%	2%
B	1%	13%	6%	0%
C	4%	2%	#DIV/0!	11%
D	2%	2%	17%	0%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	42	0	0	42
PURBROOK WAY B	25	0	0	13	38
CROOKHORN LN C	0	0	0	0	0
STAKES RD D	0	22	0	0	22
Total	25	64	0	13	102

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	#DIV/0!	#DIV/0!
B	0%	#DIV/0!	#DIV/0!	0%
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	416	190	115	730
PURBROOK WAY B	500	8	125	528	1161
CROOKHORN LN C	208	87	0	70	365
STAKES RD D	172	372	41	1	586
Total	889	883	356	714	2842

HGV

	A	B	C	D	Total
A	2	4	12	2	20
B	6	1	8	2	17
C	9	2	0	8	19
D	4	7	7	0	18
Total	21	14	27	12	74

HGV (%)

	A	B	C	D
A	22%	1%	6%	2%
B	1%	13%	6%	0%
C	4%	2%	#DIV/0!	11%
D	2%	2%	17%	0%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	10	0	0	10
PURBROOK WAY B	11	0	2	12	25
CROOKHORN LN C	0	2	0	0	2
STAKES RD D	0	12	0	0	12
Total	11	24	2	12	49

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	#DIV/0!	#DIV/0!
B	0%	#DIV/0!	0%	0%
C	#DIV/0!	0%	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	8	363	179	108	658
PURBROOK WAY B	459	7	120	498	1084
CROOKHORN LN C	196	84	0	66	346
STAKES RD D	163	343	39	1	546
Total	826	797	338	673	2634

HGV

	A	B	C	D	Total
A	2	4	12	2	20
B	5	1	7	2	15
C	8	2	0	7	17
D	4	6	6	0	16
Total	19	13	25	11	68

HGV (%)

	A	B	C	D
A	25%	1%	7%	2%
B	1%	14%	6%	0%
C	4%	2%	#DIV/0!	11%
D	2%	2%	15%	0%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	9	426	190	115	740
PURBROOK WAY B	511	8	127	540	1186
CROOKHORN LN C	208	89	0	70	367
STAKES RD D	172	384	41	1	598
Total	900	907	358	726	2891

HGV

	A	B	C	D	Total
A	2	4	12	2	20
B	6	1	8	2	17
C	9	2	0	8	19
D	4	7	7	0	18
Total	21	14	27	12	74

HGV (%)

	A	B	C	D
A	22%	1%	6%	2%
B	1%	13%	6%	0%
C	4%	2%	#DIV/0!	11%
D	2%	2%	17%	0%

SATURDAY PEAK
11:45-12:45

Survey Data — Uplifted 2020 Survey

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	301	132	101	535
PURBROOK WAY B	292	1	87	300	680
CROOKHORN LN C	130	74	1	58	263
STAKES RD D	101	309	52	2	464
Total	524	685	272	461	1942

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	5%	0%
B	0%	0%	2%	0%
C	4%	3%	0%	3%
D	1%	1%	8%	0%

2020 Baseline — GROWTH FACTOR 1.0000

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	301	132	101	535
PURBROOK WAY B	292	1	87	300	680
CROOKHORN LN C	130	74	1	58	263
STAKES RD D	101	309	52	2	464
Total	524	685	272	461	1942

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	5%	0%
B	0%	0%	2%	0%
C	4%	3%	0%	3%
D	1%	1%	8%	0%

2025 Growthed — GROWTH FACTOR 1.0648

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	321	141	108	571
PURBROOK WAY B	311	1	93	319	724
CROOKHORN LN C	138	79	1	62	280
STAKES RD D	108	329	55	2	494
Total	558	730	290	491	2069

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	4%	0%
B	0%	0%	2%	0%
C	4%	3%	0%	3%
D	1%	1%	7%	0%

Committed Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	0	0	0	0
PURBROOK WAY B	0	0	0	0	0
CROOKHORN LN C	0	0	0	0	0
STAKES RD D	0	0	0	0	0
Total	0	0	0	0	0

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
D	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	321	141	108	571
PURBROOK WAY B	311	1	93	319	724
CROOKHORN LN C	138	79	1	62	280
STAKES RD D	108	329	55	2	494
Total	558	730	290	491	2069

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	4%	0%
B	0%	0%	2%	0%
C	4%	3%	0%	3%
D	1%	1%	7%	0%

Additional Development Trips

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	0	15	0	0	15
PURBROOK WAY B	15	0	2	18	35
CROOKHORN LN C	0	2	0	0	2
STAKES RD D	0	18	0	0	18
Total	15	35	2	18	70

HGV

	A	B	C	D	Total
A	0	0	0	0	0
B	0	0	0	0	0
C	0	0	0	0	0
D	0	0	0	0	0
Total	0	0	0	0	0

HGV (%)

	A	B	C	D
A	#DIV/0!	0%	#DIV/0!	#DIV/0!
B	0%	#DIV/0!	0%	0%
C	#DIV/0!	0%	#DIV/0!	#DIV/0!
D	#DIV/0!	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	316	132	101	550
PURBROOK WAY B	307	1	89	318	715
CROOKHORN LN C	130	76	1	58	265
STAKES RD D	101	327	52	2	482
Total	539	720	274	479	2012

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	5%	0%
B	0%	0%	2%	0%
C	4%	3%	0%	3%
D	1%	1%	8%	0%

2025 + Development

TOTAL VEHICLES

	A	B	C	D	Total
STAKES HILL RD A	1	336	141	108	586
PURBROOK WAY B	326	1	95	337	759
CROOKHORN LN C	138	81	1	62	282
STAKES RD D	108	347	55	2	512
Total	573	765	292	509	2139

HGV

	A	B	C	D	Total
A	0	0	6	0	6
B	1	0	2	0	3
C	5	2	0	2	9
D	1	3	4	0	8
Total	7	5	12	2	26

HGV (%)

	A	B	C	D
A	0%	0%	4%	0%
B	0%	0%	2%	0%
C	4%	2%	0%	3%
D	1%	1%	7%	0%

LIDL Purbrook Way

Junction F - Purbrook Way / College Rd Signals

WEEKDAY AM PEAK
08:00-09:00

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	414	698	1112
COLLEGE ROAD	B	135	0	81	216
PURBROOK WAY (W)	C	1044	139	0	1183
	Total	1179	553	779	2511

HGV

	A	B	C	Total
A	0	15	7	22
B	16	0	5	21
C	22	0	0	22
Total	38	15	12	65

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	12%	#DIV/0!	6%
C	2%	0%	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0559

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	437	737	1174
COLLEGE ROAD	B	143	0	86	229
PURBROOK WAY (W)	C	1102	147	0	1249
	Total	1245	584	823	2652

HGV

	A	B	C	Total
A	0	16	7	23
B	17	0	5	22
C	23	0	0	23
Total	40	16	12	68

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	12%	#DIV/0!	6%
C	2%	0%	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.1255

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	466	786	1252
COLLEGE ROAD	B	152	0	91	243
PURBROOK WAY (W)	C	1175	156	0	1331
	Total	1327	622	877	2826

HGV

	A	B	C	Total
A	0	17	8	25
B	18	0	6	24
C	25	0	0	25
Total	43	17	14	74

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	12%	#DIV/0!	7%
C	2%	0%	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	80	0	80
COLLEGE ROAD	B	189	0	64	253
PURBROOK WAY (W)	C	0	28	0	28
	Total	189	108	64	361

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	#DIV/0!
B	0%	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	546	786	1332
COLLEGE ROAD	B	341	0	155	496
PURBROOK WAY (W)	C	1175	184	0	1359
	Total	1516	730	941	3187

HGV

	A	B	C	Total
A	0	17	8	25
B	18	0	6	24
C	25	0	0	25
Total	43	17	14	74

HGV (%)

	A	B	C
A	#DIV/0!	3%	1%
B	5%	#DIV/0!	4%
C	2%	0%	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	10	11
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	13	0	0	13
	Total	14	1	10	25

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	438	747	1185
COLLEGE ROAD	B	144	0	86	230
PURBROOK WAY (W)	C	1115	147	0	1262
	Total	1259	585	833	2677

HGV

	A	B	C	Total
A	0	16	7	23
B	17	0	5	22
C	23	0	0	23
Total	40	16	12	68

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	12%	#DIV/0!	6%
C	2%	0%	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	547	796	1343
COLLEGE ROAD	B	342	0	155	497
PURBROOK WAY (W)	C	1188	184	0	1372
	Total	1530	731	951	3212

HGV

	A	B	C	Total
A	0	17	8	25
B	18	0	6	24
C	25	0	0	25
Total	43	17	14	74

HGV (%)

	A	B	C
A	#DIV/0!	3%	1%
B	5%	#DIV/0!	4%
C	2%	0%	#DIV/0!

WEEKDAY PM PEAK
16:30-17:30

Survey Data — 2016 Traffic Survey Data

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	240	847	1087
COLLEGE ROAD	B	192	0	149	341
PURBROOK WAY (W)	C	679	99	0	778
	Total	871	339	996	2206

HGV

	A	B	C	Total
A	0	10	9	19
B	10	0	2	12
C	5	2	0	7
Total	15	12	11	38

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	5%	#DIV/0!	1%
C	1%	2%	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0494

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	252	889	1141
COLLEGE ROAD	B	201	0	156	357
PURBROOK WAY (W)	C	713	104	0	817
	Total	914	356	1045	2315

HGV

	A	B	C	Total
A	0	10	9	19
B	10	0	2	12
C	5	2	0	7
Total	15	12	11	38

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	5%	#DIV/0!	1%
C	1%	2%	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.1125

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	267	942	1209
COLLEGE ROAD	B	214	0	166	380
PURBROOK WAY (W)	C	755	110	0	865
	Total	969	377	1108	2454

HGV

	A	B	C	Total
A	0	11	10	21
B	11	0	2	13
C	6	2	0	8
Total	17	13	12	42

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	5%	#DIV/0!	1%
C	1%	2%	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	188	0	188
COLLEGE ROAD	B	115	0	40	155
PURBROOK WAY (W)	C	0	63	0	63
	Total	115	251	40	406

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	#DIV/0!
B	0%	#DIV/0!	0%
C	#DIV/0!	0%	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	455	942	1397
COLLEGE ROAD	B	329	0	206	535
PURBROOK WAY (W)	C	755	173	0	928
	Total	1084	628	1148	2860

HGV

	A	B	C	Total
A	0	11	10	21
B	11	0	2	13
C	6	2	0	8
Total	17	13	12	42

HGV (%)

	A	B	C
A	#DIV/0!	2%	1%
B	3%	#DIV/0!	1%
C	1%	1%	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	2	25	27
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	24	0	0	24
	Total	24	2	25	51

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	0%
B	#DIV/0!	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	254	914	1168
COLLEGE ROAD	B	201	0	156	357
PURBROOK WAY (W)	C	737	104	0	841
	Total	938	358	1070	2366

HGV

	A	B	C	Total
A	0	10	9	19
B	10	0	2	12
C	5	2	0	7
Total	15	12	11	38

HGV (%)

	A	B	C
A	#DIV/0!	4%	1%
B	5%	#DIV/0!	1%
C	1%	2%	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	457	967	1424
COLLEGE ROAD	B	329	0	206	535
PURBROOK WAY (W)	C	779	173	0	952
	Total	1108	630	1173	2911

HGV

	A	B	C	Total
A	0	11	10	21
B	11	0	2	13
C	6	2	0	8
Total	17	13	12	42

HGV (%)

	A	B	C
A	#DIV/0!	2%	1%
B	3%	#DIV/0!	1%
C	1%	1%	#DIV/0!

SATURDAY PEAK
11:45-12:45

Survey Data — Uplifted 2020 Survey

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2020 Baseline — GROWTH FACTOR 1.0000

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Growthed — GROWTH FACTOR 1.0648

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

Committed Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

2025 Baseline

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	0	0
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	0	0	0	0
	Total	0	0	0	0

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	#DIV/0!	#DIV/0!
B	#DIV/0!	#DIV/0!	#DIV/0!
C	#DIV/0!	#DIV/0!	#DIV/0!

Additional Development Trips

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2020 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

2025 + Development

TOTAL VEHICLES

		A	B	C	Total
PURBROOK WAY (E)	A	0	3	35	38
COLLEGE ROAD	B	3	0	0	3
PURBROOK WAY (W)	C	35	0	0	35
	Total	38	3	35	76

HGV

	A	B	C	Total
A	0	0	0	0
B	0	0	0	0
C	0	0	0	0
Total	0	0	0	0

HGV (%)

	A	B	C
A	#DIV/0!	0%	0%
B	0%	#DIV/0!	#DIV/0!
C	0%	#DIV/0!	#DIV/0!

LIDL Purbrook Way

DETAILED THREHOLD TESTING | 30 | 5%

WEEKDAY AM PEAK

ADDITIONAL DEVELOPMENT TRAFFIC — 2025 BASELINE IMPACT %

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	38	38
PRIVATE RD (S)	C	0	45	0	45
	Total	0	45	38	83

PRIVATE RD (N)	0.0%
LIDL ACCESS	#DIV/0!
PRIVATE RD (S)	40.7%
JUNCTION	40.7%

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A	0	15	4	19	38
PURBROOK WAY (E)	B	18	0	-1	-9	8
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	27	-10	-2	0	15
	Total	45	5	1	10	61

PRIVATE RD	40.5%
PURBROOK WAY (E)	0.6%
A3(M) J4 ON-SLIP	0.1%
PURBROOK WAY (W)	0.9%
JUNCTION	1.9%

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	11	11
A3(M) J4 OFF-SLIP	B	1	0	0	1
PURBROOK WAY (W)	C	14	0	0	14
	Total	15	0	11	26

PURBROOK WAY (E)	1.0%
A3(M) J4 OFF-SLIP	0.1%
PURBROOK WAY (W)	0.9%
JUNCTION	0.8%

Junction D - Purbrook Way / Hulbert Road Roundabout

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	0	0	0
PURBROOK WAY (E)	B	0	0	0	-4	8	4
B2150	C	0	0	0	-3	6	3
ASDA ACCESS	D	0	-3	-3	0	-6	-12
PURBROOK WAY (W)	E	0	7	5	-7	0	5
	Total	0	4	2	-14	8	0

HULBERT RD	0.0%
PURBROOK WAY (E)	0.4%
B2150	0.4%
ASDA ACCESS	-3.1%
PURBROOK WAY (W)	0.6%
JUNCTION	0.0%

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A	0	7	0	0	7
PURBROOK WAY	B	5	0	0	5	10
CROOKHORN LN	C	0	1	0	0	1
STAKES RD	D	0	5	0	0	5
	Total	5	13	0	5	23

STAKES HILL RD	0.7%
PURBROOK WAY	1.0%
CROOKHORN LN	0.2%
STAKES RD	0.8%
JUNCTION	0.8%

Junction F - Purbrook Way / College Rd Signals

		A	B	C	Total
PURBROOK WAY (E)	A	0	1	10	11
COLLEGE ROAD	B	1	0	0	1
PURBROOK WAY (W)	C	13	0	0	13
	Total	14	1	10	25

PURBROOK WAY (E)	0.9%
COLLEGE ROAD	0.2%
PURBROOK WAY (W)	1.0%
JUNCTION	0.8%

WEEKDAY PM PEAK

ADDITIONAL DEVELOPMENT TRAFFIC — 2025 BASELINE IMPACT %

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	88	88
PRIVATE RD (S)	C	0	85	0	85
	Total	0	85	88	173

PRIVATE RD (N)	0.0%
LIDL ACCESS	#DIV/0!
PRIVATE RD (S)	58.6%
JUNCTION	58.6%

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A	0	36	8	44	88
PURBROOK WAY (E)	B	34	0	-3	-17	14
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	51	-23	-2	0	26
	Total	85	13	3	27	128

PRIVATE RD	58.6%
PURBROOK WAY (E)	1.1%
A3(M) J4 ON-SLIP	0.4%
PURBROOK WAY (W)	2.2%
JUNCTION	4.3%

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	27	27
A3(M) J4 OFF-SLIP	B	2	0	0	2
PURBROOK WAY (W)	C	24	0	0	24
	Total	26	0	27	53

PURBROOK WAY (E)	2.2%
A3(M) J4 OFF-SLIP	0.1%
PURBROOK WAY (W)	2.0%
JUNCTION	1.7%

Junction D - Purbrook Way / Hulbert Road Roundabout

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-2	0	-2
PURBROOK WAY (E)	B	0	0	0	-8	16	8
B2150	C	0	0	0	-4	12	8
ASDA ACCESS	D	-2	-8	-4	0	-14	-28
PURBROOK WAY (W)	E	0	16	12	-14	0	14
	Total	-2	8	8	-28	14	0

HULBERT RD	-0.2%
PURBROOK WAY (E)	0.7%
B2150	1.8%
ASDA ACCESS	-3.6%
PURBROOK WAY (W)	1.2%
JUNCTION	0.0%

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A	0	10	0	0	10
PURBROOK WAY	B	11	0	2	12	25
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	12	0	0	12
	Total	11	24	2	12	49

STAKES HILL RD	1.3%
PURBROOK WAY	2.4%
CROOKHORN LN	0.6%
STAKES RD	1.8%
JUNCTION	1.7%

Junction F - Purbrook Way / College Rd Signals

		A	B	C	Total
PURBROOK WAY (E)	A	0	2	25	27
COLLEGE ROAD	B	0	0	0	0
PURBROOK WAY (W)	C	24	0	0	24
	Total	24	2	25	51

PURBROOK WAY (E)	2.1%
COLLEGE ROAD	0.2%
PURBROOK WAY (W)	2.4%
JUNCTION	1.8%

SATURDAY PEAK

ADDITIONAL DEVELOPMENT TRAFFIC — 2025 BASELINE IMPACT %

Junction A - Lidl Site Access Access

		A	B	C	Total
PRIVATE RD (N)	A	0	0	0	0
LIDL ACCESS	B	0	0	114	114
PRIVATE RD (S)	C	0	115	0	115
	Total	0	115	114	229

PRIVATE RD (N)	0.0%
LIDL ACCESS	#DIV/0!
PRIVATE RD (S)	29.5%
JUNCTION	29.5%

Junction B - Purbrook Way / A3(M) J4 southbound roundabout

		A	B	C	D	Total
PRIVATE RD	A	0	46	8	60	114
PURBROOK WAY (E)	B	46	0	-4	-22	20
A3(M) J4 ON-SLIP	C	0	0	0	0	0
PURBROOK WAY (W)	D	69	-26	-2	0	41
	Total	115	20	2	38	175

PRIVATE RD	29.5%
PURBROOK WAY (E)	1.9%
A3(M) J4 ON-SLIP	0.2%
PURBROOK WAY (W)	4.3%
JUNCTION	6.4%

Junction C - Purbrook Way / A3(M) J4 northbound roundabout

		A	B	C	Total
PURBROOK WAY (E)	A	0	0	38	38
A3(M) J4 OFF-SLIP	B	3	0	0	3
PURBROOK WAY (W)	C	38	0	0	38
	Total	41	0	38	79

PURBROOK WAY (E)	4.3%
A3(M) J4 OFF-SLIP	0.3%
PURBROOK WAY (W)	4.8%
JUNCTION	3.7%

Junction D - Purbrook Way / Hulbert Road Roundabout

		A	B	C	D	E	Total
HULBERT RD	A	0	0	0	-4	0	-4
PURBROOK WAY (E)	B	0	0	0	-10	24	14
B2150	C	0	0	0	-6	17	11
ASDA ACCESS	D	-4	-10	-6	0	-21	-41
PURBROOK WAY (W)	E	0	24	17	-21	0	20
	Total	-4	14	11	-41	20	0

HULBERT RD	-0.6%
PURBROOK WAY (E)	1.3%
B2150	3.2%
ASDA ACCESS	-4.6%
PURBROOK WAY (W)	1.9%
JUNCTION	0.0%

Junction E - Purbrook Way / Stakes Rd / Stakes Hill Rd / Crookhorn Ln roundabout

		A	B	C	D	Total
STAKES HILL RD	A	0	15	0	0	15
PURBROOK WAY	B	15	0	2	18	35
CROOKHORN LN	C	0	2	0	0	2
STAKES RD	D	0	18	0	0	18
	Total	15	35	2	18	70

STAKES HILL RD	2.7%
PURBROOK WAY	4.8%
CROOKHORN LN	0.7%
STAKES RD	3.7%
JUNCTION	3.4%

APPENDIX K: PICADY Output – Lidl Site Access

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462
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Filename: PICADY - Site access junction (v3 March2021).j9
Path: H:\LIDLPurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Picady - Site access
Report generation date: 16/03/2021 09:44:12

»2020 + devt, AM
»2025 + devt, AM
»2020 + devt, PM
»2025 + devt, PM
»2020 + devt, SAT
»2025 + devt , SAT

Summary of junction performance

	AM						PM						SAT					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2020 + devt																	
Stream B-AC	D6	0.1	5.47	0.06	A	681 % [Stream C-AB]	D11	0.2	6.13	0.14	A	329 % [Stream C-AB]	D16	0.3	7.32	0.20	A	159 % [Stream C-AB]
Stream C-AB		0.1	6.60	0.08	A			0.2	7.22	0.16	A			0.4	7.84	0.25	A	
	2025 + devt																	
Stream B-AC	D7	0.1	5.48	0.06	A	666 % [Stream C-AB]	D12	0.2	6.16	0.14	A	322 % [Stream C-AB]	D17	0.3	7.43	0.21	A	152 % [Stream C-AB]
Stream C-AB		0.1	6.61	0.08	A			0.2	7.23	0.16	A			0.4	7.85	0.25	A	

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

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

Date	16/03/2021
Version	
Status	v3
Identifier	
Client	
Jobnumber	
Enumerator	MAYERBROWN2K\hiorwerth
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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2020 + devt	AM	2020 uplifted flows + development	ONE HOUR	07:45	09:15	15
D7	2025 + devt	AM	2025 flows + development	ONE HOUR	07:45	09:15	15
D11	2020 + devt	PM	2020 uplifted flows + development	ONE HOUR	16:15	17:45	15
D12	2025 + devt	PM	2025 flows + development	ONE HOUR	16:15	17:45	15
D16	2020 + devt	SAT	2020 uplifted flows + development	ONE HOUR	11:30	13:00	15
D17	2025 + devt	SAT	2025 flows + development	ONE HOUR	11:30	13:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 + devt, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.76	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	681	Stream C-AB

Arms

Arms

Arm	Name	Description	Arm type
A	B&Q access road (N)		Major
B	Lidl		Minor
C	B&Q access road (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - B&Q access road (S)	7.80			60.0	✓	1.00

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 - Lidl	One lane	4.50	9	13

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	0.094	0.238	0.150	0.340
B-C	727	0.103	0.260	-	-
C-B	609	0.217	0.217	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.
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	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2020 + devt	AM	2020 uplifted flows + development	ONE HOUR	07:45	09:15	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 - B&Q access road (N)		✓	88	100.000
B - Lidl		✓	38	100.000
C - B&Q access road (S)		✓	150	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	88
	B - Lidl	0	0	38
	C - B&Q access road (S)	105	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	7
	B - Lidl	0	0	0
	C - B&Q access road (S)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	5.47	0.1	A
C-AB	0.08	6.60	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	709	0.040	28	0.0	5.291	A
C-AB	34	598	0.057	34	0.1	6.380	A
C-A	79			79			
A-B	0			0			
A-C	66			66			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	705	0.048	34	0.1	5.365	A
C-AB	41	597	0.069	41	0.1	6.475	A
C-A	94			94			
A-B	0			0			
A-C	79			79			

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	42	700	0.060	42	0.1	5.468	A
C-AB	50	596	0.085	50	0.1	6.597	A
C-A	115			115			
A-B	0			0			
A-C	97			97			

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	42	700	0.060	42	0.1	5.468	A
C-AB	50	596	0.085	50	0.1	6.597	A
C-A	115			115			
A-B	0			0			
A-C	97			97			

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	34	705	0.048	34	0.1	5.368	A
C-AB	41	597	0.069	41	0.1	6.479	A
C-A	94			94			
A-B	0			0			
A-C	79			79			

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	29	709	0.040	29	0.0	5.293	A
C-AB	34	598	0.057	34	0.1	6.389	A
C-A	79			79			
A-B	0			0			
A-C	66			66			

2025 + devt, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.69	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	666	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D7	2025 + devt	AM	2025 flows + development	ONE HOUR	07:45	09:15	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 - B&Q access road (N)		✓	93	100.000
B - Lidl		✓	38	100.000
C - B&Q access road (S)		✓	156	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	93
	B - Lidl	0	0	38
	C - B&Q access road (S)	111	45	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	8
	B - Lidl	0	0	0
	C - B&Q access road (S)	7	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.06	5.48	0.1	A
C-AB	0.08	6.61	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	29	707	0.040	28	0.0	5.300	A
C-AB	34	597	0.057	34	0.1	6.389	A
C-A	83			83			
A-B	0			0			
A-C	70			70			

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	34	704	0.049	34	0.1	5.377	A
C-AB	41	596	0.069	41	0.1	6.485	A
C-A	99			99			
A-B	0			0			
A-C	84			84			

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	42	698	0.060	42	0.1	5.483	A
C-AB	50	595	0.085	50	0.1	6.609	A
C-A	121			121			
A-B	0			0			
A-C	102			102			

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	42	698	0.060	42	0.1	5.483	A
C-AB	50	595	0.085	50	0.1	6.609	A
C-A	121			121			
A-B	0			0			
A-C	102			102			

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	34	704	0.049	34	0.1	5.379	A
C-AB	41	596	0.069	41	0.1	6.489	A
C-A	99			99			
A-B	0			0			
A-C	84			84			

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	29	707	0.040	29	0.0	5.305	A
C-AB	34	597	0.057	34	0.1	6.398	A
C-A	83			83			
A-B	0			0			
A-C	70			70			

2020 + devt, PM

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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.60	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	329	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D11	2020 + devt	PM	2020 uplifted flows + development	ONE HOUR	16:15	17:45	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 - B&Q access road (N)		✓	149	100.000
B - Lidl		✓	88	100.000
C - B&Q access road (S)		✓	214	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	149
	B - Lidl	0	0	88
	C - B&Q access road (S)	129	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
	A - B&Q access road (N)	0	0	0
	B - Lidl	0	0	0
	C - B&Q access road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	6.13	0.2	A
C-AB	0.16	7.22	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	698	0.095	66	0.1	5.691	A
C-AB	65	595	0.110	65	0.1	6.783	A
C-A	96			96			
A-B	0			0			
A-C	112			112			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	692	0.114	79	0.1	5.870	A
C-AB	78	595	0.132	78	0.2	6.967	A
C-A	114			114			
A-B	0			0			
A-C	134			134			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	684	0.142	97	0.2	6.123	A
C-AB	97	596	0.163	97	0.2	7.212	A
C-A	138			138			
A-B	0			0			
A-C	164			164			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service

B-AC	97	684	0.142	97	0.2	6.126	A
C-AB	97	596	0.163	97	0.2	7.218	A
C-A	138			138			
A-B	0			0			
A-C	164			164			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	692	0.114	79	0.1	5.875	A
C-AB	78	595	0.132	79	0.2	6.977	A
C-A	114			114			
A-B	0			0			
A-C	134			134			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	698	0.095	66	0.1	5.700	A
C-AB	65	595	0.110	65	0.1	6.800	A
C-A	96			96			
A-B	0			0			
A-C	112			112			

2025 + devt, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.51	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	322	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D12	2025 + devt	PM	2025 flows + development	ONE HOUR	16:15	17:45	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 - B&Q access road (N)		✓	158	100.000
B - Lidl		✓	88	100.000
C - B&Q access road (S)		✓	222	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	158
	B - Lidl	0	0	88
	C - B&Q access road (S)	137	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	1
	B - Lidl	0	0	0
	C - B&Q access road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.14	6.16	0.2	A
C-AB	0.16	7.23	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

16:15 - 16:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	696	0.095	66	0.1	5.710	A
C-AB	65	594	0.110	65	0.1	6.797	A
C-A	102			102			
A-B	0			0			
A-C	119			119			

16:30 - 16:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service

B-AC	79	690	0.115	79	0.1	5.894	A
C-AB	79	594	0.132	78	0.2	6.983	A
C-A	121			121			
A-B	0			0			
A-C	142			142			

16:45 - 17:00

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	681	0.142	97	0.2	6.155	A
C-AB	98	595	0.164	97	0.2	7.230	A
C-A	147			147			
A-B	0			0			
A-C	174			174			

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	97	681	0.142	97	0.2	6.157	A
C-AB	98	595	0.164	98	0.2	7.234	A
C-A	147			147			
A-B	0			0			
A-C	174			174			

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	690	0.115	79	0.1	5.897	A
C-AB	79	594	0.132	79	0.2	6.991	A
C-A	121			121			
A-B	0			0			
A-C	142			142			

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	66	696	0.095	66	0.1	5.719	A
C-AB	65	594	0.110	65	0.1	6.814	A
C-A	102			102			
A-B	0			0			
A-C	119			119			

2020 + devt, SAT

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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS

1	untitled	T-Junction	Two-way		1.94	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	159	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D16	2020 + devt	SAT	2020 uplifted flows + development	ONE HOUR	11:30	13:00	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 - B&Q access road (N)		✓	385	100.000
B - Lidl		✓	114	100.000
C - B&Q access road (S)		✓	458	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	385
	B - Lidl	0	0	114
	C - B&Q access road (S)	343	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	0
	B - Lidl	0	0	0
	C - B&Q access road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.20	7.32	0.3	A
C-AB	0.25	7.84	0.4	A
C-A				

A-B				
A-C				

Main Results for each time segment

11:30 - 11:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	652	0.132	85	0.2	6.347	A
C-AB	93	587	0.159	92	0.2	7.272	A
C-A	252			252			
A-B	0			0			
A-C	290			290			

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	102	637	0.161	102	0.2	6.729	A
C-AB	115	593	0.194	115	0.3	7.523	A
C-A	297			297			
A-B	0			0			
A-C	346			346			

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	126	617	0.203	125	0.3	7.318	A
C-AB	149	609	0.245	149	0.4	7.821	A
C-A	355			355			
A-B	0			0			
A-C	424			424			

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	126	617	0.203	126	0.3	7.323	A
C-AB	149	609	0.245	149	0.4	7.837	A
C-A	355			355			
A-B	0			0			
A-C	424			424			

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	102	637	0.161	103	0.2	6.738	A
C-AB	115	593	0.194	115	0.3	7.546	A
C-A	297			297			
A-B	0			0			
A-C	346			346			

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	86	652	0.132	86	0.2	6.366	A
C-AB	93	587	0.159	93	0.2	7.304	A
C-A	252			252			
A-B	0			0			
A-C	290			290			

2025 + devt , SAT

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.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		1.87	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	152	Stream C-AB

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Description	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D17	2025 + devt	SAT	2025 flows + development	ONE HOUR	11:30	13:00	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 - B&Q access road (N)		✓	410	100.000
B - Lidl		✓	114	100.000
C - B&Q access road (S)		✓	480	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A - B&Q access road (N)	**B - Lidl**	**C - B&Q access road (S)**
From	**A - B&Q access road (N)**	0	0	410
	B - Lidl	0	0	114
	C - B&Q access road (S)	365	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A - B&Q access road (N)	B - Lidl	C - B&Q access road (S)
From	A - B&Q access road (N)	0	0	0
	B - Lidl	0	0	0
	C - B&Q access road (S)	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
B-AC	0.21	7.43	0.3	A
C-AB	0.25	7.85	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

11:30 - 11:45

Stream	Total Demand (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	86	647	0.133	85	0.2	6.402	A
C-AB	94	586	0.160	93	0.2	7.297	A
C-A	268			268			
A-B	0			0			
A-C	309			309			

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	102	631	0.162	102	0.2	6.803	A
C-AB	116	593	0.196	116	0.3	7.545	A
C-A	316			316			
A-B	0			0			
A-C	369			369			

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	126	610	0.206	125	0.3	7.426	A
C-AB	151	610	0.248	151	0.4	7.836	A
C-A	377			377			
A-B	0			0			
A-C	451			451			

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	126	610	0.206	126	0.3	7.432	A
C-AB	151	610	0.248	151	0.4	7.853	A
C-A	377			377			
A-B	0			0			
A-C	451			451			

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	102	631	0.162	103	0.2	6.812	A
C-AB	116	593	0.196	116	0.3	7.570	A
C-A	316			316			
A-B	0			0			
A-C	369			369			

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	86	647	0.133	86	0.2	6.419	A
C-AB	94	586	0.160	94	0.2	7.327	A
C-A	268			268			
A-B	0			0			
A-C	309			309			

APPENDIX L: ARCADY Output – Purbrook Way / A3(M) Roundabouts

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Arcady - Purbrook Way - Site access - A3(M) (v2 March2021).j9
Path: H:\LIDLPurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Arcady - Purbrook Way dumbbell roundabouts
Report generation date: 16/03/2021 10:12:01

»2016 observed, AM
»2020 base, AM
»2025 base, AM
»2020 + devt, AM
»2025 + devt, AM
»2016 observed, PM
»2020 base, PM
»2025 base, PM
»2020 + devt, PM
»2025 + devt, PM
»2020 uplifted, SAT
»2020 base, SAT
»2025 base, SAT
»2020 + devt, SAT
»2025 + devt, SAT

Summary of junction performance

	AM						PM						SAT					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2016 observed																		
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D1	0.2	7.94	0.17	A	15 % [1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)]	D6	0.3	7.43	0.24	A	16 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]						
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		1.8	5.56	0.64	A			1.0	3.68	0.51	A							
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		2.7	5.97	0.73	A			2.3	5.26	0.70	A							
2 - Western roundabout - 1 - Purbrook Way (E)		0.7	3.48	0.42	A			0.5	3.04	0.34	A							
2 - Western roundabout - 2 - A3(M) off-slip		1.0	4.33	0.49	A			2.3	6.62	0.70	A							
2 - Western roundabout - 3 - Purbrook Way (W)		3.5	9.89	0.78	A			1.8	6.80	0.64	A							

	2020 base																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D2	0.2	9.19	0.20	A	11 % [2 - Western roundabout - 3 - Purbrook Way (W)]	D7	0.5	9.98	0.31	A	10 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]	D12	0.9	7.85	0.48	A	17 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		2.2	6.49	0.69	A			1.2	4.01	0.55	A			1.1	4.02	0.53	A	
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		3.4	7.06	0.77	A			3.5	7.14	0.78	A			1.6	4.29	0.62	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.8	3.62	0.44	A			0.6	3.12	0.36	A			0.4	2.79	0.29	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.1	4.78	0.53	A			3.5	9.46	0.78	A			0.9	3.73	0.48	A	
2 - Western roundabout - 3 - Purbrook Way (W)		4.8	13.00	0.83	B			2.8	9.76	0.74	A			1.1	4.86	0.52	A	
	2025 base																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D3	0.5	16.03	0.32	C	-7 % [2 - Western roundabout - 3 - Purbrook Way (W)]	D8	0.6	13.49	0.39	B	2 % [2 - Western roundabout - 2 - A3(M) off-slip]	D13	1.2	9.47	0.54	A	12 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		4.0	11.38	0.81	B			1.7	5.15	0.63	A			1.4	4.48	0.58	A	
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		7.5	14.00	0.89	B			4.9	9.59	0.84	A			2.0	4.87	0.67	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.9	3.91	0.48	A			0.7	3.39	0.41	A			0.4	2.86	0.31	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.7	6.27	0.63	A			8.9	22.18	0.91	C			1.1	4.09	0.52	A	
2 - Western roundabout - 3 - Purbrook Way (W)		42.3	85.62	1.03	F			4.7	14.72	0.83	B			1.3	5.45	0.56	A	
	2020 + devt																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D4	0.4	9.68	0.27	A	10 % [2 - Western roundabout - 3 - Purbrook Way (W)]	D9	0.7	10.39	0.43	B	10 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]	D14	1.5	9.94	0.60	A	12 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		2.3	6.81	0.70	A			1.3	4.21	0.56	A			1.3	4.38	0.56	A	
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		3.6	7.50	0.79	A			3.1	6.59	0.76	A			1.8	4.72	0.65	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.8	3.66	0.45	A			0.6	3.20	0.37	A			0.5	2.88	0.31	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.1	4.84	0.53	A			3.0	8.30	0.75	A			1.0	3.87	0.49	A	
2 - Western roundabout - 3 - Purbrook Way (W)		5.1	13.79	0.84	B			2.4	8.36	0.71	A			1.2	5.06	0.54	A	
	2025 + devt																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site	D5	0.7	17.55	0.42	C	-7 % [2 - Western roundabout - 3 - Purbrook Way (W)]	D10	1.4	18.95	0.59	C	1 % [2 - Western roundabout - 2 - A3(M) off-slip]	D15	2.0	12.69	0.67	B	8 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)		4.4	12.24	0.82	B			1.9	5.61	0.65	A			1.5	4.93	0.61	A	
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)		8.0	15.04	0.90	C			5.8	11.23	0.86	B			2.2	5.41	0.69	A	
2 - Western roundabout - 1 - Purbrook Way (E)		0.9	3.96	0.49	A			0.7	3.48	0.42	A			0.5	2.96	0.33	A	
2 - Western roundabout - 2 - A3(M) off-slip		1.7	6.38	0.63	A			10.2	25.58	0.92	D			1.1	4.26	0.53	A	
2 - Western roundabout - 3 - Purbrook Way (W)		48.3	95.23	1.04	F			5.4	16.50	0.85	C			1.4	5.70	0.59	A	
	2020 uplifted																	
1 - Eastern (B&Q) roundabout - 1 - B&Q / site													D11	0.9	7.85	0.48	A	17 % [1 - Eastern (B&Q) roundabout - 1 - B&Q / site]
1 - Eastern (B&Q) roundabout - 2 - Purbrook Way (E)														1.1	4.02	0.53	A	
1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)														1.6	4.29	0.62	A	
2 - Western roundabout - 1 - Purbrook Way (E)														0.4	2.79	0.29	A	
2 - Western roundabout - 2 - A3(M) off-slip														0.9	3.73	0.48	A	

2 - Western roundabout - 3 - Purbrook Way (W)														1.1	4.86	0.52	A	

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. 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	
Location	
Site number	
Date	16/03/2021
Version	
Status	v2
Identifier	
Client	
Jobnumber	
Enumerator	MAYERBROWN2K\hiorwerth
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	2016 observed	AM	ONE HOUR	07:45	09:15	15
D2	2020 base	AM	ONE HOUR	07:45	09:15	15
D3	2025 base	AM	ONE HOUR	07:45	09:15	15
D4	2020 + devt	AM	ONE HOUR	07:45	09:15	15
D5	2025 + devt	AM	ONE HOUR	07:45	09:15	15
D6	2016 observed	PM	ONE HOUR	16:15	17:45	15
D7	2020 base	PM	ONE HOUR	16:15	17:45	15
D8	2025 base	PM	ONE HOUR	16:15	17:45	15
D9	2020 + devt	PM	ONE HOUR	16:15	17:45	15
D10	2025 + devt	PM	ONE HOUR	16:15	17:45	15
D11	2020 uplifted	SAT	ONE HOUR	11:30	13:00	15
D12	2020 base	SAT	ONE HOUR	11:30	13:00	15
D13	2025 base	SAT	ONE HOUR	11:30	13:00	15
D14	2020 + devt	SAT	ONE HOUR	11:30	13:00	15
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2016 observed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	5.87	A
2	Western roundabout	Standard Roundabout		1, 2, 3	6.65	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	15	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)

Arms

Arms

Junction	Arm	Name	Description
1 - Eastern (B&Q) roundabout	1	B&Q / site	
	2	Purbrook Way (E)	
	3	A3(M) on-slip	
	4	Purbrook Way (W)	
2 - Western roundabout	1	Purbrook Way (E)	
	2	A3(M) off-slip	
	3	Purbrook Way (W)	

Roundabout Geometry

Junction	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)	Exit only
1 - Eastern (B&Q) roundabout	1 - B&Q / site	3.60	5.90	13.5	35.0	41.5	11.0	
	2 - Purbrook Way (E)	6.90	6.90	0.0	120.0	41.5	5.0	
	3 - A3(M) on-slip							✓
	4 - Purbrook Way (W)	7.10	8.10	2.3	36.0	41.5	23.0	
2 - Western roundabout	1 - Purbrook Way (E)	6.00	6.00	0.0	30.0	30.0	32.0	
	2 - A3(M) off-slip	6.70	7.50	9.3	32.0	30.0	27.0	
	3 - Purbrook Way (W)	6.00	6.00	0.0	90.0	30.0	11.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Junction	Arm	Final slope	Final intercept (PCU/hr)
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.660	1676
	2 - Purbrook Way (E)	0.807	2357
	3 - A3(M) on-slip		
	4 - Purbrook Way (W)	0.788	2383
2 - Western roundabout	1 - Purbrook Way (E)	0.688	1835
	2 - A3(M) off-slip	0.786	2284
	3 - Purbrook Way (W)	0.753	2007

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	2016 observed	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	83	100.000
	2 - Purbrook Way (E)		✓	1043	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	733	100.000
	3 - Purbrook Way (W)		✓	1182	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	54	12	17
	2 - Purbrook Way (E)	35	0	365	643
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	64	890	512	14

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	3	0	660
	2 - A3(M) off-slip	337	0	396
	3 - Purbrook Way (W)	1177	0	5

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	11	0	6
	2 - Purbrook Way (E)	3	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	8	4	4	7

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.17	7.94	0.2	A
	2 - Purbrook Way (E)	0.64	5.56	1.8	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.73	5.97	2.7	A
2 - Western roundabout	1 - Purbrook Way (E)	0.42	3.48	0.7	A
	2 - A3(M) off-slip	0.49	4.33	1.0	A
	3 - Purbrook Way (W)	0.78	9.89	3.5	A

Main Results for each time segment

07:45 - 08:00

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	62	1074	866	0.072	62	0.1	4.477	A
	2 - Purbrook Way (E)	785	421	1959	0.401	783	0.7	3.054	A
	3 - A3(M) on-slip		532						
	4 - Purbrook Way (W)	1127	26	2266	0.497	1123	1.0	3.137	A
2 - Western roundabout	1 - Purbrook Way (E)	507	4	1779	0.285	505	0.4	2.821	A
	2 - A3(M) off-slip	552	509	1829	0.302	550	0.4	2.812	A
	3 - Purbrook Way (W)	890	255	1755	0.507	886	1.0	4.124	A

08:00 - 08:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	75	1288	731	0.102	74	0.1	5.484	A
	2 - Purbrook Way (E)	938	505	1890	0.496	936	1.0	3.769	A
	3 - A3(M) on-slip		637						
	4 - Purbrook Way (W)	1348	31	2262	0.596	1346	1.5	3.923	A
2 - Western roundabout	1 - Purbrook Way (E)	606	4	1779	0.341	606	0.5	3.067	A
	2 - A3(M) off-slip	659	610	1748	0.377	658	0.6	3.301	A
	3 - Purbrook Way (W)	1063	305	1717	0.619	1060	1.6	5.464	A

08:15 - 08:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	91	1571	552	0.166	91	0.2	7.809	A
	2 - Purbrook Way (E)	1148	615	1799	0.638	1145	1.7	5.481	A
	3 - A3(M) on-slip		779						
	4 - Purbrook Way (W)	1647	38	2257	0.730	1642	2.6	5.809	A
2 - Western roundabout	1 - Purbrook Way (E)	742	5	1778	0.417	741	0.7	3.469	A
	2 - A3(M) off-slip	807	746	1641	0.492	806	1.0	4.303	A
	3 - Purbrook Way (W)	1301	374	1665	0.782	1294	3.4	9.531	A

08:30 - 08:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	91	1582	544	0.168	91	0.2	7.945	A
	2 - Purbrook Way (E)	1148	620	1796	0.640	1148	1.8	5.559	A
	3 - A3(M) on-slip		781						

	4 - Purbrook Way (W)	1654	39	2257	0.733	1654	2.7	5.966	A
2 - Western roundabout	**1 - Purbrook Way (E)**	744	6	1778	0.418	743	0.7	3.478	A
	2 - A3(M) off-slip	807	749	1639	0.493	807	1.0	4.328	A
	3 - Purbrook Way (W)	1301	374	1664	0.782	1301	3.5	9.889	A

08:45 - 09:00

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	75	1305	720	0.104	75	0.1	5.582	A
	2 - Purbrook Way (E)	938	511	1885	0.497	941	1.0	3.823	A
	3 - A3(M) on-slip		640						
	4 - Purbrook Way (W)	1359	32	2262	0.601	1364	1.5	4.028	A
2 - Western roundabout	**1 - Purbrook Way (E)**	609	5	1779	0.342	610	0.5	3.081	A
	2 - A3(M) off-slip	659	614	1745	0.378	660	0.6	3.322	A
	3 - Purbrook Way (W)	1063	306	1716	0.619	1070	1.7	5.634	A

09:00 - 09:15

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	62	1087	858	0.073	63	0.1	4.528	A
	2 - Purbrook Way (E)	785	426	1955	0.402	787	0.7	3.083	A
	3 - A3(M) on-slip		535						
	4 - Purbrook Way (W)	1134	26	2266	0.500	1136	1.0	3.193	A
2 - Western roundabout	**1 - Purbrook Way (E)**	509	4	1779	0.286	510	0.4	2.836	A
	2 - A3(M) off-slip	552	514	1825	0.302	553	0.4	2.830	A
	3 - Purbrook Way (W)	890	256	1754	0.507	892	1.0	4.189	A

2020 base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	6.90	A
2	Western roundabout	Standard Roundabout		1, 2, 3	8.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	11	2 - Western roundabout - 3 - Purbrook Way (W)

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	2020 base	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	88	100.000
	2 - Purbrook Way (E)		✓	1101	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	774	100.000
	3 - Purbrook Way (W)		✓	1248	100.000

Origin-Destination Data

1 - Eastern (B&Q) roundabout

Demand (Veh/hr)

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	57	13	18
	2 - Purbrook Way (E)	37	0	385	679
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	68	940	541	15

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	3	0	697
	2 - A3(M) off-slip	356	0	418
	3 - Purbrook Way (W)	1243	0	5

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	11	0	6
	2 - Purbrook Way (E)	3	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	7	4	4	7

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.20	9.19	0.2	A
	2 - Purbrook Way (E)	0.69	6.49	2.2	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.77	7.06	3.4	A
2 - Western roundabout	1 - Purbrook Way (E)	0.44	3.62	0.8	A
	2 - A3(M) off-slip	0.53	4.78	1.1	A
	3 - Purbrook Way (W)	0.83	13.00	4.8	B

Main Results for each time segment

07:45 - 08:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	66	1134	829	0.080	66	0.1	4.717	A
	2 - Purbrook Way (E)	829	445	1939	0.427	826	0.7	3.226	A
	3 - A3(M) on-slip		562						
	4 - Purbrook Way (W)	1190	28	2266	0.525	1185	1.1	3.317	A
2 - Western roundabout	1 - Purbrook Way (E)	535	4	1779	0.301	533	0.4	2.886	A
	2 - A3(M) off-slip	583	537	1806	0.323	581	0.5	2.935	A
	3 - Purbrook Way (W)	940	269	1744	0.539	935	1.2	4.425	A

08:00 - 08:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	79	1360	686	0.115	79	0.1	5.932	A
	2 - Purbrook Way (E)	990	533	1867	0.530	988	1.1	4.092	A
	3 - A3(M) on-slip		672						
	4 - Purbrook Way (W)	1424	33	2262	0.630	1422	1.7	4.272	A
2 - Western roundabout	1 - Purbrook Way (E)	640	4	1779	0.360	640	0.6	3.158	A
	2 - A3(M) off-slip	696	644	1721	0.404	695	0.7	3.502	A
	3 - Purbrook Way (W)	1122	322	1704	0.659	1119	1.9	6.126	A

08:15 - 08:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	97	1655	499	0.194	96	0.2	8.939	A
	2 - Purbrook Way (E)	1212	649	1772	0.684	1208	2.1	6.345	A
	3 - A3(M) on-slip		822						
	4 - Purbrook Way (W)	1736	41	2256	0.770	1730	3.2	6.763	A
2 - Western roundabout	1 - Purbrook Way (E)	783	5	1778	0.440	782	0.8	3.610	A
	2 - A3(M) off-slip	852	787	1608	0.530	850	1.1	4.740	A

	3 - Purbrook Way (W)	1374	395	1649	0.833	1363	4.6	12.153	B

08:30 - 08:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	97	1671	489	0.198	97	0.2	9.188	A
	2 - Purbrook Way (E)	1212	655	1767	0.686	1212	2.2	6.488	A
	3 - A3(M) on-slip		825						
	4 - Purbrook Way (W)	1747	41	2256	0.774	1747	3.4	7.055	A
2 - Western roundabout	1 - Purbrook Way (E)	785	6	1778	0.442	785	0.8	3.625	A
	2 - A3(M) off-slip	852	791	1605	0.531	852	1.1	4.778	A
	3 - Purbrook Way (W)	1374	395	1648	0.834	1373	4.8	13.004	B

08:45 - 09:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	79	1383	671	0.118	80	0.1	6.092	A
	2 - Purbrook Way (E)	990	542	1859	0.532	994	1.1	4.179	A
	3 - A3(M) on-slip		676						
	4 - Purbrook Way (W)	1439	33	2262	0.636	1446	1.8	4.445	A
2 - Western roundabout	1 - Purbrook Way (E)	644	5	1779	0.362	645	0.6	3.179	A
	2 - A3(M) off-slip	696	650	1717	0.405	698	0.7	3.538	A
	3 - Purbrook Way (W)	1122	324	1703	0.659	1133	2.0	6.441	A

09:00 - 09:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	66	1149	819	0.081	66	0.1	4.784	A
	2 - Purbrook Way (E)	829	450	1935	0.428	830	0.8	3.264	A
	3 - A3(M) on-slip		565						
	4 - Purbrook Way (W)	1199	28	2266	0.529	1201	1.1	3.391	A
2 - Western roundabout	1 - Purbrook Way (E)	538	4	1779	0.302	539	0.4	2.904	A
	2 - A3(M) off-slip	583	543	1802	0.323	584	0.5	2.956	A
	3 - Purbrook Way (W)	940	271	1743	0.539	943	1.2	4.515	A

2025 base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	13.08	B
2	Western roundabout	Standard Roundabout		1, 2, 3	43.64	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	2 - Western roundabout - 3 - Purbrook Way (W)

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	2025 base	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	94	100.000
	2 - Purbrook Way (E)		✓	1194	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			

2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	886	100.000
	3 - Purbrook Way (W)		✓	1521	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	61	14	19
	2 - Purbrook Way (E)	39	0	411	744
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	72	1050	717	16

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	3	0	763
	2 - A3(M) off-slip	379	0	507
	3 - Purbrook Way (W)	1515	0	6

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	11	0	5
	2 - Purbrook Way (E)	3	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	8	4	3	6

Heavy Vehicle Percentages

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.32	16.03	0.5	C
	2 - Purbrook Way (E)	0.81	11.38	4.0	B

	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.89	14.00	7.5	B
2 - Western roundabout	1 - Purbrook Way (E)	0.48	3.91	0.9	A
	2 - A3(M) off-slip	0.63	6.27	1.7	A
	3 - Purbrook Way (W)	1.03	85.62	42.3	F

Main Results for each time segment

07:45 - 08:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	71	1350	696	0.102	70	0.1	5.748	A
	2 - Purbrook Way (E)	899	580	1833	0.491	895	1.0	3.825	A
	3 - A3(M) on-slip		613						
	4 - Purbrook Way (W)	1411	29	2273	0.621	1405	1.6	4.117	A
2 - Western roundabout	1 - Purbrook Way (E)	585	4	1779	0.329	583	0.5	3.004	A
	2 - A3(M) off-slip	667	587	1768	0.377	665	0.6	3.255	A
	3 - Purbrook Way (W)	1145	287	1731	0.662	1137	1.9	5.990	A

08:00 - 08:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	85	1617	528	0.160	84	0.2	8.107	A
	2 - Purbrook Way (E)	1073	694	1740	0.617	1071	1.6	5.362	A
	3 - A3(M) on-slip		734						
	4 - Purbrook Way (W)	1687	35	2269	0.744	1682	2.8	6.086	A
2 - Western roundabout	1 - Purbrook Way (E)	700	5	1778	0.393	699	0.6	3.334	A
	2 - A3(M) off-slip	796	704	1675	0.475	795	0.9	4.085	A
	3 - Purbrook Way (W)	1367	343	1688	0.810	1359	4.0	10.668	B

08:15 - 08:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	103	1894	353	0.293	103	0.4	14.341	B
	2 - Purbrook Way (E)	1315	815	1642	0.801	1306	3.8	10.448	B
	3 - A3(M) on-slip		894						

	4 - Purbrook Way (W)	1985	43	2263	0.877	1970	6.5	11.761	B
2 - Western roundabout	1 - Purbrook Way (E)	852	6	1778	0.480	851	0.9	3.880	A
	2 - A3(M) off-slip	976	858	1554	0.628	972	1.7	6.156	A
	3 - Purbrook Way (W)	1675	419	1630	1.027	1583	26.9	45.328	E

08:30 - 08:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	103	1934	328	0.316	103	0.5	16.029	C
	2 - Purbrook Way (E)	1315	831	1628	0.807	1314	4.0	11.376	B
	3 - A3(M) on-slip		900						
	4 - Purbrook Way (W)	2016	43	2262	0.891	2012	7.5	13.998	B
2 - Western roundabout	1 - Purbrook Way (E)	858	6	1778	0.483	858	0.9	3.914	A
	2 - A3(M) off-slip	976	864	1549	0.630	975	1.7	6.274	A
	3 - Purbrook Way (W)	1675	421	1629	1.028	1613	42.3	85.616	F

08:45 - 09:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	85	1785	422	0.200	85	0.3	10.730	B
	2 - Purbrook Way (E)	1073	764	1683	0.638	1082	1.8	6.080	A
	3 - A3(M) on-slip		743						
	4 - Purbrook Way (W)	1846	35	2268	0.814	1857	4.6	8.994	A
2 - Western roundabout	1 - Purbrook Way (E)	709	6	1778	0.399	710	0.7	3.375	A
	2 - A3(M) off-slip	796	716	1667	0.478	800	0.9	4.166	A
	3 - Purbrook Way (W)	1367	345	1687	0.811	1518	4.7	34.821	D

09:00 - 09:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	71	1387	673	0.105	71	0.1	5.987	A
	2 - Purbrook Way (E)	899	595	1820	0.494	902	1.0	3.936	A
	3 - A3(M) on-slip		618						
	4 - Purbrook Way (W)	1431	29	2273	0.630	1443	1.7	4.394	A
2 - Western roundabout	1 - Purbrook Way (E)	590	5	1779	0.332	590	0.5	3.030	A

	2 - A3(M) off-slip	667	595	1762	0.379	668	0.6	3.294	A
	3 - Purbrook Way (W)	1145	288	1730	0.662	1156	2.0	6.391	A

2020 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	7.34	A
2	Western roundabout	Standard Roundabout		1, 2, 3	8.63	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	10	2 - Western roundabout - 3 - Purbrook Way (W)

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	2020 + devt	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	126	100.000
	2 - Purbrook Way (E)		✓	1109	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	775	100.000
	3 - Purbrook Way (W)		✓	1262	100.000

Origin-Destination Data

1 - Eastern (B&Q) roundabout

Demand (Veh/hr)

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	72	17	37
	2 - Purbrook Way (E)	55	0	384	670
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	95	930	539	15

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	3	0	708
	2 - A3(M) off-slip	357	0	418
	3 - Purbrook Way (W)	1257	0	5

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	8	0	3
	2 - Purbrook Way (E)	2	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	5	4	4	7

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.27	9.68	0.4	A
	2 - Purbrook Way (E)	0.70	6.81	2.3	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.79	7.50	3.6	A
2 - Western roundabout	1 - Purbrook Way (E)	0.45	3.66	0.8	A
	2 - A3(M) off-slip	0.53	4.84	1.1	A
	3 - Purbrook Way (W)	0.84	13.79	5.1	B

Main Results for each time segment

07:45 - 08:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	95	1125	857	0.111	94	0.1	4.716	A
	2 - Purbrook Way (E)	835	460	1928	0.433	832	0.8	3.275	A
	3 - A3(M) on-slip		583						
	4 - Purbrook Way (W)	1202	41	2257	0.532	1197	1.1	3.382	A
2 - Western roundabout	1 - Purbrook Way (E)	542	4	1779	0.305	540	0.4	2.902	A
	2 - A3(M) off-slip	583	544	1801	0.324	582	0.5	2.953	A
	3 - Purbrook Way (W)	950	270	1743	0.545	945	1.2	4.486	A

08:00 - 08:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	1349	711	0.159	113	0.2	6.014	A
	2 - Purbrook Way (E)	997	552	1852	0.538	995	1.2	4.192	A
	3 - A3(M) on-slip		698						
	4 - Purbrook Way (W)	1438	49	2251	0.639	1436	1.7	4.401	A
2 - Western roundabout	1 - Purbrook Way (E)	649	4	1779	0.365	648	0.6	3.182	A
	2 - A3(M) off-slip	697	653	1715	0.406	696	0.7	3.530	A
	3 - Purbrook Way (W)	1135	323	1703	0.666	1131	2.0	6.264	A

08:15 - 08:30

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	139	1641	521	0.266	138	0.4	9.372	A
	2 - Purbrook Way (E)	1221	672	1754	0.696	1217	2.2	6.643	A
	3 - A3(M) on-slip		853						
	4 - Purbrook Way (W)	1753	60	2243	0.782	1746	3.5	7.150	A
2 - Western roundabout	1 - Purbrook Way (E)	793	5	1778	0.446	792	0.8	3.647	A
	2 - A3(M) off-slip	853	797	1600	0.533	851	1.1	4.796	A
	3 - Purbrook Way (W)	1389	396	1648	0.843	1378	4.9	12.777	B

08:30 - 08:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	139	1658	510	0.272	139	0.4	9.681	A
	2 - Purbrook Way (E)	1221	678	1749	0.698	1221	2.3	6.812	A
	3 - A3(M) on-slip		856						
	4 - Purbrook Way (W)	1765	61	2243	0.787	1764	3.6	7.505	A
2 - Western roundabout	1 - Purbrook Way (E)	796	6	1778	0.448	796	0.8	3.663	A
	2 - A3(M) off-slip	853	801	1597	0.534	853	1.1	4.838	A
	3 - Purbrook Way (W)	1389	396	1647	0.843	1389	5.1	13.792	B

08:45 - 09:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	1374	695	0.163	114	0.2	6.197	A
	2 - Purbrook Way (E)	997	562	1845	0.540	1001	1.2	4.290	A
	3 - A3(M) on-slip		702						
	4 - Purbrook Way (W)	1455	50	2251	0.646	1462	1.9	4.601	A
2 - Western roundabout	1 - Purbrook Way (E)	653	5	1779	0.367	654	0.6	3.204	A
	2 - A3(M) off-slip	697	658	1710	0.407	698	0.7	3.563	A
	3 - Purbrook Way (W)	1135	325	1702	0.667	1147	2.0	6.622	A

09:00 - 09:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	95	1141	847	0.112	95	0.1	4.790	A
	2 - Purbrook Way (E)	835	467	1923	0.434	837	0.8	3.321	A
	3 - A3(M) on-slip		586						

	4 - Purbrook Way (W)	1211	41	2257	0.536	1214	1.2	3.460	A
2 - Western roundabout	**1 - Purbrook Way (E)**	545	4	1779	0.307	546	0.4	2.919	A
	2 - A3(M) off-slip	583	550	1796	0.325	584	0.5	2.974	A
	3 - Purbrook Way (W)	950	271	1742	0.545	953	1.2	4.581	A

2025 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	14.11	B
2	Western roundabout	Standard Roundabout		1, 2, 3	48.33	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	2 - Western roundabout - 3 - Purbrook Way (W)

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	2025 + devt	AM	ONE HOUR	07:45	09:15	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	

2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	132	100.000
	2 - Purbrook Way (E)		✓	1202	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	887	100.000
	3 - Purbrook Way (W)		✓	1535	100.000

Origin-Destination Data

1 - Eastern (B&Q) roundabout

Demand (Veh/hr)

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	76	18	38
	2 - Purbrook Way (E)	57	0	410	735
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	99	1040	715	16

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	**2 - A3(M) off-slip**	**3 - Purbrook Way (W)**
From	**1 - Purbrook Way (E)**	3	0	774
	2 - A3(M) off-slip	380	0	507
	3 - Purbrook Way (W)	1529	0	6

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	9	0	3
	2 - Purbrook Way (E)	2	0	1	3
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	6	4	3	6

Heavy Vehicle Percentages

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	3
	2 - A3(M) off-slip	4	0	1
	3 - Purbrook Way (W)	3	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.42	17.55	0.7	C
	2 - Purbrook Way (E)	0.82	12.24	4.4	B
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.90	15.04	8.0	C
2 - Western roundabout	1 - Purbrook Way (E)	0.49	3.96	0.9	A
	2 - A3(M) off-slip	0.63	6.38	1.7	A
	3 - Purbrook Way (W)	1.04	95.23	48.3	F

Main Results for each time segment

07:45 - 08:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	99	1341	716	0.139	99	0.2	5.827	A
	2 - Purbrook Way (E)	905	596	1821	0.497	901	1.0	3.897	A
	3 - A3(M) on-slip		634						
	4 - Purbrook Way (W)	1423	43	2264	0.629	1416	1.7	4.216	A
2 - Western roundabout	1 - Purbrook Way (E)	592	4	1779	0.333	590	0.5	3.023	A
	2 - A3(M) off-slip	668	594	1762	0.379	665	0.6	3.274	A
	3 - Purbrook Way (W)	1156	287	1730	0.668	1148	2.0	6.099	A

08:00 - 08:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	1606	546	0.217	118	0.3	8.412	A
	2 - Purbrook Way (E)	1081	713	1726	0.626	1078	1.6	5.534	A
	3 - A3(M) on-slip		759						

	4 - Purbrook Way (W)	1700	51	2257	0.753	1695	3.0	6.344	A
2 - Western roundabout	1 - Purbrook Way (E)	708	5	1778	0.398	708	0.7	3.360	A
	2 - A3(M) off-slip	797	713	1669	0.478	796	0.9	4.120	A
	3 - Purbrook Way (W)	1380	344	1687	0.818	1371	4.2	11.069	B

08:15 - 08:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	1871	374	0.388	144	0.6	15.532	C
	2 - Purbrook Way (E)	1323	833	1628	0.813	1314	4.1	11.137	B
	3 - A3(M) on-slip		924						
	4 - Purbrook Way (W)	1992	62	2249	0.886	1976	6.9	12.513	B
2 - Western roundabout	1 - Purbrook Way (E)	862	6	1778	0.485	861	0.9	3.923	A
	2 - A3(M) off-slip	977	867	1546	0.632	974	1.7	6.250	A
	3 - Purbrook Way (W)	1690	420	1629	1.037	1588	29.7	48.725	E

08:30 - 08:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	145	1910	350	0.416	145	0.7	17.550	C
	2 - Purbrook Way (E)	1323	850	1614	0.820	1322	4.4	12.237	B
	3 - A3(M) on-slip		930						
	4 - Purbrook Way (W)	2021	63	2248	0.899	2016	8.0	15.037	C
2 - Western roundabout	1 - Purbrook Way (E)	868	6	1778	0.488	868	0.9	3.958	A
	2 - A3(M) off-slip	977	874	1541	0.634	976	1.7	6.377	A
	3 - Purbrook Way (W)	1690	422	1628	1.038	1616	48.3	95.234	F

08:45 - 09:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	1793	425	0.279	120	0.4	11.843	B
	2 - Purbrook Way (E)	1081	791	1662	0.650	1090	1.9	6.402	A
	3 - A3(M) on-slip		769						
	4 - Purbrook Way (W)	1882	52	2257	0.834	1893	5.3	10.179	B
2 - Western roundabout	1 - Purbrook Way (E)	718	6	1778	0.404	719	0.7	3.405	A

	2 - A3(M) off-slip	797	725	1659	0.481	801	0.9	4.208	A
	3 - Purbrook Way (W)	1380	346	1686	0.818	1553	5.1	44.945	E

09:00 - 09:15

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	99	1381	690	0.144	100	0.2	6.114	A
	2 - Purbrook Way (E)	905	613	1807	0.501	908	1.0	4.023	A
	3 - A3(M) on-slip		640						
	4 - Purbrook Way (W)	1445	43	2264	0.638	1459	1.8	4.547	A
2 - Western roundabout	**1 - Purbrook Way (E)**	597	5	1779	0.336	598	0.5	3.052	A
	2 - A3(M) off-slip	668	603	1756	0.380	669	0.6	3.317	A
	3 - Purbrook Way (W)	1156	289	1729	0.668	1168	2.1	6.549	A

2016 observed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	4.79	A
2	Western roundabout	Standard Roundabout		1, 2, 3	5.90	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	16	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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	2016 observed	PM	ONE HOUR	16:15	17:45	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	142	100.000
	2 - Purbrook Way (E)		✓	932	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	1125	100.000
	3 - Purbrook Way (W)		✓	872	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	71	31	40
	2 - Purbrook Way (E)	70	6	351	505
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	53	1105	280	10

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	**2 - A3(M) off-slip**	**3 - Purbrook Way (W)**
From	**1 - Purbrook Way (E)**	2	0	547
	2 - A3(M) off-slip	584	0	541
	3 - Purbrook Way (W)	868	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.24	7.43	0.3	A
	2 - Purbrook Way (E)	0.51	3.68	1.0	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.70	5.26	2.3	A
2 - Western roundabout	1 - Purbrook Way (E)	0.34	3.04	0.5	A
	2 - A3(M) off-slip	0.70	6.62	2.3	A
	3 - Purbrook Way (W)	0.64	6.80	1.8	A

Main Results for each time segment

16:15 - 16:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	107	1047	973	0.110	106	0.1	4.152	A
	2 - Purbrook Way (E)	702	270	2107	0.333	700	0.5	2.555	A
	3 - A3(M) on-slip		474						
	4 - Purbrook Way (W)	1086	57	2298	0.472	1082	0.9	2.951	A
2 - Western roundabout	1 - Purbrook Way (E)	415	3	1793	0.231	414	0.3	2.607	A
	2 - A3(M) off-slip	847	417	1939	0.437	844	0.8	3.277	A
	3 - Purbrook Way (W)	656	440	1641	0.400	654	0.7	3.638	A

16:30 - 16:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	128	1255	833	0.153	127	0.2	5.100	A
	2 - Purbrook Way (E)	838	324	2064	0.406	837	0.7	2.933	A
	3 - A3(M) on-slip		567						
	4 - Purbrook Way (W)	1299	68	2290	0.567	1298	1.3	3.622	A
2 - Western roundabout	1 - Purbrook Way (E)	497	4	1793	0.277	496	0.4	2.776	A
	2 - A3(M) off-slip	1011	500	1873	0.540	1010	1.2	4.164	A
	3 - Purbrook Way (W)	784	526	1577	0.497	783	1.0	4.524	A

16:45 - 17:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	156	1533	647	0.242	156	0.3	7.326	A
	2 - Purbrook Way (E)	1026	395	2007	0.511	1025	1.0	3.662	A
	3 - A3(M) on-slip		694						
	4 - Purbrook Way (W)	1588	84	2278	0.697	1585	2.3	5.163	A
2 - Western roundabout	1 - Purbrook Way (E)	608	4	1792	0.339	607	0.5	3.036	A
	2 - A3(M) off-slip	1239	612	1783	0.695	1234	2.2	6.510	A
	3 - Purbrook Way (W)	960	643	1491	0.644	957	1.8	6.705	A

17:00 - 17:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	156	1542	641	0.244	156	0.3	7.427	A
	2 - Purbrook Way (E)	1026	397	2005	0.512	1026	1.0	3.677	A
	3 - A3(M) on-slip		695						
	4 - Purbrook Way (W)	1594	84	2278	0.700	1593	2.3	5.258	A
2 - Western roundabout	1 - Purbrook Way (E)	609	4	1792	0.340	609	0.5	3.041	A
	2 - A3(M) off-slip	1239	613	1782	0.695	1239	2.3	6.620	A
	3 - Purbrook Way (W)	960	645	1489	0.645	960	1.8	6.802	A

17:15 - 17:30

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	128	1268	825	0.155	128	0.2	5.174	A
	2 - Purbrook Way (E)	838	327	2062	0.406	839	0.7	2.948	A
	3 - A3(M) on-slip		568						
	4 - Purbrook Way (W)	1307	68	2290	0.571	1310	1.3	3.690	A
2 - Western roundabout	1 - Purbrook Way (E)	498	4	1793	0.278	499	0.4	2.782	A
	2 - A3(M) off-slip	1011	502	1871	0.541	1016	1.2	4.229	A
	3 - Purbrook Way (W)	784	529	1575	0.498	787	1.0	4.587	A

17:30 - 17:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	107	1058	966	0.111	107	0.1	4.196	A
	2 - Purbrook Way (E)	702	273	2105	0.333	702	0.5	2.569	A
	3 - A3(M) on-slip		476						
	4 - Purbrook Way (W)	1092	57	2298	0.475	1094	0.9	2.994	A
2 - Western roundabout	1 - Purbrook Way (E)	417	3	1793	0.232	417	0.3	2.615	A
	2 - A3(M) off-slip	847	420	1937	0.437	849	0.8	3.315	A
	3 - Purbrook Way (W)	656	442	1639	0.401	658	0.7	3.675	A

2020 base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	6.18	A
2	Western roundabout	Standard Roundabout		1, 2, 3	8.24	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold

Left	Normal/unknown	10	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D7	2020 base	PM	ONE HOUR	16:15	17:45	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	150	100.000
	2 - Purbrook Way (E)		✓	977	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	1252	100.000
	3 - Purbrook Way (W)		✓	970	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	75	33	42
	2 - Purbrook Way (E)	73	6	368	530
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	56	1160	294	10

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	609
	2 - A3(M) off-slip	650	0	602
	3 - Purbrook Way (W)	966	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.31	9.98	0.5	A
	2 - Purbrook Way (E)	0.55	4.01	1.2	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.78	7.14	3.5	A
2 - Western roundabout	1 - Purbrook Way (E)	0.36	3.12	0.6	A
	2 - A3(M) off-slip	0.78	9.46	3.5	A
	3 - Purbrook Way (W)	0.74	9.76	2.8	A

Main Results for each time segment

16:15 - 16:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	1163	895	0.126	112	0.1	4.596	A
	2 - Purbrook Way (E)	736	297	2085	0.353	733	0.5	2.657	A
	3 - A3(M) on-slip		497						
	4 - Purbrook Way (W)	1207	59	2297	0.526	1203	1.1	3.277	A
2 - Western roundabout	1 - Purbrook Way (E)	436	3	1794	0.243	434	0.3	2.646	A
	2 - A3(M) off-slip	943	437	1923	0.490	939	1.0	3.645	A

	3 - Purbrook Way (W)	730	489	1605	0.455	727	0.8	4.085	A

16:30 - 16:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	135	1395	740	0.182	135	0.2	5.946	A
	2 - Purbrook Way (E)	878	356	2038	0.431	877	0.8	3.100	A
	3 - A3(M) on-slip		594						
	4 - Purbrook Way (W)	1445	71	2288	0.632	1442	1.7	4.247	A
2 - Western roundabout	1 - Purbrook Way (E)	521	4	1793	0.291	521	0.4	2.830	A
	2 - A3(M) off-slip	1126	525	1853	0.607	1123	1.5	4.917	A
	3 - Purbrook Way (W)	872	585	1534	0.569	870	1.3	5.408	A

16:45 - 17:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	165	1699	536	0.308	164	0.4	9.680	A
	2 - Purbrook Way (E)	1076	433	1976	0.544	1074	1.2	3.985	A
	3 - A3(M) on-slip		727						
	4 - Purbrook Way (W)	1763	87	2275	0.775	1757	3.3	6.857	A
2 - Western roundabout	1 - Purbrook Way (E)	638	4	1793	0.356	637	0.5	3.115	A
	2 - A3(M) off-slip	1378	642	1759	0.784	1371	3.5	9.090	A
	3 - Purbrook Way (W)	1068	714	1439	0.742	1062	2.8	9.415	A

17:00 - 17:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	165	1714	526	0.314	165	0.5	9.984	A
	2 - Purbrook Way (E)	1076	437	1973	0.545	1076	1.2	4.011	A
	3 - A3(M) on-slip		728						
	4 - Purbrook Way (W)	1773	87	2275	0.779	1772	3.5	7.143	A
2 - Western roundabout	1 - Purbrook Way (E)	639	4	1793	0.357	639	0.6	3.120	A
	2 - A3(M) off-slip	1378	644	1758	0.784	1378	3.5	9.462	A
	3 - Purbrook Way (W)	1068	718	1436	0.744	1068	2.8	9.761	A

17:15 - 17:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	135	1416	725	0.186	136	0.2	6.114	A
	2 - Purbrook Way (E)	878	361	2034	0.432	880	0.8	3.125	A
	3 - A3(M) on-slip		596						
	4 - Purbrook Way (W)	1458	71	2287	0.637	1464	1.8	4.408	A
2 - Western roundabout	1 - Purbrook Way (E)	523	4	1793	0.292	524	0.4	2.838	A
	2 - A3(M) off-slip	1126	527	1851	0.608	1133	1.6	5.073	A
	3 - Purbrook Way (W)	872	590	1530	0.570	878	1.3	5.572	A

17:30 - 17:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	113	1178	885	0.128	113	0.1	4.665	A
	2 - Purbrook Way (E)	736	300	2083	0.353	736	0.5	2.675	A
	3 - A3(M) on-slip		499						
	4 - Purbrook Way (W)	1216	60	2296	0.529	1218	1.1	3.348	A
2 - Western roundabout	1 - Purbrook Way (E)	438	3	1794	0.244	438	0.3	2.655	A
	2 - A3(M) off-slip	943	441	1920	0.491	945	1.0	3.703	A
	3 - Purbrook Way (W)	730	492	1602	0.456	732	0.8	4.147	A

2025 base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	8.17	A

2	Western roundabout	Standard Roundabout		1, 2, 3	15.59	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	2 - Western roundabout - 2 - A3(M) off-slip

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)
D8	2025 base	PM	ONE HOUR	16:15	17:45	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	158	100.000
	2 - Purbrook Way (E)		✓	1084	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	1392	100.000
	3 - Purbrook Way (W)		✓	1086	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	79	34	45
	2 - Purbrook Way (E)	78	7	390	609
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	59	1259	398	11

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	657
	2 - A3(M) off-slip	650	0	742
	3 - Purbrook Way (W)	1082	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.39	13.49	0.6	B
	2 - Purbrook Way (E)	0.63	5.15	1.7	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.84	9.59	4.9	A
2 - Western roundabout	1 - Purbrook Way (E)	0.41	3.39	0.7	A
	2 - A3(M) off-slip	0.91	22.18	8.9	C
	3 - Purbrook Way (W)	0.83	14.72	4.7	B

Main Results for each time segment

16:15 - 16:30

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	119	1250	837	0.142	118	0.2	5.005	A
	2 - Purbrook Way (E)	816	364	2031	0.402	813	0.7	2.951	A
	3 - A3(M) on-slip		563						
	4 - Purbrook Way (W)	1294	64	2294	0.564	1289	1.3	3.566	A
2 - Western roundabout	1 - Purbrook Way (E)	497	3	1794	0.277	496	0.4	2.771	A
	2 - A3(M) off-slip	1048	499	1873	0.560	1043	1.3	4.312	A
	3 - Purbrook Way (W)	818	489	1605	0.509	813	1.0	4.524	A

16:30 - 16:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	142	1499	670	0.212	142	0.3	6.811	A
	2 - Purbrook Way (E)	974	437	1973	0.494	973	1.0	3.597	A
	3 - A3(M) on-slip		673						
	4 - Purbrook Way (W)	1548	76	2284	0.678	1545	2.1	4.852	A
2 - Western roundabout	1 - Purbrook Way (E)	595	4	1793	0.332	595	0.5	3.003	A
	2 - A3(M) off-slip	1251	598	1793	0.698	1247	2.3	6.546	A
	3 - Purbrook Way (W)	976	584	1534	0.636	974	1.7	6.386	A

16:45 - 17:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	174	1814	458	0.379	173	0.6	12.537	B
	2 - Purbrook Way (E)	1194	529	1898	0.629	1191	1.7	5.066	A
	3 - A3(M) on-slip		823						
	4 - Purbrook Way (W)	1880	93	2271	0.828	1870	4.6	8.773	A
2 - Western roundabout	1 - Purbrook Way (E)	728	4	1793	0.406	727	0.7	3.376	A
	2 - A3(M) off-slip	1533	731	1687	0.909	1509	8.1	18.303	C
	3 - Purbrook Way (W)	1196	707	1444	0.828	1185	4.4	13.373	B

17:00 - 17:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	174	1841	441	0.395	174	0.6	13.494	B
	2 - Purbrook Way (E)	1194	536	1893	0.631	1193	1.7	5.145	A
	3 - A3(M) on-slip		826						

	4 - Purbrook Way (W)	1899	94	2271	0.836	1898	4.9	9.592	A
2 - Western roundabout	**1 - Purbrook Way (E)**	730	4	1793	0.407	730	0.7	3.385	A
	2 - A3(M) off-slip	1533	734	1685	0.910	1529	8.9	22.183	C
	3 - Purbrook Way (W)	1196	716	1437	0.832	1195	4.7	14.718	B

17:15 - 17:30

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	142	1539	643	0.221	143	0.3	7.228	A
	2 - Purbrook Way (E)	974	448	1964	0.496	977	1.0	3.657	A
	3 - A3(M) on-slip		677						
	4 - Purbrook Way (W)	1577	77	2284	0.690	1587	2.3	5.241	A
2 - Western roundabout	**1 - Purbrook Way (E)**	598	4	1793	0.334	599	0.5	3.017	A
	2 - A3(M) off-slip	1251	603	1790	0.699	1277	2.4	7.370	A
	3 - Purbrook Way (W)	976	598	1524	0.641	988	1.8	6.855	A

17:30 - 17:45

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	119	1270	824	0.144	119	0.2	5.114	A
	2 - Purbrook Way (E)	816	370	2026	0.403	817	0.7	2.982	A
	3 - A3(M) on-slip		566						
	4 - Purbrook Way (W)	1306	64	2294	0.569	1309	1.3	3.673	A
2 - Western roundabout	**1 - Purbrook Way (E)**	500	3	1794	0.279	500	0.4	2.783	A
	2 - A3(M) off-slip	1048	503	1869	0.561	1052	1.3	4.432	A
	3 - Purbrook Way (W)	818	493	1602	0.510	821	1.1	4.627	A

2020 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.

Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	6.06	A
2	Western roundabout	Standard Roundabout		1, 2, 3	7.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	10	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D9	2020 + devt	PM	ONE HOUR	16:15	17:45	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	238	100.000
	2 - Purbrook Way (E)		✓	991	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	1183	100.000
	3 - Purbrook Way (W)		✓	939	100.000

Origin-Destination Data

1 - Eastern (B&Q) roundabout

Demand (Veh/hr)

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	111	41	86
	2 - Purbrook Way (E)	107	6	365	513
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	107	1137	292	10

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	601
	2 - A3(M) off-slip	615	0	568
	3 - Purbrook Way (W)	935	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.43	10.39	0.7	B
	2 - Purbrook Way (E)	0.56	4.21	1.3	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.76	6.59	3.1	A
2 - Western roundabout	1 - Purbrook Way (E)	0.37	3.20	0.6	A
	2 - A3(M) off-slip	0.75	8.30	3.0	A
	3 - Purbrook Way (W)	0.71	8.36	2.4	A

Main Results for each time segment

16:15 - 16:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	179	1080	951	0.188	178	0.2	4.652	A
	2 - Purbrook Way (E)	746	321	2068	0.361	744	0.6	2.714	A
	3 - A3(M) on-slip		542						
	4 - Purbrook Way (W)	1159	85	2278	0.509	1155	1.0	3.193	A
2 - Western roundabout	1 - Purbrook Way (E)	455	3	1794	0.254	453	0.3	2.684	A
	2 - A3(M) off-slip	891	456	1908	0.467	887	0.9	3.516	A
	3 - Purbrook Way (W)	707	463	1624	0.435	704	0.8	3.900	A

16:30 - 16:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	214	1295	807	0.265	213	0.4	6.062	A
	2 - Purbrook Way (E)	891	384	2017	0.442	890	0.8	3.192	A
	3 - A3(M) on-slip		648						
	4 - Purbrook Way (W)	1387	101	2265	0.612	1385	1.6	4.080	A
2 - Western roundabout	1 - Purbrook Way (E)	544	4	1793	0.304	544	0.4	2.881	A
	2 - A3(M) off-slip	1063	547	1835	0.580	1062	1.4	4.643	A
	3 - Purbrook Way (W)	844	554	1557	0.542	843	1.2	5.029	A

16:45 - 17:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	262	1579	616	0.425	261	0.7	10.080	B
	2 - Purbrook Way (E)	1091	469	1949	0.560	1089	1.3	4.178	A
	3 - A3(M) on-slip		793						
	4 - Purbrook Way (W)	1694	124	2248	0.754	1689	3.0	6.376	A
2 - Western roundabout	1 - Purbrook Way (E)	666	4	1793	0.371	665	0.6	3.191	A
	2 - A3(M) off-slip	1303	670	1737	0.750	1296	2.9	8.060	A

	3 - Purbrook Way (W)	1034	676	1466	0.705	1029	2.3	8.152	A

17:00 - 17:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	262	1590	608	0.431	262	0.7	10.392	B
	2 - Purbrook Way (E)	1091	472	1946	0.561	1091	1.3	4.209	A
	3 - A3(M) on-slip		795						
	4 - Purbrook Way (W)	1702	124	2248	0.757	1702	3.1	6.586	A
2 - Western roundabout	1 - Purbrook Way (E)	667	4	1793	0.372	667	0.6	3.198	A
	2 - A3(M) off-slip	1303	672	1735	0.751	1302	3.0	8.301	A
	3 - Purbrook Way (W)	1034	679	1464	0.706	1034	2.4	8.356	A

17:15 - 17:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	214	1312	795	0.269	215	0.4	6.225	A
	2 - Purbrook Way (E)	891	389	2013	0.443	893	0.8	3.218	A
	3 - A3(M) on-slip		651						
	4 - Purbrook Way (W)	1398	102	2265	0.617	1403	1.6	4.205	A
2 - Western roundabout	1 - Purbrook Way (E)	547	4	1793	0.305	547	0.4	2.892	A
	2 - A3(M) off-slip	1063	551	1832	0.580	1070	1.4	4.758	A
	3 - Purbrook Way (W)	844	558	1554	0.543	849	1.2	5.139	A

17:30 - 17:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	179	1093	942	0.190	180	0.2	4.725	A
	2 - Purbrook Way (E)	746	324	2065	0.361	747	0.6	2.735	A
	3 - A3(M) on-slip		544						
	4 - Purbrook Way (W)	1167	85	2278	0.512	1169	1.1	3.254	A
2 - Western roundabout	1 - Purbrook Way (E)	457	3	1794	0.255	457	0.3	2.694	A
	2 - A3(M) off-slip	891	460	1904	0.468	893	0.9	3.567	A
	3 - Purbrook Way (W)	707	466	1622	0.436	709	0.8	3.950	A

2025 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	9.84	A
2	Western roundabout	Standard Roundabout		1, 2, 3	17.60	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	1	2 - Western roundabout - 2 - A3(M) off-slip

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)
D10	2025 + devt	PM	ONE HOUR	16:15	17:45	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	4 - Purbrook Way (W)	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	1 - Purbrook Way (E)	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	246	100.000
	2 - Purbrook Way (E)		✓	1098	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			

2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	1394	100.000
	3 - Purbrook Way (W)		✓	1110	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	115	42	89
	2 - Purbrook Way (E)	112	7	387	592
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	110	1236	396	11

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	2	0	684
	2 - A3(M) off-slip	652	0	742
	3 - Purbrook Way (W)	1106	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	1	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	2	1	0

Heavy Vehicle Percentages

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	50	0	2
	2 - A3(M) off-slip	0	0	1
	3 - Purbrook Way (W)	2	0	25

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.59	18.95	1.4	C
	2 - Purbrook Way (E)	0.65	5.61	1.9	A

	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.86	11.23	5.8	B
2 - Western roundabout	1 - Purbrook Way (E)	0.42	3.48	0.7	A
	2 - A3(M) off-slip	0.92	25.58	10.2	D
	3 - Purbrook Way (W)	0.85	16.50	5.4	C

Main Results for each time segment

16:15 - 16:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	1232	849	0.218	184	0.3	5.403	A
	2 - Purbrook Way (E)	827	402	2002	0.413	824	0.7	3.048	A
	3 - A3(M) on-slip		608						
	4 - Purbrook Way (W)	1314	89	2275	0.578	1309	1.4	3.703	A
2 - Western roundabout	1 - Purbrook Way (E)	517	3	1794	0.288	515	0.4	2.811	A
	2 - A3(M) off-slip	1049	518	1857	0.565	1044	1.3	4.401	A
	3 - Purbrook Way (W)	836	490	1604	0.521	831	1.1	4.633	A

16:30 - 16:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	1477	685	0.323	220	0.5	7.734	A
	2 - Purbrook Way (E)	987	482	1938	0.509	986	1.0	3.775	A
	3 - A3(M) on-slip		728						
	4 - Purbrook Way (W)	1572	107	2262	0.695	1569	2.2	5.167	A
2 - Western roundabout	1 - Purbrook Way (E)	618	4	1794	0.345	618	0.5	3.060	A
	2 - A3(M) off-slip	1253	622	1775	0.706	1249	2.3	6.791	A
	3 - Purbrook Way (W)	998	586	1533	0.651	995	1.8	6.650	A

16:45 - 17:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	1783	479	0.565	268	1.2	16.781	C
	2 - Purbrook Way (E)	1209	582	1857	0.651	1206	1.8	5.498	A
	3 - A3(M) on-slip		889						

	4 - Purbrook Way (W)	1907	131	2243	0.850	1894	5.3	9.986	A
2 - Western roundabout	1 - Purbrook Way (E)	756	4	1793	0.421	755	0.7	3.468	A
	2 - A3(M) off-slip	1535	759	1665	0.922	1508	9.1	20.238	C
	3 - Purbrook Way (W)	1222	707	1443	0.847	1209	5.0	14.653	B

17:00 - 17:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	271	1813	459	0.590	270	1.4	18.955	C
	2 - Purbrook Way (E)	1209	591	1850	0.653	1209	1.9	5.610	A
	3 - A3(M) on-slip		893						
	4 - Purbrook Way (W)	1928	131	2243	0.860	1926	5.8	11.227	B
2 - Western roundabout	1 - Purbrook Way (E)	758	4	1793	0.423	758	0.7	3.479	A
	2 - A3(M) off-slip	1535	763	1662	0.924	1530	10.2	25.579	D
	3 - Purbrook Way (W)	1222	718	1436	0.851	1221	5.4	16.495	C

17:15 - 17:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	221	1523	654	0.338	225	0.5	8.452	A
	2 - Purbrook Way (E)	987	495	1927	0.512	990	1.1	3.856	A
	3 - A3(M) on-slip		733						
	4 - Purbrook Way (W)	1605	107	2261	0.710	1618	2.5	5.710	A
2 - Western roundabout	1 - Purbrook Way (E)	623	4	1793	0.347	623	0.5	3.078	A
	2 - A3(M) off-slip	1253	627	1770	0.708	1284	2.5	7.858	A
	3 - Purbrook Way (W)	998	602	1521	0.656	1012	1.9	7.246	A

17:30 - 17:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	185	1252	835	0.222	186	0.3	5.551	A
	2 - Purbrook Way (E)	827	408	1997	0.414	828	0.7	3.082	A
	3 - A3(M) on-slip		612						
	4 - Purbrook Way (W)	1326	90	2275	0.583	1331	1.4	3.828	A
2 - Western roundabout	1 - Purbrook Way (E)	520	3	1794	0.290	520	0.4	2.827	A

	2 - A3(M) off-slip	1049	523	1853	0.566	1054	1.3	4.532	A
	3 - Purbrook Way (W)	836	495	1601	0.522	839	1.1	4.748	A

2020 uplifted, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	4.72	A
2	Western roundabout	Standard Roundabout		1, 2, 3	3.92	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D11	2020 uplifted	SAT	ONE HOUR	11:30	13:00	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	1 - B&Q / site		✓	385	100.000
	2 - Purbrook Way (E)		✓	935	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	1 - Purbrook Way (E)	✓			
	2 - A3(M) off-slip		✓	817	100.000
	3 - Purbrook Way (W)		✓	727	100.000

Origin-Destination Data

1 - Eastern (B&Q) roundabout

Demand (Veh/hr)

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	185	104	96
	2 - Purbrook Way (E)	166	1	393	375
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	177	811	259	2

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	1	0	472
	2 - A3(M) off-slip	525	0	292
	3 - Purbrook Way (W)	723	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	1	0	0
	2 - Purbrook Way (E)	1	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	2	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.48	7.85	0.9	A
	2 - Purbrook Way (E)	0.53	4.02	1.1	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.62	4.29	1.6	A
2 - Western roundabout	1 - Purbrook Way (E)	0.29	2.79	0.4	A
	2 - A3(M) off-slip	0.48	3.73	0.9	A
	3 - Purbrook Way (W)	0.52	4.86	1.1	A

Main Results for each time segment

11:30 - 11:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	290	805	1134	0.256	288	0.3	4.250	A
	2 - Purbrook Way (E)	704	346	2057	0.342	702	0.5	2.654	A
	3 - A3(M) on-slip		480						
	4 - Purbrook Way (W)	940	125	2264	0.415	937	0.7	2.708	A
2 - Western roundabout	1 - Purbrook Way (E)	357	3	1815	0.197	356	0.2	2.467	A
	2 - A3(M) off-slip	615	359	1999	0.308	613	0.4	2.594	A
	3 - Purbrook Way (W)	547	395	1676	0.327	545	0.5	3.177	A

11:45 - 12:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	346	965	1028	0.337	345	0.5	5.272	A
	2 - Purbrook Way (E)	841	414	2001	0.420	840	0.7	3.097	A
	3 - A3(M) on-slip		575						
	4 - Purbrook Way (W)	1125	150	2244	0.501	1124	1.0	3.210	A
2 - Western roundabout	1 - Purbrook Way (E)	427	4	1814	0.235	427	0.3	2.594	A
	2 - A3(M) off-slip	734	431	1942	0.378	734	0.6	2.978	A
	3 - Purbrook Way (W)	654	472	1619	0.404	653	0.7	3.721	A

12:00 - 12:15

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	424	1181	885	0.479	422	0.9	7.752	A
	2 - Purbrook Way (E)	1029	507	1927	0.534	1028	1.1	3.995	A
	3 - A3(M) on-slip		703						
	4 - Purbrook Way (W)	1377	184	2218	0.621	1374	1.6	4.255	A
2 - Western roundabout	1 - Purbrook Way (E)	523	4	1814	0.288	522	0.4	2.787	A
	2 - A3(M) off-slip	900	527	1866	0.482	898	0.9	3.716	A
	3 - Purbrook Way (W)	800	578	1541	0.519	799	1.1	4.840	A

12:15 - 12:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	424	1185	882	0.480	424	0.9	7.850	A
	2 - Purbrook Way (E)	1029	508	1926	0.535	1029	1.1	4.015	A
	3 - A3(M) on-slip		705						
	4 - Purbrook Way (W)	1379	184	2218	0.622	1379	1.6	4.293	A
2 - Western roundabout	1 - Purbrook Way (E)	524	4	1814	0.289	524	0.4	2.789	A
	2 - A3(M) off-slip	900	528	1865	0.482	900	0.9	3.729	A
	3 - Purbrook Way (W)	800	579	1540	0.520	800	1.1	4.865	A

12:30 - 12:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	346	972	1024	0.338	348	0.5	5.339	A
	2 - Purbrook Way (E)	841	417	1999	0.420	842	0.7	3.114	A
	3 - A3(M) on-slip		577						
	4 - Purbrook Way (W)	1129	150	2244	0.503	1131	1.0	3.243	A
2 - Western roundabout	1 - Purbrook Way (E)	429	4	1814	0.236	429	0.3	2.598	A
	2 - A3(M) off-slip	734	433	1940	0.379	736	0.6	2.990	A
	3 - Purbrook Way (W)	654	474	1618	0.404	655	0.7	3.746	A

12:45 - 13:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	290	812	1129	0.257	291	0.3	4.296	A
	2 - Purbrook Way (E)	704	349	2054	0.343	705	0.5	2.668	A
	3 - A3(M) on-slip		482						

	4 - Purbrook Way (W)	944	126	2263	0.417	946	0.7	2.735	A
2 - Western roundabout	**1 - Purbrook Way (E)**	359	3	1815	0.198	359	0.2	2.472	A
	2 - A3(M) off-slip	615	362	1997	0.308	616	0.4	2.609	A
	3 - Purbrook Way (W)	547	396	1675	0.327	548	0.5	3.198	A

2020 base, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	4.72	A
2	Western roundabout	Standard Roundabout		1, 2, 3	3.92	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	17	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D12	2020 base	SAT	ONE HOUR	11:30	13:00	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	

2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	385	100.000
	2 - Purbrook Way (E)		✓	935	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	817	100.000
	3 - Purbrook Way (W)		✓	727	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	185	104	96
	2 - Purbrook Way (E)	166	1	393	375
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	177	811	259	2

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	**2 - A3(M) off-slip**	**3 - Purbrook Way (W)**
From	**1 - Purbrook Way (E)**	1	0	472
	2 - A3(M) off-slip	525	0	292
	3 - Purbrook Way (W)	723	0	4

Vehicle Mix

Heavy Vehicle Percentages

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	1	0	0
	2 - Purbrook Way (E)	1	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

Heavy Vehicle Percentages

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	2	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.48	7.85	0.9	A
	2 - Purbrook Way (E)	0.53	4.02	1.1	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.62	4.29	1.6	A
2 - Western roundabout	1 - Purbrook Way (E)	0.29	2.79	0.4	A
	2 - A3(M) off-slip	0.48	3.73	0.9	A
	3 - Purbrook Way (W)	0.52	4.86	1.1	A

Main Results for each time segment

11:30 - 11:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	290	805	1134	0.256	288	0.3	4.250	A
	2 - Purbrook Way (E)	704	346	2057	0.342	702	0.5	2.654	A
	3 - A3(M) on-slip		480						
	4 - Purbrook Way (W)	940	125	2264	0.415	937	0.7	2.708	A
2 - Western roundabout	1 - Purbrook Way (E)	357	3	1815	0.197	356	0.2	2.467	A
	2 - A3(M) off-slip	615	359	1999	0.308	613	0.4	2.594	A
	3 - Purbrook Way (W)	547	395	1676	0.327	545	0.5	3.177	A

11:45 - 12:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	346	965	1028	0.337	345	0.5	5.272	A
	2 - Purbrook Way (E)	841	414	2001	0.420	840	0.7	3.097	A
	3 - A3(M) on-slip		575						

	4 - Purbrook Way (W)	1125	150	2244	0.501	1124	1.0	3.210	A
2 - Western roundabout	1 - Purbrook Way (E)	427	4	1814	0.235	427	0.3	2.594	A
	2 - A3(M) off-slip	734	431	1942	0.378	734	0.6	2.978	A
	3 - Purbrook Way (W)	654	472	1619	0.404	653	0.7	3.721	A

12:00 - 12:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	424	1181	885	0.479	422	0.9	7.752	A
	2 - Purbrook Way (E)	1029	507	1927	0.534	1028	1.1	3.995	A
	3 - A3(M) on-slip		703						
	4 - Purbrook Way (W)	1377	184	2218	0.621	1374	1.6	4.255	A
2 - Western roundabout	1 - Purbrook Way (E)	523	4	1814	0.288	522	0.4	2.787	A
	2 - A3(M) off-slip	900	527	1866	0.482	898	0.9	3.716	A
	3 - Purbrook Way (W)	800	578	1541	0.519	799	1.1	4.840	A

12:15 - 12:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	424	1185	882	0.480	424	0.9	7.850	A
	2 - Purbrook Way (E)	1029	508	1926	0.535	1029	1.1	4.015	A
	3 - A3(M) on-slip		705						
	4 - Purbrook Way (W)	1379	184	2218	0.622	1379	1.6	4.293	A
2 - Western roundabout	1 - Purbrook Way (E)	524	4	1814	0.289	524	0.4	2.789	A
	2 - A3(M) off-slip	900	528	1865	0.482	900	0.9	3.729	A
	3 - Purbrook Way (W)	800	579	1540	0.520	800	1.1	4.865	A

12:30 - 12:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	346	972	1024	0.338	348	0.5	5.339	A
	2 - Purbrook Way (E)	841	417	1999	0.420	842	0.7	3.114	A
	3 - A3(M) on-slip		577						
	4 - Purbrook Way (W)	1129	150	2244	0.503	1131	1.0	3.243	A
2 - Western roundabout	1 - Purbrook Way (E)	429	4	1814	0.236	429	0.3	2.598	A

	2 - A3(M) off-slip	734	433	1940	0.379	736	0.6	2.990	A
	3 - Purbrook Way (W)	654	474	1618	0.404	655	0.7	3.746	A

12:45 - 13:00

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	290	812	1129	0.257	291	0.3	4.296	A
	2 - Purbrook Way (E)	704	349	2054	0.343	705	0.5	2.668	A
	3 - A3(M) on-slip		482						
	4 - Purbrook Way (W)	944	126	2263	0.417	946	0.7	2.735	A
2 - Western roundabout	**1 - Purbrook Way (E)**	359	3	1815	0.198	359	0.2	2.472	A
	2 - A3(M) off-slip	615	362	1997	0.308	616	0.4	2.609	A
	3 - Purbrook Way (W)	547	396	1675	0.327	548	0.5	3.198	A

2025 base, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	5.41	A
2	Western roundabout	Standard Roundabout		1, 2, 3	4.30	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	12	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)

D13	2025 base	SAT	ONE HOUR	11:30	13:00	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	410	100.000
	2 - Purbrook Way (E)		✓	995	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	870	100.000
	3 - Purbrook Way (W)		✓	774	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	197	111	102
	2 - Purbrook Way (E)	177	1	418	399
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	188	864	276	2

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	**2 - A3(M) off-slip**	**3 - Purbrook Way (W)**
From	**1 - Purbrook Way (E)**	1	0	503
	2 - A3(M) off-slip	559	0	311
	3 - Purbrook Way (W)	770	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	1	0	0
	2 - Purbrook Way (E)	1	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	2	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.54	9.47	1.2	A
	2 - Purbrook Way (E)	0.58	4.48	1.4	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.67	4.87	2.0	A
2 - Western roundabout	1 - Purbrook Way (E)	0.31	2.86	0.4	A
	2 - A3(M) off-slip	0.52	4.09	1.1	A
	3 - Purbrook Way (W)	0.56	5.45	1.3	A

Main Results for each time segment

11:30 - 11:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	309	857	1099	0.281	307	0.4	4.536	A
	2 - Purbrook Way (E)	749	368	2039	0.367	747	0.6	2.782	A
	3 - A3(M) on-slip		511						
	4 - Purbrook Way (W)	1001	134	2257	0.443	998	0.8	2.851	A
2 - Western roundabout	1 - Purbrook Way (E)	380	3	1815	0.209	379	0.3	2.505	A
	2 - A3(M) off-slip	655	382	1981	0.331	653	0.5	2.707	A
	3 - Purbrook Way (W)	583	420	1658	0.352	581	0.5	3.335	A

11:45 - 12:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	369	1028	986	0.374	368	0.6	5.814	A
	2 - Purbrook Way (E)	894	441	1980	0.452	894	0.8	3.310	A
	3 - A3(M) on-slip		611						
	4 - Purbrook Way (W)	1198	160	2237	0.536	1196	1.1	3.456	A
2 - Western roundabout	1 - Purbrook Way (E)	454	4	1814	0.250	454	0.3	2.646	A
	2 - A3(M) off-slip	782	458	1921	0.407	781	0.7	3.158	A
	3 - Purbrook Way (W)	696	503	1597	0.436	695	0.8	3.988	A

12:00 - 12:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	451	1257	835	0.541	449	1.2	9.286	A
	2 - Purbrook Way (E)	1096	539	1901	0.576	1093	1.3	4.445	A
	3 - A3(M) on-slip		748						
	4 - Purbrook Way (W)	1466	196	2208	0.664	1462	1.9	4.808	A
2 - Western roundabout	1 - Purbrook Way (E)	556	4	1814	0.306	555	0.4	2.860	A
	2 - A3(M) off-slip	958	560	1840	0.521	956	1.1	4.068	A
	3 - Purbrook Way (W)	852	616	1513	0.563	850	1.3	5.412	A

12:15 - 12:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	451	1262	831	0.543	451	1.2	9.475	A
	2 - Purbrook Way (E)	1096	541	1899	0.577	1095	1.4	4.478	A
	3 - A3(M) on-slip		750						
	4 - Purbrook Way (W)	1469	196	2208	0.665	1469	2.0	4.866	A
2 - Western roundabout	1 - Purbrook Way (E)	557	4	1814	0.307	557	0.4	2.863	A
	2 - A3(M) off-slip	958	561	1838	0.521	958	1.1	4.089	A
	3 - Purbrook Way (W)	852	617	1513	0.563	852	1.3	5.450	A

12:30 - 12:45

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	369	1036	981	0.376	371	0.6	5.920	A
	2 - Purbrook Way (E)	894	445	1977	0.452	897	0.8	3.340	A
	3 - A3(M) on-slip		614						
	4 - Purbrook Way (W)	1202	160	2236	0.538	1205	1.2	3.505	A
2 - Western roundabout	1 - Purbrook Way (E)	456	4	1814	0.251	457	0.3	2.653	A
	2 - A3(M) off-slip	782	460	1919	0.408	784	0.7	3.178	A
	3 - Purbrook Way (W)	696	504	1595	0.436	698	0.8	4.020	A

12:45 - 13:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	309	866	1094	0.282	310	0.4	4.595	A
	2 - Purbrook Way (E)	749	371	2036	0.368	750	0.6	2.801	A
	3 - A3(M) on-slip		513						
	4 - Purbrook Way (W)	1006	134	2257	0.446	1007	0.8	2.883	A
2 - Western roundabout	1 - Purbrook Way (E)	382	3	1815	0.210	382	0.3	2.512	A
	2 - A3(M) off-slip	655	385	1978	0.331	656	0.5	2.724	A
	3 - Purbrook Way (W)	583	422	1656	0.352	584	0.5	3.358	A

2020 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	5.54	A
2	Western roundabout	Standard Roundabout		1, 2, 3	4.07	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold

Left	Normal/unknown	12	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D14	2020 + devt	SAT	ONE HOUR	11:30	13:00	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	499	100.000
	2 - Purbrook Way (E)		✓	955	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	820	100.000
	3 - Purbrook Way (W)		✓	765	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	231	112	156
	2 - Purbrook Way (E)	212	1	389	353
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	246	785	257	2

Demand (Veh/hr)

2 - Western roundabout

		To		
		1 - Purbrook Way (E)	**2 - A3(M) off-slip**	**3 - Purbrook Way (W)**
From	**1 - Purbrook Way (E)**	1	0	510
	2 - A3(M) off-slip	528	0	292
	3 - Purbrook Way (W)	761	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	1	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.60	9.94	1.5	A
	2 - Purbrook Way (E)	0.56	4.38	1.3	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.65	4.72	1.8	A
2 - Western roundabout	1 - Purbrook Way (E)	0.31	2.88	0.5	A
	2 - A3(M) off-slip	0.49	3.87	1.0	A
	3 - Purbrook Way (W)	0.54	5.06	1.2	A

Main Results for each time segment

11:30 - 11:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	376	780	1156	0.325	374	0.5	4.590	A
	2 - Purbrook Way (E)	719	394	2023	0.355	717	0.5	2.751	A
	3 - A3(M) on-slip		543						
	4 - Purbrook Way (W)	966	160	2239	0.431	963	0.8	2.813	A
2 - Western roundabout	1 - Purbrook Way (E)	385	3	1815	0.212	384	0.3	2.514	A
	2 - A3(M) off-slip	617	387	1977	0.312	616	0.5	2.641	A

	3 - Purbrook Way (W)	576	397	1691	0.341	574	0.5	3.217	A

11:45 - 12:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	449	935	1053	0.426	448	0.7	5.939	A
	2 - Purbrook Way (E)	859	472	1960	0.438	858	0.8	3.262	A
	3 - A3(M) on-slip		650						
	4 - Purbrook Way (W)	1156	191	2214	0.522	1155	1.1	3.392	A
2 - Western roundabout	1 - Purbrook Way (E)	460	4	1814	0.254	460	0.3	2.658	A
	2 - A3(M) off-slip	737	464	1916	0.385	736	0.6	3.051	A
	3 - Purbrook Way (W)	688	475	1633	0.421	687	0.7	3.801	A

12:00 - 12:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	549	1144	914	0.601	546	1.5	9.715	A
	2 - Purbrook Way (E)	1051	577	1876	0.561	1050	1.3	4.347	A
	3 - A3(M) on-slip		795						
	4 - Purbrook Way (W)	1415	234	2181	0.649	1412	1.8	4.662	A
2 - Western roundabout	1 - Purbrook Way (E)	563	4	1814	0.310	563	0.4	2.877	A
	2 - A3(M) off-slip	903	567	1834	0.492	901	1.0	3.856	A
	3 - Purbrook Way (W)	842	582	1554	0.542	840	1.2	5.036	A

12:15 - 12:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	549	1148	911	0.603	549	1.5	9.942	A
	2 - Purbrook Way (E)	1051	580	1873	0.561	1051	1.3	4.379	A
	3 - A3(M) on-slip		797						
	4 - Purbrook Way (W)	1417	235	2181	0.650	1417	1.8	4.715	A
2 - Western roundabout	1 - Purbrook Way (E)	565	4	1814	0.311	565	0.5	2.881	A
	2 - A3(M) off-slip	903	569	1832	0.493	903	1.0	3.873	A
	3 - Purbrook Way (W)	842	582	1553	0.542	842	1.2	5.064	A

12:30 - 12:45

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	449	942	1048	0.428	452	0.8	6.060	A
	2 - Purbrook Way (E)	859	476	1957	0.439	860	0.8	3.288	A
	3 - A3(M) on-slip		653						
	4 - Purbrook Way (W)	1160	192	2214	0.524	1163	1.1	3.433	A
2 - Western roundabout	1 - Purbrook Way (E)	463	4	1814	0.255	463	0.3	2.666	A
	2 - A3(M) off-slip	737	467	1913	0.385	739	0.6	3.067	A
	3 - Purbrook Way (W)	688	476	1632	0.421	689	0.7	3.828	A

12:45 - 13:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	376	787	1151	0.326	377	0.5	4.653	A
	2 - Purbrook Way (E)	719	397	2020	0.356	720	0.6	2.770	A
	3 - A3(M) on-slip		546						
	4 - Purbrook Way (W)	970	161	2238	0.434	972	0.8	2.844	A
2 - Western roundabout	1 - Purbrook Way (E)	387	3	1815	0.213	387	0.3	2.521	A
	2 - A3(M) off-slip	617	390	1974	0.313	618	0.5	2.657	A
	3 - Purbrook Way (W)	576	399	1690	0.341	577	0.5	3.235	A

2025 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Linked Roundabout	1 - Eastern (B&Q) roundabout - 4 - Purbrook Way (W)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	1 - Eastern (B&Q) roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.
Warning	Linked Roundabout	2 - Western roundabout - 1 - Purbrook Way (E)	If the distance between linked junctions is small, results should be treated with caution. The linked junctions will be modelled as separate junctions, but the real behaviour may be that of a complex system with interactions that cannot be modelled.
Warning	Linked roundabouts	2 - Western roundabout	U-turns on linked arms may cause sporadic locking up of junctions and/or unreliable results.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Eastern (B&Q) roundabout	Standard Roundabout		1, 2, 3, 4	6.55	A

2	Western roundabout	Standard Roundabout		1, 2, 3	4.47	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	8	1 - Eastern (B&Q) roundabout - 1 - B&Q / site

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)
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15

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

Linked Arm Data

Junction	Arm	Feeding Junction	Feeding Arm	Link Type	Flow source	Uniform flow (Veh/hr)	Flow multiplier (%)	Internal storage space (PCU)
1 - Eastern (B&Q) roundabout	**4 - Purbrook Way (W)**	2	1	Simple (vertical queueing)	Normal	0	100.00	
2 - Western roundabout	**1 - Purbrook Way (E)**	1	4	Simple (vertical queueing)	Normal	0	100.00	

Demand overview (Traffic)

Junction	Arm	Linked arm	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**		✓	524	100.000
	2 - Purbrook Way (E)		✓	1015	100.000
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	✓			
2 - Western roundabout	**1 - Purbrook Way (E)**	✓			
	2 - A3(M) off-slip		✓	873	100.000
	3 - Purbrook Way (W)		✓	812	100.000

Origin-Destination Data

Demand (Veh/hr)

1 - Eastern (B&Q) roundabout

		To			
		1 - B&Q / site	**2 - Purbrook Way (E)**	**3 - A3(M) on-slip**	**4 - Purbrook Way (W)**
From	**1 - B&Q / site**	0	243	119	162
	2 - Purbrook Way (E)	223	1	414	377
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	257	838	274	2

2 - Western roundabout

Demand (Veh/hr)

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	1	0	541
	2 - A3(M) off-slip	562	0	311
	3 - Purbrook Way (W)	808	0	4

Vehicle Mix

1 - Eastern (B&Q) roundabout

Heavy Vehicle Percentages

		To			
		1 - B&Q / site	2 - Purbrook Way (E)	3 - A3(M) on-slip	4 - Purbrook Way (W)
From	1 - B&Q / site	0	0	0	0
	2 - Purbrook Way (E)	0	0	0	2
	3 - A3(M) on-slip	Exit-only	Exit-only	Exit-only	Exit-only
	4 - Purbrook Way (W)	0	1	1	0

2 - Western roundabout

Heavy Vehicle Percentages

		To		
		1 - Purbrook Way (E)	2 - A3(M) off-slip	3 - Purbrook Way (W)
From	1 - Purbrook Way (E)	0	0	1
	2 - A3(M) off-slip	0	0	0
	3 - Purbrook Way (W)	1	0	0

Results

Results Summary for whole modelled period

Junction	Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS
1 - Eastern (B&Q) roundabout	1 - B&Q / site	0.67	12.69	2.0	B
	2 - Purbrook Way (E)	0.61	4.93	1.5	A
	3 - A3(M) on-slip				
	4 - Purbrook Way (W)	0.69	5.41	2.2	A
2 - Western roundabout	1 - Purbrook Way (E)	0.33	2.96	0.5	A
	2 - A3(M) off-slip	0.53	4.26	1.1	A
	3 - Purbrook Way (W)	0.59	5.70	1.4	A

Main Results for each time segment

11:30 - 11:45

Junction	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

1 - Eastern (B&Q) roundabout	1 - B&Q / site	394	832	1122	0.352	392	0.5	4.923	A
	2 - Purbrook Way (E)	764	416	2005	0.381	762	0.6	2.889	A
	3 - A3(M) on-slip		574						
	4 - Purbrook Way (W)	1026	168	2232	0.460	1023	0.8	2.968	A
2 - Western roundabout	1 - Purbrook Way (E)	407	3	1815	0.224	406	0.3	2.553	A
	2 - A3(M) off-slip	657	409	1959	0.335	655	0.5	2.758	A
	3 - Purbrook Way (W)	611	423	1672	0.366	609	0.6	3.379	A

11:45 - 12:00

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	471	998	1011	0.466	470	0.9	6.632	A
	2 - Purbrook Way (E)	912	499	1938	0.471	911	0.9	3.502	A
	3 - A3(M) on-slip		687						
	4 - Purbrook Way (W)	1228	201	2207	0.557	1227	1.2	3.667	A
2 - Western roundabout	1 - Purbrook Way (E)	487	4	1814	0.269	487	0.4	2.712	A
	2 - A3(M) off-slip	785	491	1894	0.414	784	0.7	3.241	A
	3 - Purbrook Way (W)	730	506	1610	0.453	729	0.8	4.081	A

12:00 - 12:15

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	1219	864	0.668	573	1.9	12.190	B
	2 - Purbrook Way (E)	1118	609	1850	0.604	1115	1.5	4.883	A
	3 - A3(M) on-slip		839						
	4 - Purbrook Way (W)	1503	246	2171	0.692	1499	2.2	5.322	A
2 - Western roundabout	1 - Purbrook Way (E)	596	4	1814	0.328	595	0.5	2.952	A
	2 - A3(M) off-slip	961	600	1808	0.532	960	1.1	4.235	A
	3 - Purbrook Way (W)	894	619	1526	0.586	892	1.4	5.656	A

12:15 - 12:30

Junction	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
1 - Eastern (B&Q) roundabout	1 - B&Q / site	577	1225	860	0.671	577	2.0	12.686	B
	2 - Purbrook Way (E)	1118	612	1847	0.605	1117	1.5	4.935	A
	3 - A3(M) on-slip		842						

	4 - Purbrook Way (W)	1506	247	2171	0.694	1506	2.2	5.411	A
2 - Western roundabout	**1 - Purbrook Way (E)**	598	4	1814	0.330	598	0.5	2.959	A
	2 - A3(M) off-slip	961	602	1806	0.532	961	1.1	4.262	A
	3 - Purbrook Way (W)	894	620	1525	0.586	894	1.4	5.703	A

12:30 - 12:45

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	471	1006	1006	0.468	475	0.9	6.843	A
	2 - Purbrook Way (E)	912	504	1934	0.472	915	0.9	3.542	A
	3 - A3(M) on-slip		691						
	4 - Purbrook Way (W)	1233	202	2206	0.559	1237	1.3	3.728	A
2 - Western roundabout	**1 - Purbrook Way (E)**	491	4	1814	0.270	491	0.4	2.720	A
	2 - A3(M) off-slip	785	495	1891	0.415	786	0.7	3.265	A
	3 - Purbrook Way (W)	730	507	1609	0.454	732	0.8	4.115	A

12:45 - 13:00

Junction	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
1 - Eastern (B&Q) roundabout	**1 - B&Q / site**	394	840	1116	0.353	396	0.6	5.007	A
	2 - Purbrook Way (E)	764	420	2002	0.382	765	0.6	2.916	A
	3 - A3(M) on-slip		577						
	4 - Purbrook Way (W)	1031	169	2232	0.462	1033	0.9	3.006	A
2 - Western roundabout	**1 - Purbrook Way (E)**	410	3	1815	0.226	410	0.3	2.564	A
	2 - A3(M) off-slip	657	413	1956	0.336	658	0.5	2.777	A
	3 - Purbrook Way (W)	611	424	1671	0.366	612	0.6	3.406	A

APPENDIX M: LINSIG Output – College Road / Purbrook Way Signal Junction

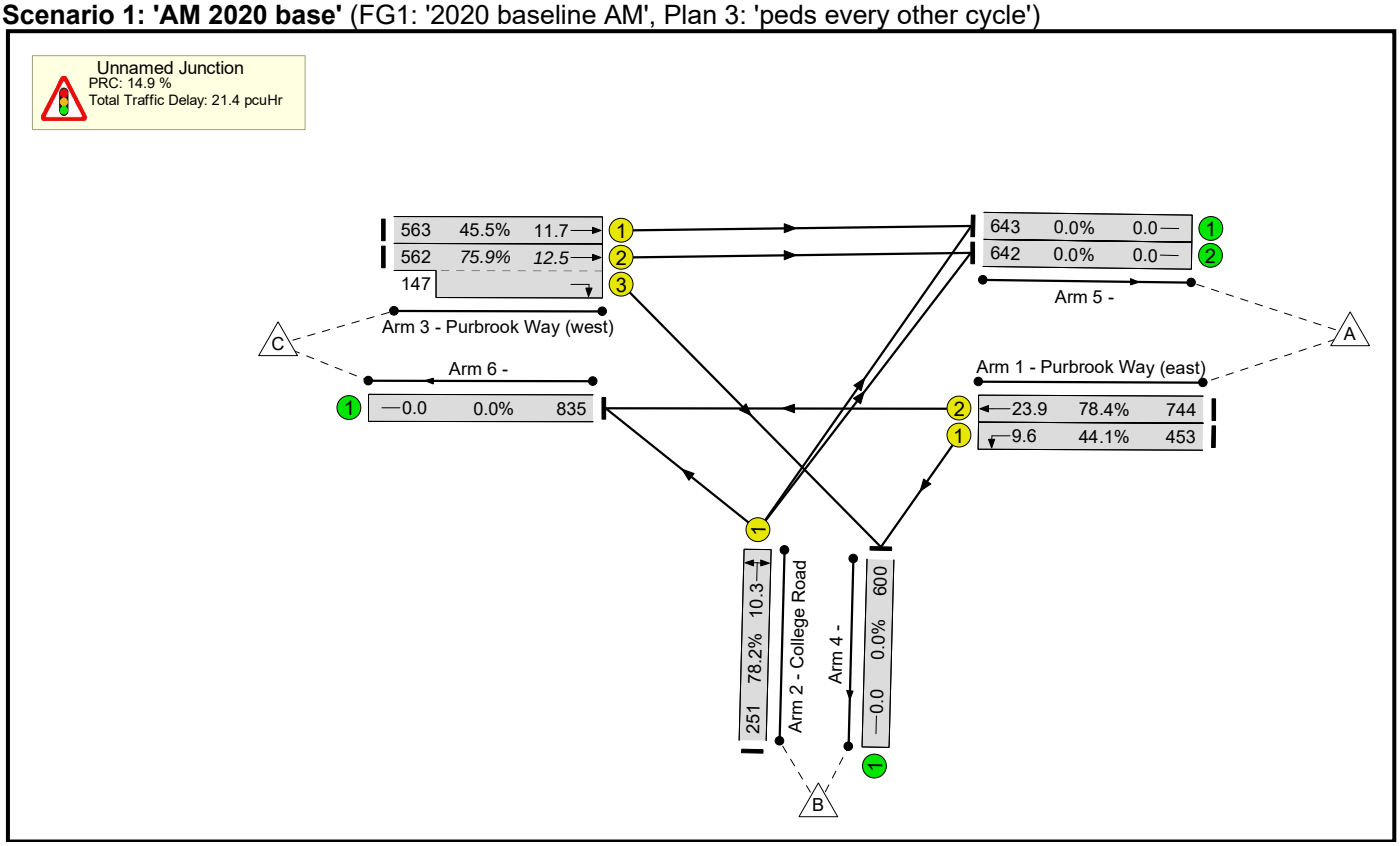
Purbrook Way - College Road

Project and User Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	LinSig- Purbrook Way_College Road (v1 March2021).lsg3x
Author:	
Company:	
Address:	
Linsig Version:	3, 2, 40, 0

Network Layout Diagram

Scenario 1: 'AM 2020 base' (FG1: '2020 baseline AM', Plan 3: 'peds every other cycle')



Network Summary

Scenario 1: 'AM 2020 base' (FG1: '2020 baseline AM', Plan 3: 'peds every other cycle')

Total Network Delay: 21.38 pcuHr

Worst PRC: 14.86 % (On Lane 1/2)

Scenario 2: 'AM 2025 base' (FG2: '2025 baseline AM', Plan 3: 'peds every other cycle')

Total Network Delay: 78.71 pcuHr
Worst PRC: -15.17 % (On Lane 1/2)

Scenario 3: 'AM 2020 + devt' (FG3: '2020 + development', Plan 3: 'peds every other cycle')

Total Network Delay: 21.90 pcuHr
Worst PRC: 14.29 % (On Lane 1/2)

Scenario 4: 'AM 2025 +devt' (FG4: '2025 + development', Plan 3: 'peds every other cycle')

Total Network Delay: 91.64 pcuHr
Worst PRC: -15.53 % (On Lane 2/1)

Scenario 5: 'PM 2020 base' (FG5: '2020 baseline PM', Plan 3: 'peds every other cycle')

Total Network Delay: 33.09 pcuHr
Worst PRC: -4.79 % (On Lane 2/1)

Scenario 6: 'PM 2025 base' (FG6: '2025 baseline PM', Plan 3: 'peds every other cycle')

Total Network Delay: 194.04 pcuHr
Worst PRC: -27.64 % (On Lane 3/2)

Scenario 7: 'PM 2020 + devt' (FG7: '2020 + development', Plan 3: 'peds every other cycle')

Total Network Delay: 36.28 pcuHr
Worst PRC: -6.93 % (On Lane 2/1)

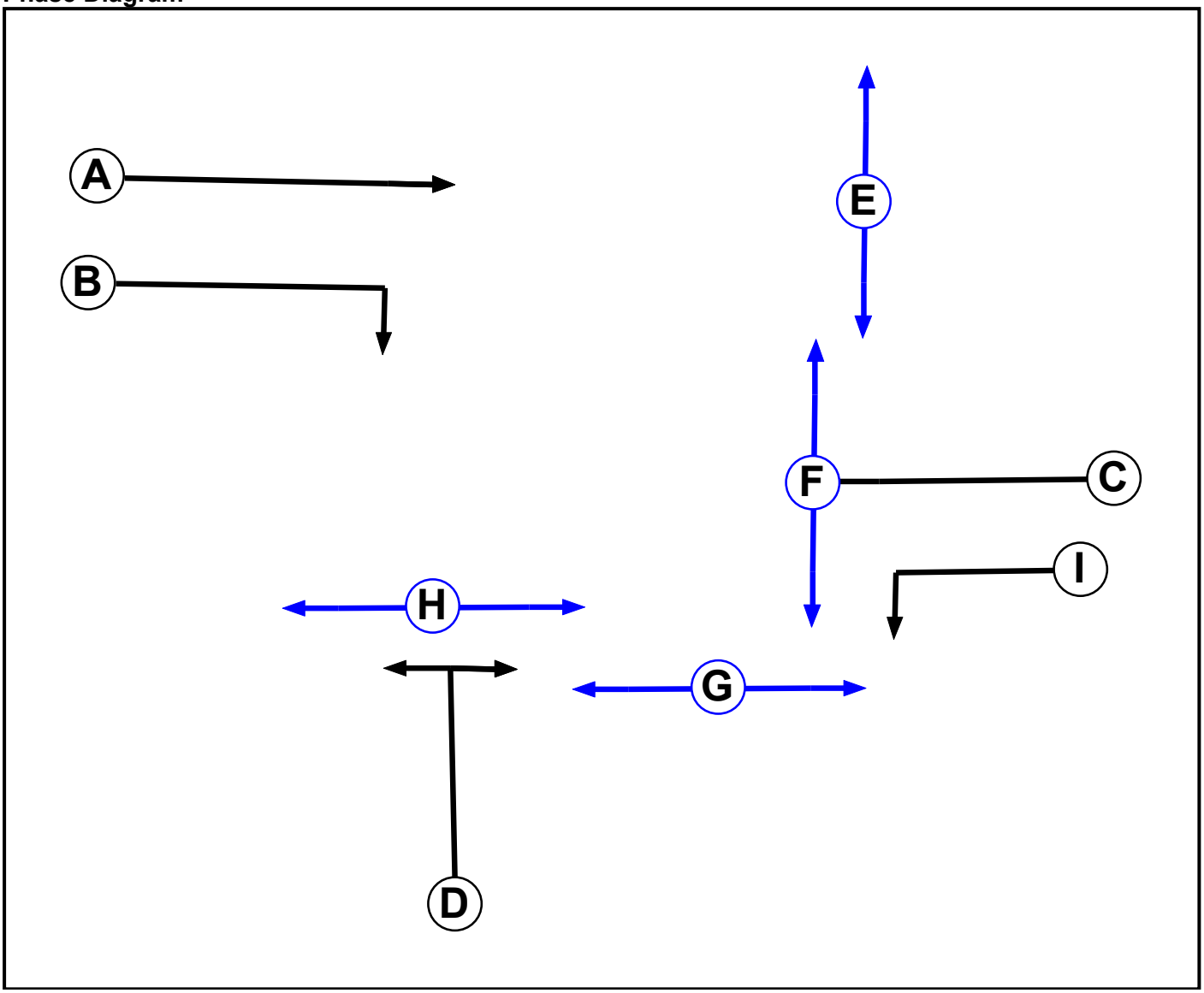
Scenario 8: 'PM 2025 + devt' (FG8: '2025 + development', Plan 3: 'peds every other cycle')

Total Network Delay: 210.13 pcuHr
Worst PRC: -29.69 % (On Lane 2/1)

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		7	7
E	Pedestrian		4	4
F	Pedestrian		4	4
G	Pedestrian		4	4
H	Pedestrian		4	4
I	Traffic		7	7

Phase Diagram



Phase Intergreens Matrix

		Starting Phase								
		A	B	C	D	E	F	G	H	I
Terminating Phase	A		-	-	6	11	-	-	-	-
	B	-		7	6	-	-	9	-	9
	C	-	6		6	-	6	9	-	-
	D	8	7	6		12	-	-	6	-
	E	8	-	-	8		-	-	-	-
	F	-	-	8	-	-		-	-	8
	G	-	8	8	-	-	-		-	8
	H	-	-	-	8	-	-	-		-
	I	-	5	-	-	-	5	9	-	

Phases in Stage

Stage No.	Phases in Stage
1	A C H I
2	A B F H
3	D F G
4	D I
5	E F G H

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Lane Input Data

Junction: Unnamed Junction												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Purbrook Way (east))	U	I	2	3	45.2	Geom	-	3.00	0.00	Y	Arm 4 Left	19.00
1/2 (Purbrook Way (east))	U	C	2	3	45.2	Geom	-	3.00	0.00	Y	Arm 6 Ahead	Inf
2/1 (College Road)	U	D	2	3	60.0	Geom	-	4.00	0.00	Y	Arm 5 Right Arm 6 Left	21.00 20.00
3/1 (Purbrook Way (west))	U	A	2	3	67.8	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
3/2 (Purbrook Way (west))	U	A	2	3	27.8	Geom	-	3.00	0.00	N	Arm 5 Ahead	Inf
3/3 (Purbrook Way (west))	U	B	2	3	18.4	Geom	-	3.00	0.00	Y	Arm 4 Right	15.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/2	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2020 baseline AM'	08:00	09:00	01:00	

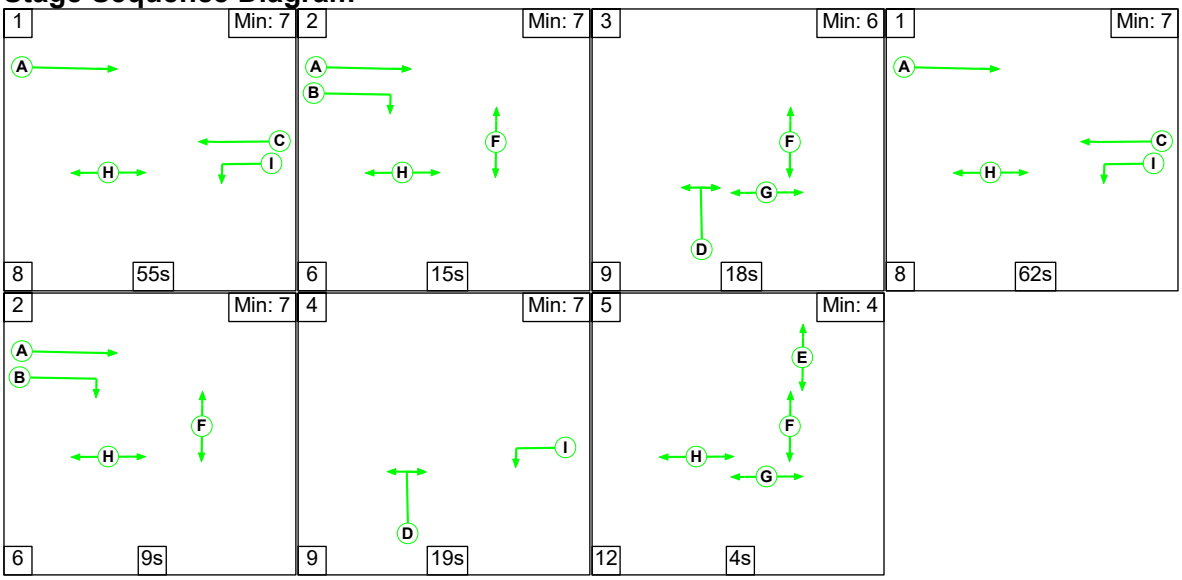
Scenario 1: 'AM 2020 base' (FG1: '2020 baseline AM', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	453	744	1197
	B	160	0	91	251
	C	1125	147	0	1272
	Tot.	1285	600	835	2720

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	55	15	18	62	9	19	4
Change Point	0	63	84	111	181	196	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.4%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.4%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	136	-	453	1775	1028	44.1%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	117	-	744	1915	950	78.4%
2/1	College Road Right Left	U	N/A	D		2	39	-	251	1878	321	78.2%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	153	-	563	1915	1237	45.5%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	153:24	-	709	2055:1741	934	75.9%
4/1		U	N/A	-		-	-	-	600	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	643	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	642	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	835	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**21.4**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**21.4**	**-**	**-**	**-**	**-**	
1/1	453	453	-	-	-	-	1.8	14.5	9.2	0.4	9.6	
1/2	744	744	-	-	-	-	7.0	33.8	22.1	1.8	23.9	
2/1	251	251	-	-	-	-	5.1	72.5	8.6	1.7	10.3	
3/1	563	563	-	-	-	-	2.2	13.8	11.3	0.4	11.7	
3/2+3/3	709	709	-	-	-	-	5.4	27.2	10.9	1.6	12.5	
4/1	600	600	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	643	643	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	642	642	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	835	835	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 14.9 Total Delay for Signalled Lanes (pcuHr): 21.38 Cycle Time (s): 240
PRC Over All Lanes (%): 14.9 Total Delay Over All Lanes(pcuHr): 21.38

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: '2025 baseline AM'	08:00	09:00	01:00	

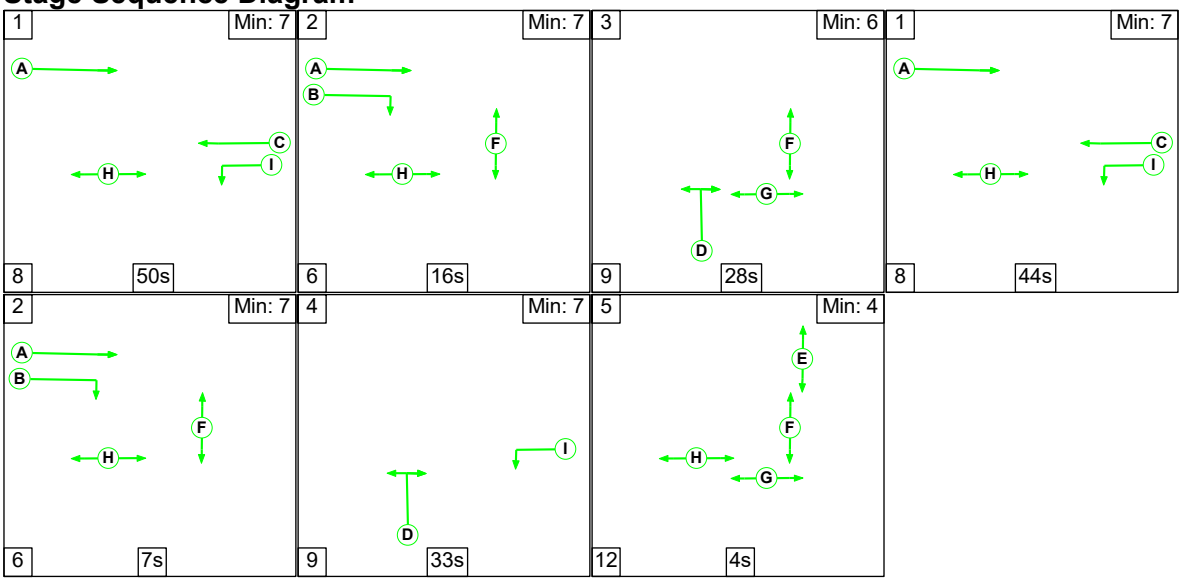
Scenario 2: 'AM 2025 base' (FG2: '2025 baseline AM', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	563	794	1357
	B	359	0	161	520
	C	1200	184	0	1384
	Tot.	1559	747	955	3261

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	50	16	28	44	7	33	4
Change Point	0	58	80	117	169	182	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**103.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**103.7%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	127	-	563	1775	961	58.6%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	94	-	794	1915	766	103.7%
2/1	College Road Right Left	U	N/A	D		2	63	-	520	1879	509	102.2%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	129	-	600	1915	1045	57.4%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	129:23	-	784	2055:1741	826	94.9%
4/1		U	N/A	-		-	-	-	747	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	779	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	780	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	955	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**78.7**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**78.7**	**-**	**-**	**-**	**-**	
1/1	563	563	-	-	-	-	3.2	20.8	15.0	0.7	15.7	
1/2	794	766	-	-	-	-	34.5	156.3	30.9	22.7	53.6	
2/1	520	509	-	-	-	-	23.3	161.5	20.0	14.5	34.5	
3/1	600	600	-	-	-	-	3.8	22.7	15.7	0.7	16.3	
3/2+3/3	784	781	-	-	-	-	13.9	63.7	15.2	7.0	22.2	
4/1	744	744	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	775	775	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	776	776	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	924	924	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): -15.2 Total Delay for Signalled Lanes (pcuHr): 78.71 Cycle Time (s): 240
PRC Over All Lanes (%): -15.2 Total Delay Over All Lanes(pcuHr): 78.71

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
3: '2020 + development'	08:00	09:00	01:00	

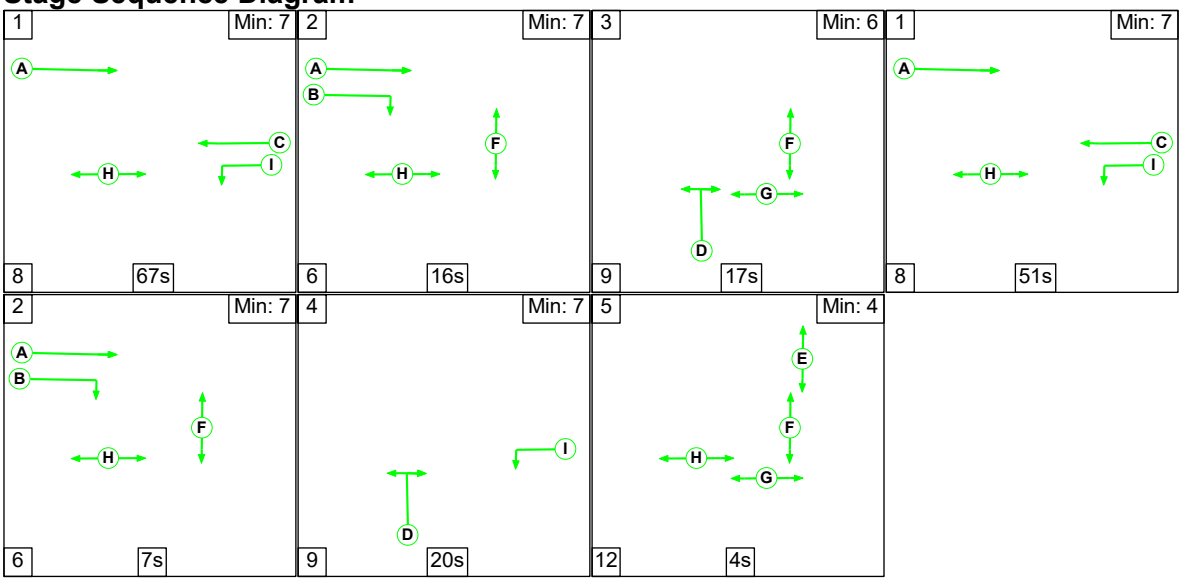
Scenario 3: 'AM 2020 + devt' (FG3: '2020 + development', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	454	754	1208
	B	161	0	91	252
	C	1138	147	0	1285
	Tot.	1299	601	845	2745

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	67	16	17	51	7	20	4
Change Point	0	75	97	123	182	195	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**78.7%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	138	-	454	1775	1043	43.5%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	118	-	754	1915	957	78.7%
2/1	College Road Right Left	U	N/A	D		2	39	-	252	1878	321	78.5%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	153	-	569	1915	1237	46.0%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	153:23	-	716	2055:1741	931	76.9%
4/1		U	N/A	-		-	-	-	601	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	649	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	650	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	845	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**21.9**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**21.9**	**-**	**-**	**-**	**-**	
1/1	454	454	-	-	-	-	1.8	14.2	9.2	0.4	9.6	
1/2	754	754	-	-	-	-	7.0	33.6	22.4	1.8	24.2	
2/1	252	252	-	-	-	-	5.2	74.6	9.7	1.7	11.4	
3/1	569	569	-	-	-	-	2.2	13.9	11.5	0.4	12.0	
3/2+3/3	716	716	-	-	-	-	5.6	28.4	11.2	1.6	12.9	
4/1	601	601	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	649	649	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	650	650	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	845	845	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): 14.3 Total Delay for Signalled Lanes (pcuHr): 21.90 Cycle Time (s): 240
PRC Over All Lanes (%): 14.3 Total Delay Over All Lanes(pcuHr): 21.90

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
5: '2020 baseline PM'	16:30	17:30	01:00	

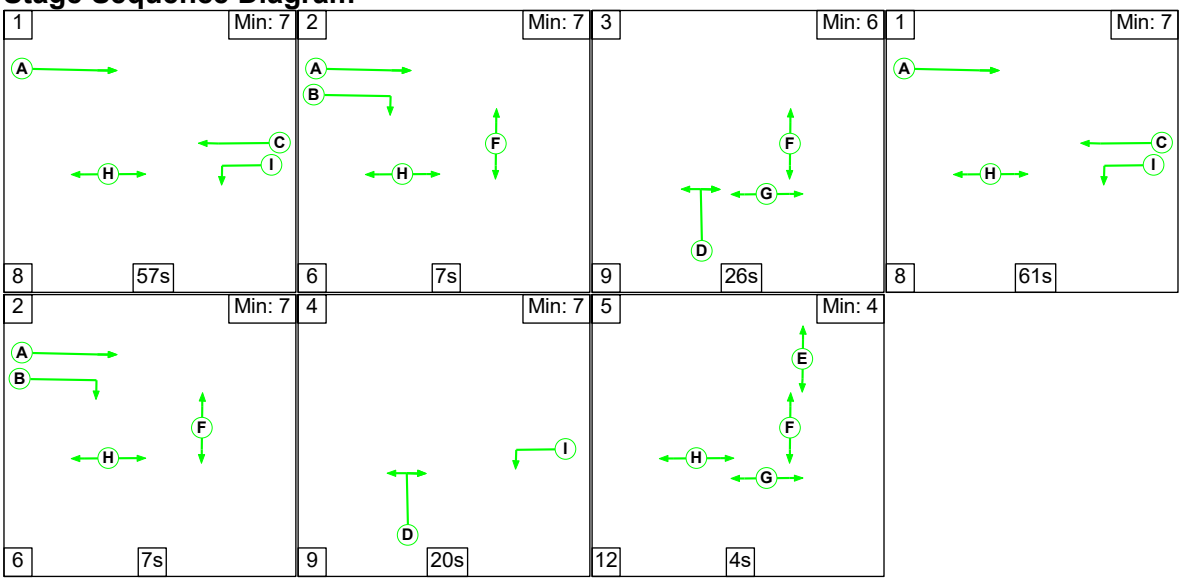
Scenario 5: 'PM 2020 base' (FG5: '2020 baseline PM', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	262	898	1160
	B	211	0	158	369
	C	718	106	0	824
	Tot.	929	368	1056	2353

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	57	7	26	61	7	20	4
Change Point	0	65	78	113	182	195	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.3%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.3%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	138	-	262	1775	1043	25.1%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	118	-	898	1915	957	93.8%
2/1	College Road Right Left	U	N/A	D		2	48	-	369	1878	391	94.3%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	144	-	359	1915	1165	30.8%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	144:14	-	465	2055:1741	509	91.3%
4/1		U	N/A	-		-	-	-	368	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	464	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	465	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	1056	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**33.1**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**33.1**	**-**	**-**	**-**	**-**	
1/1	262	262	-	-	-	-	0.9	12.1	4.7	0.2	4.8	
1/2	898	898	-	-	-	-	13.3	53.5	30.4	6.2	36.7	
2/1	369	369	-	-	-	-	10.4	101.0	12.8	5.5	18.3	
3/1	359	359	-	-	-	-	1.4	13.7	6.3	0.2	6.5	
3/2+3/3	465	465	-	-	-	-	7.2	55.4	6.3	4.4	10.7	
4/1	368	368	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	464	464	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	465	465	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	1056	1056	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): -4.8 Total Delay for Signalled Lanes (pcuHr): 33.09 Cycle Time (s): 240
PRC Over All Lanes (%): -4.8 Total Delay Over All Lanes(pcuHr): 33.09

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
6: '2025 baseline PM'	16:30	17:30	01:00	

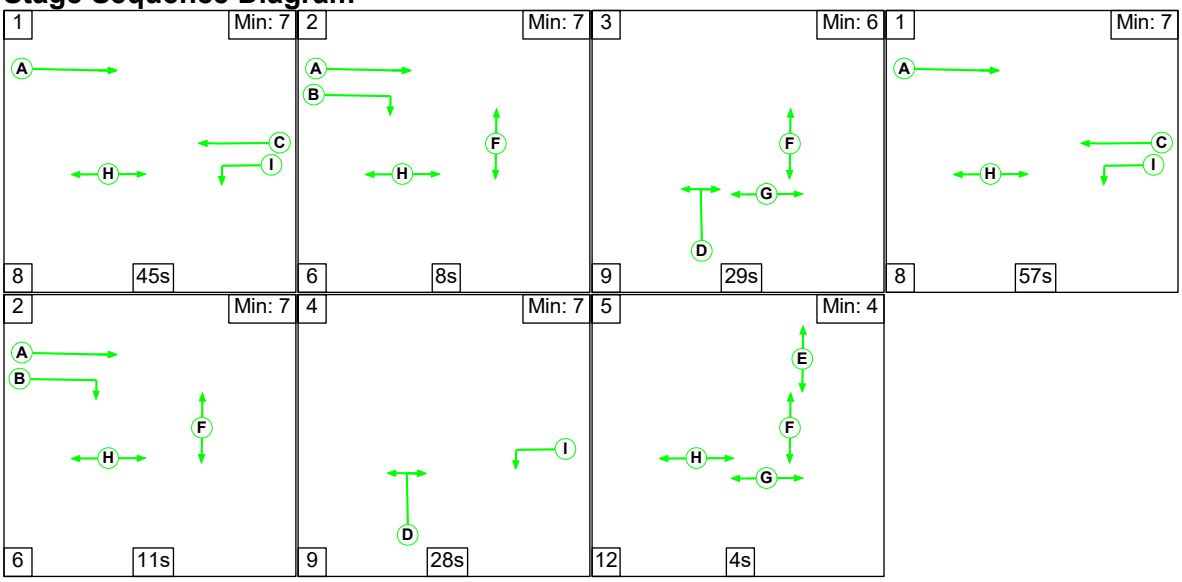
Scenario 6: 'PM 2025 base' (FG6: '2025 baseline PM', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	466	952	1418
	B	340	0	208	548
	C	761	175	0	936
	Tot.	1101	641	1160	2902

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	45	8	29	57	11	28	4
Change Point	0	53	67	105	170	187	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**114.9%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**114.9%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	130	-	466	1775	984	47.4%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	102	-	952	1915	830	114.7%
2/1	College Road Right Left	U	N/A	D		2	59	-	548	1878	477	114.8%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	133	-	381	1915	1077	35.4%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	133:19	-	555	2055:1741	483	114.9%
4/1		U	N/A	-		-	-	-	641	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	551	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	550	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	1160	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**194.0**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**194.0**	**-**	**-**	**-**	**-**	
1/1	466	466	-	-	-	-	2.1	16.6	10.4	0.4	10.8	
1/2	952	830	-	-	-	-	89.0	336.6	47.2	64.8	112.0	
2/1	548	477	-	-	-	-	54.8	360.0	27.8	38.9	66.7	
3/1	381	381	-	-	-	-	1.8	17.2	7.8	0.3	8.1	
3/2+3/3	555	532	-	-	-	-	46.3	300.1	8.9	39.5	48.3	
4/1	618	618	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	529	529	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	528	528	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	1011	1011	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): -27.6 Total Delay for Signalled Lanes (pcuHr): 194.04 Cycle Time (s): 240
PRC Over All Lanes (%): -27.6 Total Delay Over All Lanes(pcuHr): 194.04

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
7: '2020 + development'	16:30	17:30	01:00	

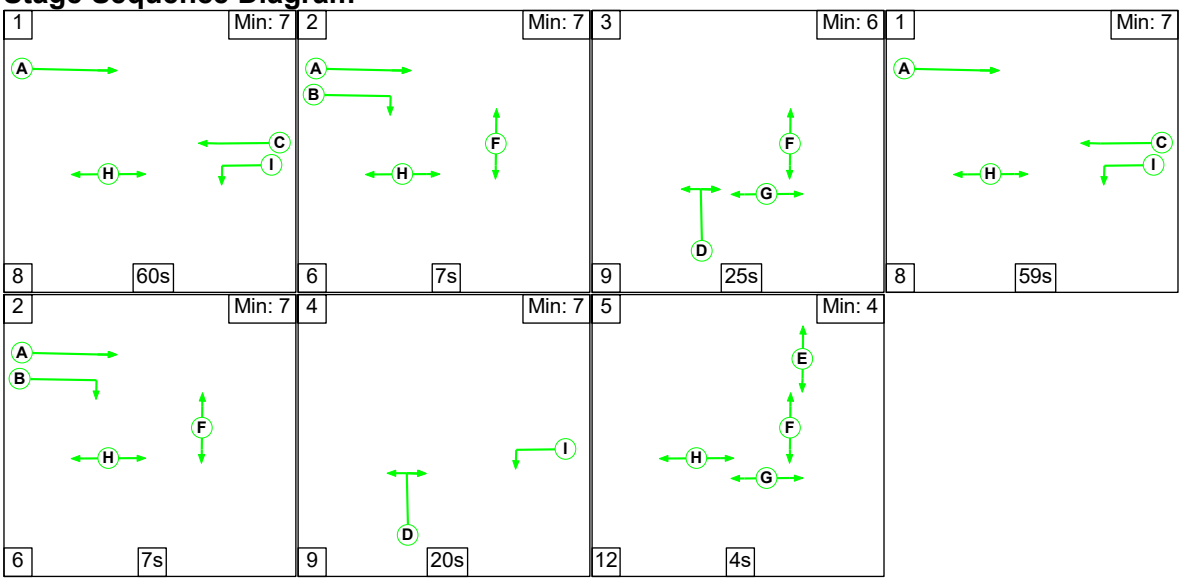
Scenario 7: 'PM 2020 + devt' (FG7: '2020 + development', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	264	923	1187
	B	211	0	158	369
	C	742	106	0	848
	Tot.	953	370	1081	2404

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	60	7	25	59	7	20	4
Change Point	0	68	81	115	182	195	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**96.2%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**96.2%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	139	-	264	1775	1050	25.1%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	119	-	923	1915	965	95.6%
2/1	College Road Right Left	U	N/A	D		2	47	-	369	1878	383	96.2%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	145	-	371	1915	1173	31.6%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	145:14	-	477	2055:1741	522	91.3%
4/1		U	N/A	-		-	-	-	370	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	476	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	477	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	1081	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**36.3**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**36.3**	**-**	**-**	**-**	**-**	
1/1	264	264	-	-	-	-	0.9	11.8	4.6	0.2	4.8	
1/2	923	923	-	-	-	-	15.3	59.6	32.0	7.9	40.0	
2/1	369	369	-	-	-	-	11.5	112.6	13.2	6.7	19.9	
3/1	371	371	-	-	-	-	1.4	13.6	6.6	0.2	6.8	
3/2+3/3	477	477	-	-	-	-	7.2	54.3	6.5	4.4	10.9	
4/1	370	370	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	476	476	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	477	477	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	1081	1081	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): -6.9 Total Delay for Signalled Lanes (pcuHr): 36.28 Cycle Time (s): 240
PRC Over All Lanes (%): -6.9 Total Delay Over All Lanes(pcuHr): 36.28

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
8: '2025 + development'	16:30	17:30	01:00	

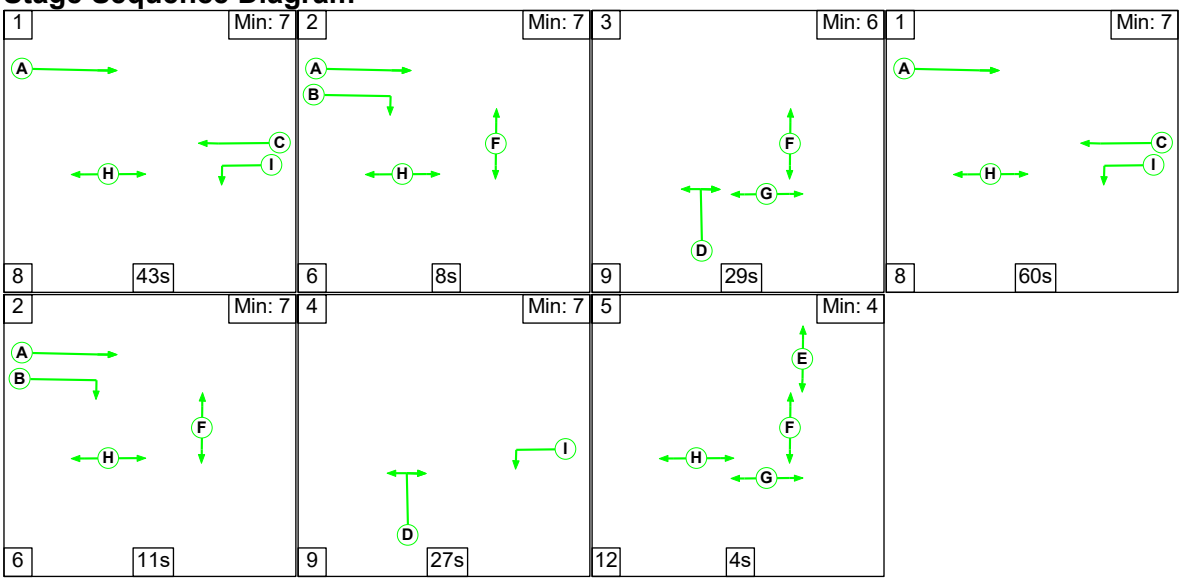
Scenario 8: 'PM 2025 + devt' (FG8: '2025 + development', Plan 3: 'peds every other cycle')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	468	977	1445
	B	340	0	208	548
	C	785	175	0	960
	Tot.	1125	643	1185	2953

Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	2	4	5
Duration	43	8	29	60	11	27	4
Change Point	0	51	65	103	171	188	224

Network Results

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**116.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**116.7%**
1/1	Purbrook Way (east) Left	U	N/A	I		3	130	-	468	1775	984	47.6%
1/2	Purbrook Way (east) Ahead	U	N/A	C		2	103	-	977	1915	838	116.6%
2/1	College Road Right Left	U	N/A	D		2	58	-	548	1878	470	116.7%
3/1	Purbrook Way (west) Ahead	U	N/A	A		2	134	-	393	1915	1085	36.2%
3/2+3/3	Purbrook Way (west) Right Ahead	U	N/A	A B		2	134:19	-	567	2055:1741	494	114.9%
4/1		U	N/A	-		-	-	-	643	Inf	Inf	0.0%
5/1		U	N/A	-		-	-	-	563	Inf	Inf	0.0%
5/2		U	N/A	-		-	-	-	562	Inf	Inf	0.0%
6/1		U	N/A	-		-	-	-	1185	Inf	Inf	0.0%

Purbrook Way - College Road

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**0**	**0**	**0**	**0.0**	**210.1**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**0.0**	**210.1**	**-**	**-**	**-**	**-**	
1/1	468	468	-	-	-	-	2.2	16.6	10.4	0.5	10.9	
1/2	977	838	-	-	-	-	99.5	366.7	51.1	72.9	124.1	
2/1	548	470	-	-	-	-	59.4	390.5	28.9	42.5	71.4	
3/1	393	393	-	-	-	-	1.9	17.0	8.1	0.3	8.4	
3/2+3/3	567	544	-	-	-	-	47.2	299.4	9.0	40.2	49.2	
4/1	620	620	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/1	539	539	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
5/2	538	538	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
6/1	1016	1016	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

C1 PRC for Signalled Lanes (%): -29.7 Total Delay for Signalled Lanes (pcuHr): 210.13 Cycle Time (s): 240
PRC Over All Lanes (%): -29.7 Total Delay Over All Lanes(pcuHr): 210.13

APPENDIX N: ARCADY Output – Purbrook Way / Stakes Rd Roundabout

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Arcady - Stakes Road roundabout AM with IC (v2 March2021).j9
Path: H:\LIDLPurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Arcady - Stakes hill roundabout
Report generation date: 19/03/2021 10:24:06

»2020 baseline, AM
»2025 baseline, AM
»2020 + devt, AM
»2025 + devt, AM

Summary of junction performance

	AM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2020 baseline					
1 - Stakes Hill Road (N)	D2	25.3	88.92	1.01	F	-35 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		23.2	92.04	1.01	F	
3 - Crookhorn Lane (S)		41.2	422.90	1.24	F	
4 - Stakes Road (W)		147.7	1094.21	1.45	F	
	2025 baseline					
1 - Stakes Hill Road (N)	D3	56.3	169.14	1.09	F	-41 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		77.1	290.69	1.15	F	
3 - Crookhorn Lane (S)		71.3	839.98	1.36	F	
4 - Stakes Road (W)		221.9	1717.99	1.59	F	
	2020 + devt					
1 - Stakes Hill Road (N)	D4	27.7	95.38	1.02	F	-36 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		26.1	101.09	1.02	F	
3 - Crookhorn Lane (S)		42.7	453.58	1.25	F	
4 - Stakes Road (W)		154.3	1149.33	1.47	F	
	2025 + devt					
1 - Stakes Hill Road (N)	D5	60.9	181.51	1.10	F	-41 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		84.2	324.99	1.17	F	
3 - Crookhorn Lane (S)		73.0	863.59	1.37	F	
4 - Stakes Road (W)		227.8	1756.22	1.60	F	

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. 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	Stakes Hill roundabout
Location	Purbrook Way
Site number	
Date	10/08/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	B/LidlPurbrookWay.1
Enumerator	MAYERBROWN2K\hiorwerth
Description	Advice from TRL regarding modelling unusal arrangement: I have to admit that these are always tricky to both measure and decide how best to model so there is no definite answer – just intelligent decisions and some pragmatism. Where there is any hatching between lanes on an approach we tend to recommend that you try your best to construct draw the construction lines as if the hatching is invisible to you – so using the median line of the approaching Arm and the kerb line etc. Then try to take off from one side or the other (kerb or median line the space used up by the hatching. Then take the measurements from these repositioned construction lines – in the normal way. I hope that makes some kind of sense. Also any physical evidence of existing situation where vehicles are clearly ignoring hatching – e.g. cutting corner on the nearside hatching is justification for including that part within the measurements – No such situation in the case below by the look of it. As for the fact that the left turns are to some extend bypassing the roundabout, we tend to recommend to stay with what is likely to be pessimistic result, by assuming traffic that is turning left is still yielding (as normal) to the full circulating traffic flow. If you are able to collect decent quality local data, there is scope here to adjust for any benefit that comes from the arrangement you have in your junction where traffic probably can pull out from the nearside kerb-side lane more readily than is usually the case. Regards, Jim Jim Binning BSc (Hons) MCIHT Product Owner, TRL Software

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	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)	Run automatically
D1	2020 observed	AM	ONE HOUR	07:45	09:15	15	
D2	2020 baseline	AM	ONE HOUR	07:45	09:15	15	✓
D3	2025 baseline	AM	ONE HOUR	07:45	09:15	15	✓
D4	2020 + devt	AM	ONE HOUR	07:45	09:15	15	✓
D5	2025 + devt	AM	ONE HOUR	07:45	09:15	15	✓

Analysis Set Details

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

2020 baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	364.25	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-35	4 - Stakes Road (W)

Arms

Arms

Arm	Name	Description
1	Stakes Hill Road (N)	
2	Purbrook Way (E)	
3	Crookhorn Lane (S)	
4	Stakes Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Stakes Hill Road (N)	4.00	6.80	14.0	21.0	26.0	32.0	
2 - Purbrook Way (E)	5.10	7.10	53.0	14.0	26.0	32.0	
3 - Crookhorn Lane (S)	3.00	3.30	9.0	3.0	26.0	31.0	
4 - Stakes Road (W)	3.25	3.25	0.0	3.0	26.0	27.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Stakes Hill Road (N)	Direct		-318
2 - Purbrook Way (E)	Direct		-845
3 - Crookhorn Lane (S)	Direct		-21
4 - Stakes Road (W)	Direct		32

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Stakes Hill Road (N)	0.664	1403
2 - Purbrook Way (E)	0.720	1183
3 - Crookhorn Lane (S)	0.371	692
4 - Stakes Road (W)	0.377	755

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	926	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	815	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	346	100.000
4 - Stakes Road (W)		ONE HOUR	✓	613	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	8	613	143	162
	2 - Purbrook Way (E)	397	13	84	321
	3 - Crookhorn Lane (S)	150	136	1	59
	4 - Stakes Road (W)	80	494	37	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	1	8	1
	2 - Purbrook Way (E)	1	0	5	3
	3 - Crookhorn Lane (S)	10	4	0	8
	4 - Stakes Road (W)	3	3	19	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	1.01	88.92	25.3	F	850	1275
2 - Purbrook Way (E)	1.01	92.04	23.2	F	748	1122
3 - Crookhorn Lane (S)	1.24	422.90	41.2	F	317	476
4 - Stakes Road (W)	1.45	1094.21	147.7	F	562	844

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	697	174	494	1040	0.670	689	469	0.0	2.0	10.052	B
2 - Purbrook Way (E)	614	153	262	963	0.637	607	922	0.0	1.7	9.928	A
3 - Crookhorn Lane (S)	260	65	672	409	0.637	254	196	0.0	1.6	22.364	C
4 - Stakes Road (W)	461	115	522	530	0.871	442	404	0.0	5.0	35.267	E

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	832	208	548	1003	0.830	823	553	2.0	4.3	18.990	C
2 - Purbrook Way (E)	733	183	310	928	0.790	726	1062	1.7	3.5	17.235	C
3 - Crookhorn Lane (S)	311	78	804	363	0.857	300	232	1.6	4.3	50.375	F
4 - Stakes Road (W)	551	138	621	493	1.118	481	483	5.0	22.6	124.453	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1020	255	541	1008	1.011	966	616	4.3	17.7	53.863	F
2 - Purbrook Way (E)	897	224	357	893	1.005	849	1150	3.5	15.6	53.917	F
3 - Crookhorn Lane (S)	381	95	940	315	1.210	308	266	4.3	22.6	184.264	F
4 - Stakes Road (W)	675	169	691	467	1.445	466	557	22.6	74.7	391.666	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1020	255	539	1010	1.009	989	624	17.7	25.3	88.918	F
2 - Purbrook Way (E)	897	224	365	887	1.011	867	1163	15.6	23.2	92.037	F
3 - Crookhorn Lane (S)	381	95	961	308	1.238	306	271	22.6	41.2	388.223	F
4 - Stakes Road (W)	675	169	699	464	1.454	464	568	74.7	127.4	791.027	F

08:45 - 09:00

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity	RFC	Throughput (Veh/hr)	Throughput (exit	Start queu	End queu	Delay (s)	Unsignalised level of service

	(Veh/hr)	Arrivals (Veh)		(Veh/hr)			side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Stakes Hill Road (N)	832	208	550	1003	0.830	911	602	25.3	5.8	50.274	F
2 - Purbrook Way (E)	733	183	339	906	0.808	806	1122	23.2	4.9	47.390	E
3 - Crookhorn Lane (S)	311	78	891	332	0.937	324	253	41.2	37.9	422.898	F
4 - Stakes Road (W)	551	138	682	470	1.172	470	533	127.4	147.7	1060.329	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	697	174	581	981	0.711	710	543	5.8	2.6	13.858	B
2 - Purbrook Way (E)	614	153	272	956	0.642	626	1020	4.9	1.9	11.286	B
3 - Crookhorn Lane (S)	260	65	693	402	0.648	391	204	37.9	5.2	209.888	F
4 - Stakes Road (W)	461	115	646	482	0.957	479	439	147.7	143.4	1094.207	F

2025 baseline, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	642.84	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-41	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2025 baseline	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	1005	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	933	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	369	100.000
4 - Stakes Road (W)		ONE HOUR	✓	663	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	9	672	152	172
	2 - Purbrook Way (E)	465	14	90	364
	3 - Crookhorn Lane (S)	160	145	1	63
	4 - Stakes Road (W)	86	536	39	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	1	6	1
	2 - Purbrook Way (E)	1	0	6	2
	3 - Crookhorn Lane (S)	10	4	0	10
	4 - Stakes Road (W)	2	3	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	1.09	169.14	56.3	F	922	1383
2 - Purbrook Way (E)	1.15	290.69	77.1	F	856	1284
3 - Crookhorn Lane (S)	1.36	839.98	71.3	F	339	508
4 - Stakes Road (W)	1.59	1717.99	221.9	F	608	913

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service

1 - Stakes Hill Road (N)	757	189	517	1028	0.736	746	527	0.0	2.6	12.356	B
2 - Purbrook Way (E)	702	176	276	957	0.734	692	986	0.0	2.6	13.137	B
3 - Crookhorn Lane (S)	278	69	761	378	0.736	268	207	0.0	2.4	30.624	D
4 - Stakes Road (W)	499	125	584	507	0.984	460	445	0.0	9.8	56.529	F

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	903	226	539	1012	0.892	888	609	2.6	6.6	26.029	D
2 - Purbrook Way (E)	839	210	324	922	0.910	820	1103	2.6	7.3	30.750	D
3 - Crookhorn Lane (S)	332	83	902	328	1.010	303	242	2.4	9.5	95.208	F
4 - Stakes Road (W)	596	149	681	471	1.265	468	525	9.8	41.8	218.557	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1107	277	532	1018	1.087	1000	639	6.6	33.1	84.798	F
2 - Purbrook Way (E)	1027	257	361	895	1.148	885	1171	7.3	42.8	115.733	F
3 - Crookhorn Lane (S)	406	102	981	301	1.351	299	265	9.5	36.4	302.331	F
4 - Stakes Road (W)	730	182	711	460	1.586	460	569	41.8	109.4	605.336	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1107	277	531	1018	1.087	1014	641	33.1	56.3	169.136	F
2 - Purbrook Way (E)	1027	257	365	892	1.152	890	1180	42.8	77.1	252.424	F
3 - Crookhorn Lane (S)	406	102	988	298	1.362	298	267	36.4	63.5	621.090	F
4 - Stakes Road (W)	730	182	713	459	1.589	459	573	109.4	177.0	1133.270	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	903	226	532	1017	0.888	1000	639	56.3	32.2	162.106	F
2 - Purbrook Way (E)	839	210	360	895	0.937	884	1171	77.1	65.9	290.693	F
3 - Crookhorn Lane (S)	332	83	980	301	1.101	301	264	63.5	71.3	824.786	F

4 - Stakes Road (W)	596	149	712	460	1.297	460	569	177.0	211.1	1534.654	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	757	189	528	1020	0.742	873	650	32.2	3.1	40.345	E
2 - Purbrook Way (E)	702	176	318	926	0.759	912	1083	65.9	13.5	162.259	F
3 - Crookhorn Lane (S)	278	69	983	300	0.925	296	248	71.3	66.7	839.983	F
4 - Stakes Road (W)	499	125	722	456	1.094	456	557	211.1	221.9	1717.991	F

2020 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	385.50	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-36	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2020 + devt	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	933	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	825	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	347	100.000
4 - Stakes Road (W)		ONE HOUR	✓	618	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	8	620	143	162
	2 - Purbrook Way (E)	402	13	84	326
	3 - Crookhorn Lane (S)	150	137	1	59
	4 - Stakes Road (W)	80	499	37	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	1	8	1
	2 - Purbrook Way (E)	1	0	5	3
	3 - Crookhorn Lane (S)	10	4	0	8
	4 - Stakes Road (W)	3	3	19	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	1.02	95.38	27.7	F	856	1284
2 - Purbrook Way (E)	1.02	101.09	26.1	F	757	1136
3 - Crookhorn Lane (S)	1.25	453.58	42.7	F	318	478
4 - Stakes Road (W)	1.47	1149.33	154.3	F	567	851

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	702	176	498	1038	0.677	694	473	0.0	2.0	10.253	B
2 - Purbrook Way (E)	621	155	262	963	0.645	614	930	0.0	1.8	10.123	B
3 - Crookhorn Lane (S)	261	65	679	407	0.643	255	196	0.0	1.7	22.792	C
4 - Stakes Road (W)	465	116	526	529	0.880	444	408	0.0	5.3	36.633	E

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	839	210	549	1003	0.836	829	557	2.0	4.5	19.593	C
2 - Purbrook Way (E)	742	185	309	928	0.799	734	1069	1.8	3.6	17.897	C
3 - Crookhorn Lane (S)	312	78	812	360	0.866	300	231	1.7	4.5	52.447	F
4 - Stakes Road (W)	556	139	626	491	1.131	480	487	5.3	24.1	131.222	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1027	257	541	1009	1.019	970	618	4.5	18.9	56.480	F
2 - Purbrook Way (E)	908	227	356	894	1.016	855	1155	3.6	17.1	57.452	F
3 - Crookhorn Lane (S)	382	96	946	313	1.221	306	264	4.5	23.4	191.161	F
4 - Stakes Road (W)	680	170	693	467	1.458	466	560	24.1	77.7	409.207	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1027	257	539	1010	1.017	992	625	18.9	27.7	95.381	F
2 - Purbrook Way (E)	908	227	363	889	1.022	872	1168	17.1	26.1	101.092	F
3 - Crookhorn Lane (S)	382	96	966	306	1.249	305	270	23.4	42.7	404.923	F
4 - Stakes Road (W)	680	170	700	464	1.467	464	570	77.7	131.9	823.126	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	839	210	548	1004	0.836	925	611	27.7	6.1	57.086	F
2 - Purbrook Way (E)	742	185	341	905	0.819	825	1132	26.1	5.4	57.707	F
3 - Crookhorn Lane (S)	312	78	911	325	0.959	325	255	42.7	39.4	453.577	F
4 - Stakes Road (W)	556	139	693	466	1.192	466	543	131.9	154.3	1108.953	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	702	176	581	981	0.716	716	546	6.1	2.6	14.230	B

2 - Purbrook Way (E)	621	155	272	956	0.650	635	1026	5.4	1.9	11.689	B
3 - Crookhorn Lane (S)	261	65	703	398	0.656	389	204	39.4	7.5	227.690	F
4 - Stakes Road (W)	465	116	648	481	0.967	478	443	154.3	151.0	1149.328	F

2025 + devt, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	668.29	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-41	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2025 + devt	AM	ONE HOUR	07:45	09:15	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	1012	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	943	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	370	100.000
4 - Stakes Road (W)		ONE HOUR	✓	668	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	9	679	152	172
	2 - Purbrook Way (E)	470	14	90	369
	3 - Crookhorn Lane (S)	160	146	1	63
	4 - Stakes Road (W)	86	541	39	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	1	7	1
	2 - Purbrook Way (E)	1	0	6	3
	3 - Crookhorn Lane (S)	10	4	0	10
	4 - Stakes Road (W)	2	3	21	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	1.10	181.51	60.9	F	929	1393
2 - Purbrook Way (E)	1.17	324.99	84.2	F	865	1298
3 - Crookhorn Lane (S)	1.37	863.59	73.0	F	340	509
4 - Stakes Road (W)	1.60	1756.22	227.8	F	613	919

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	762	190	519	1025	0.743	751	530	0.0	2.7	12.683	B
2 - Purbrook Way (E)	710	177	276	952	0.746	699	994	0.0	2.8	13.673	B
3 - Crookhorn Lane (S)	279	70	768	374	0.744	268	207	0.0	2.5	31.572	D
4 - Stakes Road (W)	503	126	588	506	0.994	461	448	0.0	10.4	59.193	F

08:00 - 08:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	910	227	540	1011	0.900	893	611	2.7	6.9	27.197	D
2 - Purbrook Way (E)	848	212	323	918	0.924	826	1109	2.8	8.1	33.345	D
3 - Crookhorn Lane (S)	333	83	909	325	1.023	302	241	2.5	10.1	100.354	F
4 - Stakes Road (W)	601	150	683	470	1.277	467	528	10.4	43.7	227.991	F

08:15 - 08:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1114	279	533	1016	1.097	1000	638	6.9	35.5	89.602	F
2 - Purbrook Way (E)	1038	260	358	892	1.163	884	1175	8.1	46.6	124.968	F
3 - Crookhorn Lane (S)	407	102	980	300	1.358	298	262	10.1	37.5	312.611	F
4 - Stakes Road (W)	735	184	710	461	1.597	460	568	43.7	112.5	624.006	F

08:30 - 08:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	1114	279	532	1016	1.097	1013	640	35.5	60.9	181.504	F
2 - Purbrook Way (E)	1038	260	362	889	1.167	888	1182	46.6	84.2	274.547	F
3 - Crookhorn Lane (S)	407	102	986	298	1.367	298	264	37.5	64.9	636.356	F
4 - Stakes Road (W)	735	184	712	460	1.599	460	572	112.5	181.4	1161.050	F

08:45 - 09:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	910	227	533	1015	0.896	999	638	60.9	38.6	181.506	F
2 - Purbrook Way (E)	848	212	358	893	0.950	882	1174	84.2	75.5	324.990	F
3 - Crookhorn Lane (S)	333	83	978	301	1.106	300	262	64.9	73.0	844.788	F
4 - Stakes Road (W)	601	150	711	460	1.305	460	567	181.4	216.5	1569.642	F

09:00 - 09:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	762	190	530	1018	0.749	903	645	38.6	3.3	55.706	F

2 - Purbrook Way (E)	710	177	326	916	0.775	904	1107	75.5	27.1	208.237	F
3 - Crookhorn Lane (S)	279	70	980	300	0.929	296	249	73.0	68.8	863.590	F
4 - Stakes Road (W)	503	126	717	458	1.098	458	559	216.5	227.8	1756.219	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Arcady - Stakes Road roundabout PM with IC (v2 March2021).j9
Path: H:\LIDLPurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Arcady - Stakes hill roundabout
Report generation date: 19/03/2021 10:28:09

»2020 baseline, PM
»2025 baseline, PM
»2020 + devt, PM
»2025 + devt, PM

Summary of junction performance

	PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
2020 baseline						
1 - Stakes Hill Road (N)	D7	2.1	10.54	0.68	B	-22 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		65.3	183.51	1.10	F	
3 - Crookhorn Lane (S)		17.7	169.05	1.04	F	
4 - Stakes Road (W)		41.6	270.66	1.13	F	
2025 baseline						
1 - Stakes Hill Road (N)	D8	3.1	14.31	0.76	B	-29 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		129.7	414.67	1.23	F	
3 - Crookhorn Lane (S)		28.3	273.37	1.11	F	
4 - Stakes Road (W)		78.9	551.97	1.25	F	
2020 + devt						
1 - Stakes Hill Road (N)	D9	2.2	10.99	0.69	B	-23 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		78.2	215.29	1.13	F	
3 - Crookhorn Lane (S)		18.9	178.73	1.05	F	
4 - Stakes Road (W)		48.4	327.30	1.16	F	
2025 + devt						
1 - Stakes Hill Road (N)	D10	3.3	15.11	0.77	C	-30 % [4 - Stakes Road (W)]
2 - Purbrook Way (E)		145.0	472.64	1.25	F	
3 - Crookhorn Lane (S)		29.7	290.19	1.12	F	
4 - Stakes Road (W)		89.9	620.38	1.28	F	

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. 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	Stakes Hill roundabout
Location	Purbrook Way
Site number	
Date	10/08/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	B/LidlPurbrookWay.1
Enumerator	MAYERBROWN2K\hiorwerth
Description	Advice from TRL regarding modelling unusal arrangement: I have to admit that these are always tricky to both measure and decide how best to model so there is no definite answer – just intelligent decisions and some pragmatism. Where there is any hatching between lanes on an approach we tend to recommend that you try your best to construct draw the construction lines as if the hatching is invisible to you – so using the median line of the approaching Arm and the kerb line etc. Then try to take off from one side or the other (kerb or median line the space used up by the hatching. Then take the measurements from these repositioned construction lines – in the normal way. I hope that makes some kind of sense. Also any physical evidence of existing situation where vehicles are clearly ignoring hatching – e.g. cutting corner on the nearside hatching is justification for including that part within the measurements – No such situation in the case below by the look of it. As for the fact that the left turns are to some extend bypassing the roundabout, we tend to recommend to stay with what is likely to be pessimistic result, by assuming traffic that is turning left is still yielding (as normal) to the full circulating traffic flow. If you are able to collect decent quality local data, there is scope here to adjust for any benefit that comes from the arrangement you have in your junction where traffic probably can pull out from the nearside kerb-side lane more readily than is usually the case. Regards, Jim Jim Binning BSc (Hons) MCIHT Product Owner, TRL Software

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	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)	Run automatically
D6	2020 observed	PM	ONE HOUR	16:15	17:45	15	
D7	2020 baseline	PM	ONE HOUR	16:15	17:45	15	✓
D8	2025 baseline	PM	ONE HOUR	16:15	17:45	15	✓
D9	2020 + devt	PM	ONE HOUR	16:15	17:45	15	✓
D10	2025 + devt	PM	ONE HOUR	16:15	17:45	15	✓

Analysis Set Details

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

2020 baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	156.01	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-22	4 - Stakes Road (W)

Arms

Arms

Arm	Name	Description
1	Stakes Hill Road (N)	
2	Purbrook Way (E)	
3	Crookhorn Lane (S)	
4	Stakes Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Stakes Hill Road (N)	4.00	6.80	14.0	21.0	26.0	32.0	
2 - Purbrook Way (E)	5.10	7.10	53.0	14.0	26.0	32.0	
3 - Crookhorn Lane (S)	3.00	3.30	9.0	3.0	26.0	31.0	
4 - Stakes Road (W)	3.25	3.25	0.0	3.0	26.0	27.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Stakes Hill Road (N)	Direct		-325
2 - Purbrook Way (E)	Direct		-681
3 - Crookhorn Lane (S)	Direct		66
4 - Stakes Road (W)	Direct		101

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Stakes Hill Road (N)	0.664	1396
2 - Purbrook Way (E)	0.720	1347
3 - Crookhorn Lane (S)	0.371	779
4 - Stakes Road (W)	0.377	823

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2020 baseline	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	648	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	1059	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	344	100.000
4 - Stakes Road (W)		ONE HOUR	✓	534	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	8	353	179	108
	2 - Purbrook Way (E)	448	7	118	486
	3 - Crookhorn Lane (S)	196	82	0	66
	4 - Stakes Road (W)	163	331	39	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	25	1	7	2
	2 - Purbrook Way (E)	1	14	6	0
	3 - Crookhorn Lane (S)	4	2	0	11
	4 - Stakes Road (W)	2	2	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.68	10.54	2.1	B	595	892
2 - Purbrook Way (E)	1.10	183.51	65.3	F	972	1458
3 - Crookhorn Lane (S)	1.04	169.05	17.7	F	316	473
4 - Stakes Road (W)	1.13	270.66	41.6	F	490	735

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	488	122	340	1128	0.432	485	605	0.0	0.8	5.572	A
2 - Purbrook Way (E)	797	199	250	1141	0.699	788	574	0.0	2.2	9.964	A
3 - Crookhorn Lane (S)	259	65	788	461	0.561	254	251	0.0	1.2	16.994	C
4 - Stakes Road (W)	402	101	550	594	0.677	394	492	0.0	2.0	17.417	C

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	583	146	404	1085	0.537	581	720	0.8	1.1	7.116	A
2 - Purbrook Way (E)	952	238	300	1104	0.862	939	685	2.2	5.4	20.437	C
3 - Crookhorn Lane (S)	309	77	940	407	0.759	303	299	1.2	2.8	32.756	D
4 - Stakes Road (W)	480	120	656	554	0.866	468	587	2.0	5.0	37.380	E

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	713	178	445	1058	0.674	710	801	1.1	2.0	10.244	B
2 - Purbrook Way (E)	1166	291	362	1057	1.103	1040	793	5.4	36.9	86.008	F
3 - Crookhorn Lane (S)	379	95	1052	367	1.032	344	349	2.8	11.4	96.895	F
4 - Stakes Road (W)	588	147	734	525	1.120	512	663	5.0	23.8	120.878	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	713	178	450	1054	0.677	713	813	2.0	2.1	10.541	B
2 - Purbrook Way (E)	1166	291	363	1056	1.105	1052	800	36.9	65.3	183.514	F
3 - Crookhorn Lane (S)	379	95	1064	363	1.044	353	352	11.4	17.7	169.050	F
4 - Stakes Road (W)	588	147	747	520	1.131	517	671	23.8	41.6	243.769	F

17:15 - 17:30

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queu	End queu	Delay (s)	Unsignalised level of service

	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Stakes Hill Road (N)	583	146	441	1061	0.549	586	816	2.1	1.2	7.633	A
2 - Purbrook Way (E)	952	238	305	1100	0.866	1083	722	65.3	32.5	165.137	F
3 - Crookhorn Lane (S)	309	77	1068	361	0.856	344	320	17.7	8.9	150.042	F
4 - Stakes Road (W)	480	120	751	519	0.926	506	662	41.6	35.0	270.661	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	488	122	442	1060	0.460	489	719	1.2	0.9	6.328	A
2 - Purbrook Way (E)	797	199	262	1132	0.705	917	669	32.5	2.5	26.847	D
3 - Crookhorn Lane (S)	259	65	903	420	0.616	288	276	8.9	1.7	32.179	D
4 - Stakes Road (W)	402	101	633	563	0.714	529	559	35.0	3.2	124.601	F

2025 baseline, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	321.44	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-29	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2025 baseline	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	730	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	1161	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	365	100.000
4 - Stakes Road (W)		ONE HOUR	✓	586	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	9	416	190	115
	2 - Purbrook Way (E)	500	8	125	528
	3 - Crookhorn Lane (S)	208	87	0	70
	4 - Stakes Road (W)	172	372	41	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	22	1	6	2
	2 - Purbrook Way (E)	1	13	6	0
	3 - Crookhorn Lane (S)	4	2	0	11
	4 - Stakes Road (W)	2	2	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.76	14.31	3.1	B	670	1005
2 - Purbrook Way (E)	1.23	414.67	129.7	F	1065	1598
3 - Crookhorn Lane (S)	1.11	273.37	28.3	F	335	502
4 - Stakes Road (W)	1.25	551.97	78.9	F	538	807

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service

1 - Stakes Hill Road (N)	550	137	373	1110	0.495	546	657	0.0	1.0	6.340	A
2 - Purbrook Way (E)	874	219	266	1131	0.773	861	653	0.0	3.2	12.820	B
3 - Crookhorn Lane (S)	275	69	862	435	0.632	268	265	0.0	1.6	20.874	C
4 - Stakes Road (W)	441	110	600	574	0.768	429	530	0.0	3.0	23.240	C

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	656	164	433	1070	0.614	654	770	1.0	1.6	8.611	A
2 - Purbrook Way (E)	1044	261	317	1092	0.956	1012	770	3.2	11.1	35.629	E
3 - Crookhorn Lane (S)	328	82	1015	380	0.862	317	314	1.6	4.5	49.253	E
4 - Stakes Road (W)	527	132	707	535	0.985	497	625	3.0	10.5	66.082	F

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	804	201	455	1055	0.762	798	809	1.6	3.0	13.678	B
2 - Purbrook Way (E)	1278	320	380	1044	1.224	1040	873	11.1	70.7	152.703	F
3 - Crookhorn Lane (S)	402	100	1064	363	1.108	351	356	4.5	17.3	136.139	F
4 - Stakes Road (W)	645	161	748	519	1.243	515	667	10.5	43.0	204.980	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	804	201	457	1054	0.763	803	814	3.0	3.1	14.308	B
2 - Purbrook Way (E)	1278	320	383	1043	1.226	1042	878	70.7	129.7	349.736	F
3 - Crookhorn Lane (S)	402	100	1067	362	1.111	358	357	17.3	28.3	250.528	F
4 - Stakes Road (W)	645	161	755	516	1.250	516	670	43.0	75.4	426.964	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	656	164	452	1057	0.621	662	821	3.1	1.7	9.241	A
2 - Purbrook Way (E)	1044	261	321	1088	0.959	1080	793	129.7	120.7	414.670	F
3 - Crookhorn Lane (S)	328	82	1077	358	0.916	346	324	28.3	23.8	273.369	F

4 - Stakes Road (W)	527	132	760	515	1.024	513	663	75.4	78.9	551.970	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	550	137	445	1061	0.518	552	829	1.7	1.1	7.097	A
2 - Purbrook Way (E)	874	219	274	1124	0.778	1115	724	120.7	60.5	294.442	F
3 - Crookhorn Lane (S)	275	69	1089	354	0.776	340	299	23.8	7.5	177.119	F
4 - Stakes Road (W)	441	110	769	511	0.863	505	660	78.9	62.9	506.848	F

2020 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	182.36	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2020 + devt	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	658	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	1084	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	346	100.000
4 - Stakes Road (W)		ONE HOUR	✓	546	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	8	363	179	108
	2 - Purbrook Way (E)	459	7	120	498
	3 - Crookhorn Lane (S)	196	84	0	66
	4 - Stakes Road (W)	163	343	39	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	25	1	7	2
	2 - Purbrook Way (E)	1	14	6	0
	3 - Crookhorn Lane (S)	4	2	0	11
	4 - Stakes Road (W)	2	2	15	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.69	10.99	2.2	B	604	906
2 - Purbrook Way (E)	1.13	215.29	78.2	F	995	1492
3 - Crookhorn Lane (S)	1.05	178.73	18.9	F	317	476
4 - Stakes Road (W)	1.16	327.30	48.4	F	501	752

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	495	124	350	1122	0.442	492	612	0.0	0.8	5.690	A
2 - Purbrook Way (E)	816	204	250	1141	0.715	806	592	0.0	2.4	10.467	B
3 - Crookhorn Lane (S)	260	65	805	456	0.572	255	252	0.0	1.3	17.574	C
4 - Stakes Road (W)	411	103	559	590	0.696	402	501	0.0	2.1	18.414	C

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	592	148	414	1079	0.548	590	728	0.8	1.2	7.337	A
2 - Purbrook Way (E)	974	244	299	1104	0.883	959	705	2.4	6.2	22.754	C
3 - Crookhorn Lane (S)	311	78	958	401	0.776	304	301	1.3	3.0	35.027	E
4 - Stakes Road (W)	491	123	666	551	0.892	476	596	2.1	5.8	41.937	E

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	724	181	451	1054	0.687	721	800	1.2	2.1	10.674	B
2 - Purbrook Way (E)	1194	298	361	1058	1.128	1045	811	6.2	43.4	97.932	F
3 - Crookhorn Lane (S)	381	95	1057	365	1.043	344	348	3.0	12.1	101.954	F
4 - Stakes Road (W)	601	150	737	524	1.148	514	665	5.8	27.5	135.949	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	724	181	456	1051	0.689	724	810	2.1	2.2	10.991	B
2 - Purbrook Way (E)	1194	298	363	1056	1.130	1054	817	43.4	78.2	215.294	F
3 - Crookhorn Lane (S)	381	95	1066	362	1.052	354	351	12.1	18.9	178.729	F
4 - Stakes Road (W)	601	150	748	519	1.157	517	672	27.5	48.4	279.672	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	592	148	447	1057	0.560	595	815	2.2	1.3	7.846	A
2 - Purbrook Way (E)	974	244	304	1101	0.885	1087	738	78.2	50.2	213.899	F
3 - Crookhorn Lane (S)	311	78	1072	360	0.864	346	318	18.9	10.1	164.024	F
4 - Stakes Road (W)	491	123	755	517	0.949	507	664	48.4	44.4	327.298	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	495	124	453	1053	0.470	497	757	1.3	0.9	6.492	A

2 - Purbrook Way (E)	816	204	262	1132	0.721	1005	688	50.2	2.8	60.703	F
3 - Crookhorn Lane (S)	260	65	983	392	0.664	292	285	10.1	2.2	44.195	E
4 - Stakes Road (W)	411	103	675	547	0.751	535	600	44.4	13.3	201.311	F

2025 + devt, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	362.23	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-30	4 - Stakes Road (W)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2025 + devt	PM	ONE HOUR	16:15	17:45	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	740	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	1186	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	367	100.000
4 - Stakes Road (W)		ONE HOUR	✓	598	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	9	426	190	115
	2 - Purbrook Way (E)	511	8	127	540
	3 - Crookhorn Lane (S)	208	89	0	70
	4 - Stakes Road (W)	172	384	41	1

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	22	1	6	2
	2 - Purbrook Way (E)	1	13	6	0
	3 - Crookhorn Lane (S)	4	2	0	11
	4 - Stakes Road (W)	2	2	17	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.77	15.11	3.3	C	679	1019
2 - Purbrook Way (E)	1.25	472.64	145.0	F	1088	1632
3 - Crookhorn Lane (S)	1.12	290.19	29.7	F	337	505
4 - Stakes Road (W)	1.28	620.38	89.9	F	549	823

Main Results for each time segment

16:15 - 16:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	557	139	383	1104	0.505	553	664	0.0	1.0	6.492	A
2 - Purbrook Way (E)	893	223	265	1131	0.790	879	670	0.0	3.5	13.628	B
3 - Crookhorn Lane (S)	276	69	878	429	0.644	270	266	0.0	1.7	21.715	C
4 - Stakes Road (W)	450	113	609	571	0.788	437	538	0.0	3.3	24.899	C

16:30 - 16:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	665	166	441	1065	0.625	663	774	1.0	1.6	8.894	A
2 - Purbrook Way (E)	1066	267	316	1092	0.976	1027	787	3.5	13.3	40.582	E
3 - Crookhorn Lane (S)	330	82	1029	376	0.878	317	314	1.7	4.9	52.757	F
4 - Stakes Road (W)	538	134	714	532	1.010	501	632	3.3	12.4	74.553	F

16:45 - 17:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	815	204	460	1052	0.774	808	806	1.6	3.2	14.381	B
2 - Purbrook Way (E)	1306	326	379	1045	1.249	1042	889	13.3	79.3	170.672	F
3 - Crookhorn Lane (S)	404	101	1067	362	1.116	351	354	4.9	18.1	142.379	F
4 - Stakes Road (W)	658	165	750	518	1.270	516	668	12.4	48.1	228.608	F

17:00 - 17:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	815	204	461	1051	0.775	814	810	3.2	3.3	15.108	C
2 - Purbrook Way (E)	1306	326	382	1043	1.252	1043	894	79.3	145.0	389.492	F
3 - Crookhorn Lane (S)	404	101	1069	361	1.119	358	356	18.1	29.7	261.838	F
4 - Stakes Road (W)	658	165	756	516	1.276	516	671	48.1	83.8	473.656	F

17:15 - 17:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	665	166	457	1054	0.631	672	818	3.3	1.8	9.554	A
2 - Purbrook Way (E)	1066	267	321	1089	0.979	1081	807	145.0	141.2	472.636	F
3 - Crookhorn Lane (S)	330	82	1079	358	0.922	346	323	29.7	25.7	290.190	F
4 - Stakes Road (W)	538	134	761	514	1.045	513	664	83.8	89.9	620.382	F

17:30 - 17:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	557	139	450	1059	0.526	560	826	1.8	1.1	7.250	A

2 - Purbrook Way (E)	893	223	273	1125	0.794	1117	737	141.2	85.2	366.417	F
3 - Crookhorn Lane (S)	276	69	1092	353	0.782	340	298	25.7	9.7	196.866	F
4 - Stakes Road (W)	450	113	771	511	0.881	505	661	89.9	76.1	591.999	F

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462
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Filename: Arcady - Stakes Road roundabout SATURDAY with IC (v2 March2021).j9
Path: H:\LIDLPurbrookWay.1 & 2.1\05 Calculations\Junction modelling\Arcady - Stakes hill roundabout
Report generation date: 19/03/2021 10:31:16

»2020 uplifted, SAT
»2025 baseline, SAT
»2020 + devt, SAT
»2025 + devt, SAT

Summary of junction performance

	SAT					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2020 uplifted					
1 - Stakes Hill Road (N)	D12	3.0	19.02	0.76	C	-7 % [3 - Crookhorn Lane (S)]
2 - Purbrook Way (E)		8.0	41.24	0.91	E	
3 - Crookhorn Lane (S)		4.0	53.50	0.83	F	
4 - Stakes Road (W)		6.0	45.38	0.88	E	
	2025 baseline					
1 - Stakes Hill Road (N)	D13	4.4	26.49	0.83	D	-13 % [3 - Crookhorn Lane (S)]
2 - Purbrook Way (E)		16.7	77.52	0.99	F	
3 - Crookhorn Lane (S)		6.7	84.28	0.91	F	
4 - Stakes Road (W)		10.6	74.00	0.95	F	
	2020 + devt					
1 - Stakes Hill Road (N)	D14	3.6	22.32	0.79	C	-10 % [3 - Crookhorn Lane (S)]
2 - Purbrook Way (E)		12.3	59.55	0.95	F	
3 - Crookhorn Lane (S)		4.8	63.87	0.86	F	
4 - Stakes Road (W)		8.2	59.97	0.92	F	
	2025 + devt					
1 - Stakes Hill Road (N)	D15	5.3	31.59	0.86	D	-15 % [3 - Crookhorn Lane (S)]
2 - Purbrook Way (E)		26.8	111.78	1.03	F	
3 - Crookhorn Lane (S)		7.9	97.71	0.94	F	
4 - Stakes Road (W)		15.0	98.06	0.99	F	

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. 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	Stakes Hill roundabout
Location	Purbrook Way
Site number	
Date	10/08/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	B/LidlPurbrookWay.1
Enumerator	MAYERBROWN2K\hiorwerth
Description	Advice from TRL regarding modelling unusal arrangement: I have to admit that these are always tricky to both measure and decide how best to model so there is no definite answer – just intelligent decisions and some pragmatism. Where there is any hatching between lanes on an approach we tend to recommend that you try your best to construct draw the construction lines as if the hatching is invisible to you – so using the median line of the approaching Arm and the kerb line etc. Then try to take off from one side or the other (kerb or median line the space used up by the hatching. Then take the measurements from these repositioned construction lines – in the normal way. I hope that makes some kind of sense. Also any physical evidence of existing situation where vehicles are clearly ignoring hatching – e.g. cutting corner on the nearside hatching is justification for including that part within the measurements – No such situation in the case below by the look of it. As for the fact that the left turns are to some extend bypassing the roundabout, we tend to recommend to stay with what is likely to be pessimistic result, by assuming traffic that is turning left is still yielding (as normal) to the full circulating traffic flow. If you are able to collect decent quality local data, there is scope here to adjust for any benefit that comes from the arrangement you have in your junction where traffic probably can pull out from the nearside kerb-side lane more readily than is usually the case. Regards, Jim Jim Binning BSc (Hons) MCIHT Product Owner, TRL Software

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

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75			✓	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)	Run automatically
D11	2020 observed	SAT	ONE HOUR	11:30	13:00	15	
D12	2020 uplifted	SAT	ONE HOUR	11:30	13:00	15	✓
D13	2025 baseline	SAT	ONE HOUR	11:30	13:00	15	✓
D14	2020 + devt	SAT	ONE HOUR	11:30	13:00	15	✓
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15	✓

Analysis Set Details

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

2020 uplifted, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	37.82	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	3 - Crookhorn Lane (S)

Arms

Arms

Arm	Name	Description
1	Stakes Hill Road (N)	
2	Purbrook Way (E)	
3	Crookhorn Lane (S)	
4	Stakes Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Stakes Hill Road (N)	4.00	6.80	14.0	21.0	26.0	32.0	
2 - Purbrook Way (E)	5.10	7.10	53.0	14.0	26.0	32.0	
3 - Crookhorn Lane (S)	3.00	3.30	9.0	3.0	26.0	31.0	
4 - Stakes Road (W)	3.25	3.25	0.0	3.0	26.0	27.0	

Slope / Intercept / Capacity

Arm Intercept Adjustments

Arm	Type	Reason	Direct intercept adjustment (PCU/hr)
1 - Stakes Hill Road (N)	Direct		-610
2 - Purbrook Way (E)	Direct		-965
3 - Crookhorn Lane (S)	Direct		-67
4 - Stakes Road (W)	Direct		78

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Stakes Hill Road (N)	0.664	1112
2 - Purbrook Way (E)	0.720	1063
3 - Crookhorn Lane (S)	0.371	646
4 - Stakes Road (W)	0.377	801

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2020 uplifted	SAT	ONE HOUR	11:30	13:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	535	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	680	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	263	100.000
4 - Stakes Road (W)		ONE HOUR	✓	464	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	1	301	132	101
	2 - Purbrook Way (E)	292	1	87	300
	3 - Crookhorn Lane (S)	130	74	1	58
	4 - Stakes Road (W)	101	309	52	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	0	5	0
	2 - Purbrook Way (E)	0	0	2	0
	3 - Crookhorn Lane (S)	4	3	0	3
	4 - Stakes Road (W)	1	1	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.76	19.02	3.0	C	491	736
2 - Purbrook Way (E)	0.91	41.24	8.0	E	624	936
3 - Crookhorn Lane (S)	0.83	53.50	4.0	F	241	362
4 - Stakes Road (W)	0.88	45.38	6.0	E	426	639

Main Results for each time segment

11:30 - 11:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	403	101	326	880	0.458	399	390	0.0	0.8	7.449	A
2 - Purbrook Way (E)	512	128	216	900	0.569	507	510	0.0	1.3	9.046	A
3 - Crookhorn Lane (S)	198	50	520	438	0.452	195	203	0.0	0.8	14.596	B
4 - Stakes Road (W)	349	87	371	647	0.540	345	343	0.0	1.1	11.740	B

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	481	120	391	836	0.576	479	468	0.8	1.3	10.037	B
2 - Purbrook Way (E)	611	153	259	868	0.704	607	612	1.3	2.3	13.613	B
3 - Crookhorn Lane (S)	236	59	623	401	0.589	234	243	0.8	1.4	21.233	C
4 - Stakes Road (W)	417	104	445	619	0.674	414	412	1.1	2.0	17.252	C

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	589	147	471	783	0.753	583	562	1.3	2.8	17.526	C
2 - Purbrook Way (E)	749	187	314	827	0.906	730	740	2.3	6.9	32.386	D
3 - Crookhorn Lane (S)	290	72	750	356	0.814	281	294	1.4	3.5	43.854	E
4 - Stakes Road (W)	511	128	535	586	0.873	498	496	2.0	5.2	36.538	E

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	589	147	480	776	0.759	588	573	2.8	3.0	19.023	C
2 - Purbrook Way (E)	749	187	318	824	0.909	744	751	6.9	8.0	41.244	E
3 - Crookhorn Lane (S)	290	72	764	351	0.825	287	298	3.5	4.0	53.499	F
4 - Stakes Road (W)	511	128	546	581	0.879	508	505	5.2	6.0	45.377	E

12:30 - 12:45

Arm	Total Demand	Junction	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit	Start queu	End queu	Delay (s)	Unsignalised level of service

	(Veh/hr)	Arrivals (Veh)					side) (Veh/hr)	e (Veh)	e (Veh)		
1 - Stakes Hill Road (N)	481	120	409	824	0.584	487	488	3.0	1.4	10.882	B
2 - Purbrook Way (E)	611	153	264	864	0.708	633	632	8.0	2.6	16.928	C
3 - Crookhorn Lane (S)	236	59	647	393	0.602	246	251	4.0	1.6	25.905	D
4 - Stakes Road (W)	417	104	465	612	0.682	432	427	6.0	2.3	21.480	C

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	403	101	335	874	0.461	405	399	1.4	0.9	7.718	A
2 - Purbrook Way (E)	512	128	219	897	0.571	517	521	2.6	1.4	9.577	A
3 - Crookhorn Lane (S)	198	50	529	435	0.455	201	206	1.6	0.9	15.577	C
4 - Stakes Road (W)	349	87	380	644	0.543	354	350	2.3	1.2	12.582	B

2025 baseline, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	63.54	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-13	3 - Crookhorn Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2025 baseline	SAT	ONE HOUR	11:30	13:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	571	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	724	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	280	100.000
4 - Stakes Road (W)		ONE HOUR	✓	494	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	1	321	141	108
	2 - Purbrook Way (E)	311	1	93	319
	3 - Crookhorn Lane (S)	138	79	1	62
	4 - Stakes Road (W)	108	329	55	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	0	5	0
	2 - Purbrook Way (E)	0	0	2	0
	3 - Crookhorn Lane (S)	4	3	0	3
	4 - Stakes Road (W)	1	1	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.83	26.49	4.4	D	524	786
2 - Purbrook Way (E)	0.99	77.52	16.7	F	664	997
3 - Crookhorn Lane (S)	0.91	84.28	6.7	F	257	385
4 - Stakes Road (W)	0.95	74.00	10.6	F	453	680

Main Results for each time segment

11:30 - 11:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service

1 - Stakes Hill Road (N)	430	107	346	866	0.496	426	414	0.0	1.0	8.114	A
2 - Purbrook Way (E)	545	136	230	889	0.613	539	543	0.0	1.5	10.103	B
3 - Crookhorn Lane (S)	211	53	552	427	0.494	207	216	0.0	0.9	16.136	C
4 - Stakes Road (W)	372	93	394	638	0.583	367	365	0.0	1.3	12.999	B

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	513	128	415	820	0.626	511	497	1.0	1.6	11.553	B
2 - Purbrook Way (E)	651	163	275	855	0.761	645	651	1.5	3.0	16.673	C
3 - Crookhorn Lane (S)	252	63	662	388	0.650	249	259	0.9	1.7	25.334	D
4 - Stakes Road (W)	444	111	472	609	0.729	440	438	1.3	2.5	20.683	C

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	629	157	493	768	0.819	619	587	1.6	4.0	22.880	C
2 - Purbrook Way (E)	797	199	332	813	0.981	760	779	3.0	12.2	49.274	E
3 - Crookhorn Lane (S)	308	77	783	344	0.896	294	310	1.7	5.2	60.086	F
4 - Stakes Road (W)	544	136	558	577	0.943	521	519	2.5	8.1	51.077	F

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	629	157	505	760	0.828	627	602	4.0	4.4	26.488	D
2 - Purbrook Way (E)	797	199	337	809	0.985	779	795	12.2	16.7	77.522	F
3 - Crookhorn Lane (S)	308	77	801	338	0.913	302	315	5.2	6.7	84.280	F
4 - Stakes Road (W)	544	136	572	571	0.952	534	531	8.1	10.6	73.999	F

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	513	128	448	798	0.643	523	539	4.4	1.9	13.547	B
2 - Purbrook Way (E)	651	163	285	848	0.767	703	686	16.7	3.6	31.344	D
3 - Crookhorn Lane (S)	252	63	715	368	0.683	269	273	6.7	2.4	40.669	E

4 - Stakes Road (W)	444	111	513	594	0.748	473	470	10.6	3.3	34.926	D

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	430	107	359	858	0.501	433	428	1.9	1.0	8.550	A
2 - Purbrook Way (E)	545	136	234	886	0.615	553	558	3.6	1.6	11.054	B
3 - Crookhorn Lane (S)	211	53	566	422	0.500	216	221	2.4	1.0	17.940	C
4 - Stakes Road (W)	372	93	407	633	0.587	379	375	3.3	1.5	14.536	B

2020 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	50.07	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-10	3 - Crookhorn Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2020 + devt	SAT	ONE HOUR	11:30	13:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	550	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	715	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	265	100.000
4 - Stakes Road (W)		ONE HOUR	✓	482	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	1	316	132	101
	2 - Purbrook Way (E)	307	1	89	318
	3 - Crookhorn Lane (S)	130	76	1	58
	4 - Stakes Road (W)	101	327	52	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	0	5	0
	2 - Purbrook Way (E)	0	0	2	0
	3 - Crookhorn Lane (S)	4	3	0	3
	4 - Stakes Road (W)	1	1	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.79	22.32	3.6	C	505	757
2 - Purbrook Way (E)	0.95	59.55	12.3	F	656	984
3 - Crookhorn Lane (S)	0.86	63.87	4.8	F	243	365
4 - Stakes Road (W)	0.92	59.97	8.2	F	442	663

Main Results for each time segment

11:30 - 11:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	414	104	341	870	0.476	410	401	0.0	0.9	7.774	A
2 - Purbrook Way (E)	538	135	215	900	0.598	532	536	0.0	1.4	9.651	A
3 - Crookhorn Lane (S)	200	50	544	430	0.464	196	204	0.0	0.8	15.204	C
4 - Stakes Road (W)	363	91	383	643	0.565	358	357	0.0	1.3	12.433	B

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	494	124	409	824	0.600	492	480	0.9	1.5	10.760	B
2 - Purbrook Way (E)	643	161	258	868	0.741	638	643	1.4	2.7	15.307	C
3 - Crookhorn Lane (S)	238	60	651	391	0.609	236	245	0.8	1.5	22.784	C
4 - Stakes Road (W)	433	108	460	614	0.706	429	427	1.3	2.2	19.088	C

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	606	151	488	771	0.785	598	573	1.5	3.3	19.976	C
2 - Purbrook Way (E)	787	197	313	827	0.951	759	773	2.7	9.7	41.442	E
3 - Crookhorn Lane (S)	292	73	778	346	0.843	282	294	1.5	4.0	49.594	E
4 - Stakes Road (W)	531	133	548	581	0.914	513	511	2.2	6.7	44.302	E

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	606	151	500	764	0.793	604	586	3.3	3.6	22.321	C
2 - Purbrook Way (E)	787	197	317	824	0.955	777	787	9.7	12.3	59.551	F
3 - Crookhorn Lane (S)	292	73	795	340	0.858	289	299	4.0	4.8	63.872	F
4 - Stakes Road (W)	531	133	561	576	0.922	525	522	6.7	8.2	59.970	F

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	494	124	433	808	0.612	502	511	3.6	1.6	12.062	B
2 - Purbrook Way (E)	643	161	266	863	0.745	679	670	12.3	3.1	22.903	C
3 - Crookhorn Lane (S)	238	60	690	377	0.631	250	255	4.8	1.8	30.415	D
4 - Stakes Road (W)	433	108	489	603	0.719	455	451	8.2	2.8	27.222	D

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	414	104	351	863	0.480	417	412	1.6	0.9	8.116	A

2 - Purbrook Way (E)	538	135	219	897	0.600	545	549	3.1	1.5	10.393	B
3 - Crookhorn Lane (S)	200	50	556	425	0.469	203	208	1.8	0.9	16.454	C
4 - Stakes Road (W)	363	91	394	639	0.568	368	365	2.8	1.4	13.592	B

2025 + devt, SAT

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - Purbrook Way (E) - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	84.67	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-15	3 - Crookhorn Lane (S)

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D15	2025 + devt	SAT	ONE HOUR	11:30	13:00	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
1 - Stakes Hill Road (N)		ONE HOUR	✓	586	100.000
2 - Purbrook Way (E)		ONE HOUR	✓	759	100.000
3 - Crookhorn Lane (S)		ONE HOUR	✓	282	100.000
4 - Stakes Road (W)		ONE HOUR	✓	512	100.000

Origin-Destination Data

Demand (Veh/hr)

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	1	336	141	108
	2 - Purbrook Way (E)	326	1	95	337
	3 - Crookhorn Lane (S)	138	81	1	62
	4 - Stakes Road (W)	108	347	55	2

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Stakes Hill Road (N)	2 - Purbrook Way (E)	3 - Crookhorn Lane (S)	4 - Stakes Road (W)
From	1 - Stakes Hill Road (N)	0	0	4	0
	2 - Purbrook Way (E)	0	0	2	0
	3 - Crookhorn Lane (S)	4	3	0	3
	4 - Stakes Road (W)	1	1	7	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
1 - Stakes Hill Road (N)	0.86	31.59	5.3	D	538	807
2 - Purbrook Way (E)	1.03	111.78	26.8	F	696	1045
3 - Crookhorn Lane (S)	0.94	97.71	7.9	F	259	388
4 - Stakes Road (W)	0.99	98.06	15.0	F	470	705

Main Results for each time segment

11:30 - 11:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	441	110	361	859	0.514	437	425	0.0	1.0	8.454	A
2 - Purbrook Way (E)	571	143	229	891	0.642	564	568	0.0	1.7	10.823	B
3 - Crookhorn Lane (S)	212	53	577	418	0.508	208	217	0.0	1.0	16.873	C
4 - Stakes Road (W)	385	96	406	635	0.607	380	378	0.0	1.5	13.810	B

11:45 - 12:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	527	132	432	811	0.650	524	509	1.0	1.8	12.406	B
2 - Purbrook Way (E)	682	171	275	857	0.796	675	681	1.7	3.6	19.044	C
3 - Crookhorn Lane (S)	254	63	690	377	0.672	250	260	1.0	1.9	27.475	D
4 - Stakes Road (W)	460	115	487	604	0.761	455	453	1.5	2.9	23.166	C

12:00 - 12:15

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	645	161	507	761	0.848	634	593	1.8	4.7	26.185	D
2 - Purbrook Way (E)	836	209	331	816	1.024	781	810	3.6	17.3	62.763	F
3 - Crookhorn Lane (S)	310	78	803	337	0.922	294	308	1.9	6.0	67.149	F
4 - Stakes Road (W)	564	141	567	574	0.982	533	530	2.9	10.6	61.852	F

12:15 - 12:30

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	645	161	520	752	0.858	643	607	4.7	5.3	31.587	D
2 - Purbrook Way (E)	836	209	336	812	1.030	798	827	17.3	26.8	111.779	F
3 - Crookhorn Lane (S)	310	78	820	331	0.938	303	314	6.0	7.9	97.715	F
4 - Stakes Road (W)	564	141	581	569	0.991	546	541	10.6	15.0	98.060	F

12:30 - 12:45

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	527	132	477	781	0.674	539	571	5.3	2.2	15.599	C
2 - Purbrook Way (E)	682	171	287	848	0.805	770	729	26.8	4.9	61.194	F
3 - Crookhorn Lane (S)	254	63	776	347	0.731	273	281	7.9	3.1	55.562	F
4 - Stakes Road (W)	460	115	545	583	0.790	502	503	15.0	4.4	54.866	F

12:45 - 13:00

Arm	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Circulating flow (Veh/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Throughput (exit side) (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1 - Stakes Hill Road (N)	441	110	378	848	0.521	445	443	2.2	1.1	9.043	A

2 - Purbrook Way (E)	571	143	235	887	0.645	584	588	4.9	1.9	12.319	B
3 - Crookhorn Lane (S)	212	53	595	411	0.516	220	224	3.1	1.1	19.564	C
4 - Stakes Road (W)	385	96	424	628	0.614	396	391	4.4	1.7	16.224	C

APPENDIX O: LINSIG Output – Purbrook Way / Hulbert Road Rnbt (HCC Model)

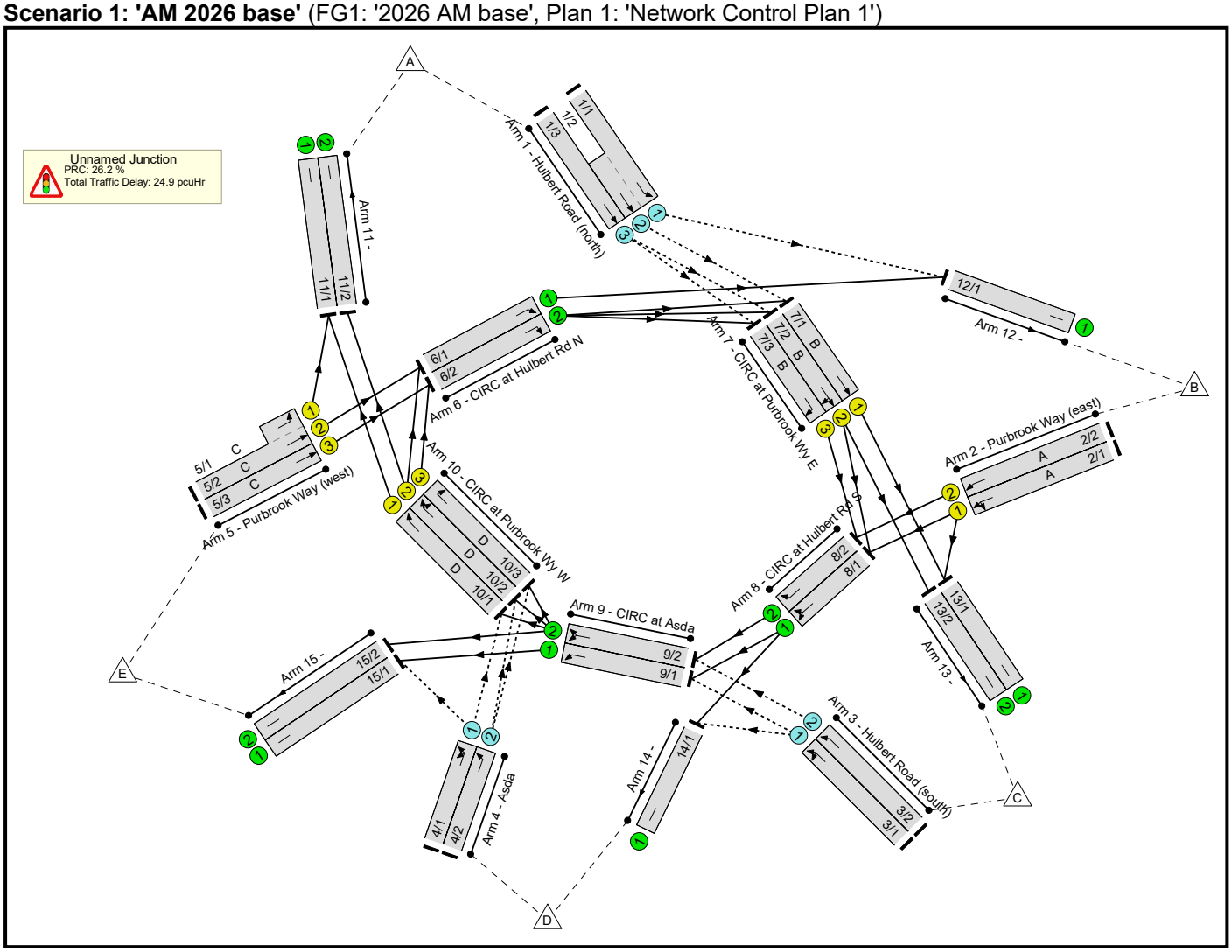
Purbrook Way gyratory

Project and User Details

Project:	**Asda roundabout**
Title:	
Location:	
Client:	Lidl
Additional detail:	Model based on Paul Basham model - Appendix T - of College Road, Campdown Transport Assessment for planning application 19/01101. Including lane lengths, give way factors, saturation flows.
File name:	LinSig- Purbrook Way gyratory based on Paul Basham model (v1 March2021).lsg3x
Author:	
Company:	
Address:	
Linsig Version:	3, 2, 40, 0

Network Layout Diagram

Scenario 1: 'AM 2026 base' (FG1: '2026 AM base', Plan 1: 'Network Control Plan 1')



Network Summary

Scenario 2: 'AM 2026 + devt' (FG2: '2026 AM with development', Plan 1: 'Network Control Plan 1')

Controller	Stream	PRC (%)	Total Delay for stream (pcuHr)
C1	1	20.42	8.93
C1	2	33.33	10.91
Total Network Delay: 26.00 pcuHr			
Worst PRC: 20.42 % (On Lane 10/2 in Stream 1)			

Scenario 3: 'PM 2026 base' (FG3: '2026 PM base', Plan 1: 'Network Control Plan 1')

Controller	Stream	PRC (%)	Total Delay for stream (pcuHr)
C1	1	5.60	13.85
C1	2	10.12	11.88
Total Network Delay: 34.52 pcuHr			
Worst PRC: 5.60 % (On Lane 5/2 in Stream 1)			

Scenario 5: 'SAT 2026 base' (FG5: '2026 Saturday base', Plan 1: 'Network Control Plan 1')

Controller	Stream	PRC (%)	Total Delay for stream (pcuHr)
C1	1	21.56	10.50
C1	2	25.47	10.10
Total Network Delay: 27.37 pcuHr			
Worst PRC: 21.56 % (On Lane 5/2 in Stream 1)			

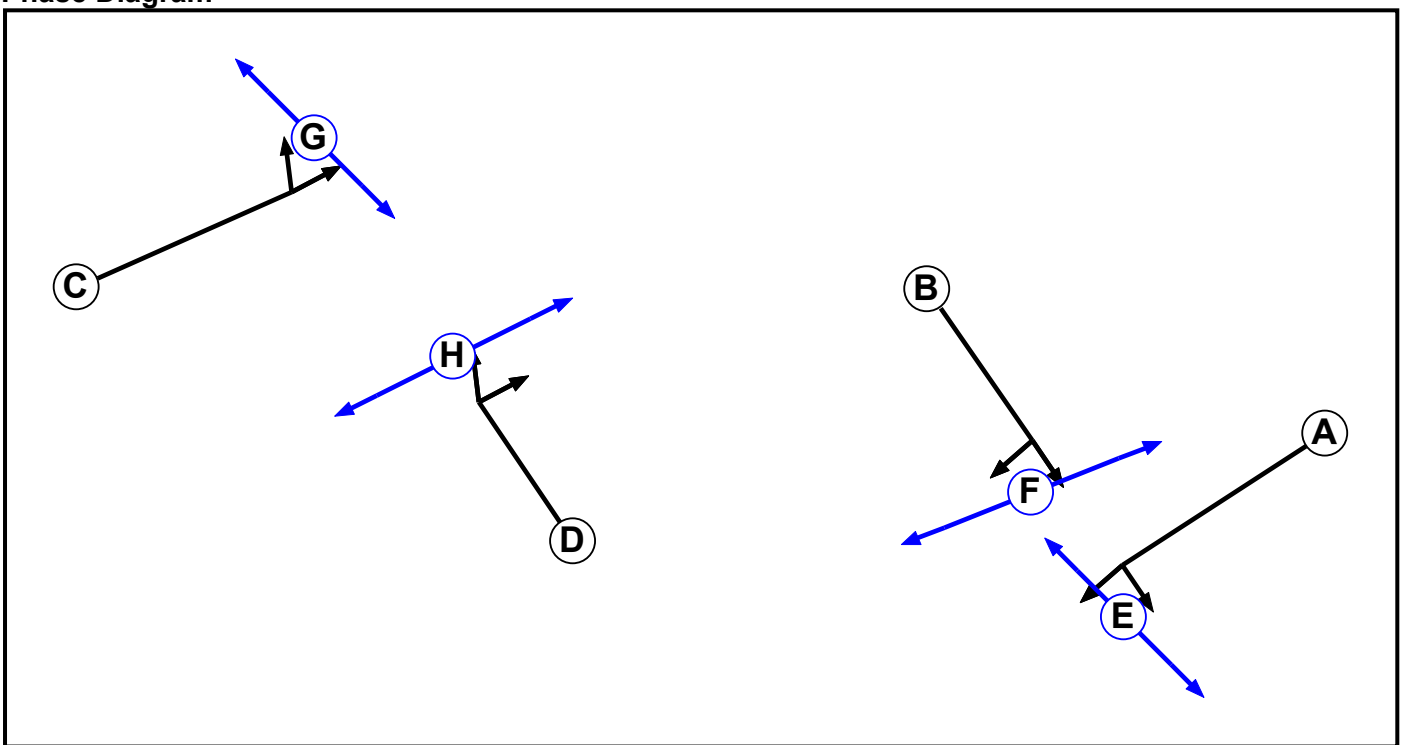
Scenario 6: 'SAt 2026 + devt' (FG6: '2026 Saturday with development', Plan 1: 'Network Control Plan 1')

Controller	Stream	PRC (%)	Total Delay for stream (pcuHr)
C1	1	19.84	10.39
C1	2	20.61	9.70
Total Network Delay: 26.63 pcuHr			
Worst PRC: 19.84 % (On Lane 10/2 in Stream 1)			

Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	2		7	7
B	Traffic	2		7	7
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Pedestrian	2		6	6
F	Pedestrian	2		6	6
G	Pedestrian	1		6	6
H	Pedestrian	1		6	6

Phase Diagram



Phase Intergreens Matrix

		Starting Phase							
		A	B	C	D	E	F	G	H
Terminating Phase	A		5	-	-	6	-	-	-
	B	5		-	-	-	5	-	-
	C	-	-		5	-	-	6	-
	D	-	-	5		-	-	-	5
	E	6	-	-	-		-	-	-
	F	-	6	-	-	-		-	-
	G	-	-	6	-	-	-		-
	H	-	-	-	6	-	-	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	C H
1	2	D G
2	1	B E
2	2	A F

Give-Way Lane Input Data

Junction: Unnamed Junction

Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (Hulbert Road (north))	12/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
1/2 (Hulbert Road (north))	7/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
1/3 (Hulbert Road (north))	7/3 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
	7/2 (Ahead)	1000	0	6/1	0.33	All					
				6/2	0.33	All					
3/1 (Hulbert Road (south))	9/1 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
	14/1 (Left)	839	0	8/1	0.33	All					
				8/2	0.33	All					
3/2 (Hulbert Road (south))	9/2 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
4/1 (Asda)	10/1 (Left)	880	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	15/1 (U-Turn)	880	0	9/1	0.33	All					
4/2 (Asda)	10/2 (Left)	1400	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	10/3 (Left)	880	0	9/1	0.33	All					
				9/2	0.33	All					

Lane Input Data

Junction: Unnamed Junction

Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Hulbert Road (north))	O		2	3	60.0	User	1900	-	-	-	-	-
1/2 (Hulbert Road (north))	O		2	3	3.0	User	1900	-	-	-	-	-
1/3 (Hulbert Road (north))	O		2	3	60.0	User	1900	-	-	-	-	-
2/1 (Purbrook Way (east))	U	A	2	3	60.0	User	1900	-	-	-	-	-
2/2 (Purbrook Way (east))	U	A	2	3	60.0	User	1900	-	-	-	-	-
3/1 (Hulbert Road (south))	O		2	3	60.0	User	1900	-	-	-	-	-
3/2 (Hulbert Road (south))	O		2	3	60.0	User	1900	-	-	-	-	-
4/1 (Asda)	O		2	3	60.0	User	1900	-	-	-	-	-
4/2 (Asda)	O		2	3	60.0	User	1900	-	-	-	-	-
5/1 (Purbrook Way (west))	U	C	2	3	3.0	User	1900	-	-	-	-	-
5/2 (Purbrook Way (west))	U	C	2	3	60.0	User	1900	-	-	-	-	-
5/3 (Purbrook Way (west))	U	C	2	3	60.0	User	1900	-	-	-	-	-
6/1 (CIRC at Hulbert Rd N)	U		2	3	60.0	User	1900	-	-	-	-	-
6/2 (CIRC at Hulbert Rd N)	U		2	3	60.0	User	1900	-	-	-	-	-
7/1 (CIRC at Purbrook Wy E)	U	B	2	3	60.0	User	1900	-	-	-	-	-
7/2 (CIRC at Purbrook Wy E)	U	B	2	3	60.0	User	1900	-	-	-	-	-

7/3 (CIRC at Purbrook Wy E)	U	B	2	3	60.0	User	1900	-	-	-	-	-
8/1 (CIRC at Hulbert Rd S)	U		2	3	60.0	User	1900	-	-	-	-	-
8/2 (CIRC at Hulbert Rd S)	U		2	3	60.0	User	1900	-	-	-	-	-
9/1 (CIRC at Asda)	U		2	3	60.0	User	1900	-	-	-	-	-
9/2 (CIRC at Asda)	U		2	3	60.0	User	1900	-	-	-	-	-
10/1 (CIRC at Purbrook Wy W)	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/2 (CIRC at Purbrook Wy W)	U	D	2	3	60.0	User	1900	-	-	-	-	-
10/3 (CIRC at Purbrook Wy W)	U	D	2	3	60.0	User	1900	-	-	-	-	-
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-
11/2	U		2	3	60.0	Inf	-	-	-	-	-	-
12/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/1	U		2	3	60.0	Inf	-	-	-	-	-	-
13/2	U		2	3	60.0	Inf	-	-	-	-	-	-
14/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/1	U		2	3	60.0	Inf	-	-	-	-	-	-
15/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: Unnamed Junction

Lane	Custom Occupancy per Flow Group (PCU)					
	2026 AM base	2026 AM with development	2026 PM base	2026 PM with development	2026 Saturday base	2026 Saturday with development
1/2 (Hulbert Road (north) Lane 2)	5.0	5.0	5.0	5.0	5.0	5.0
5/1 (Purbrook Way (west) Lane 1)	3.0	3.0	3.0	3.0	3.0	3.0

Give-Way Lane Input Data

Junction: Unnamed Junction											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/1 (Hulbert Road (north))	12/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
1/2 (Hulbert Road (north))	7/1 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
1/3 (Hulbert Road (north))	7/3 (Ahead)	1000	0	6/1	0.33	All	-	-	-	-	-
				6/2	0.33	All					
	7/2 (Ahead)	1000	0	6/1	0.33	All					
				6/2	0.33	All					
3/1 (Hulbert Road (south))	9/1 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
	14/1 (Left)	839	0	8/1	0.33	All					
				8/2	0.33	All					
3/2 (Hulbert Road (south))	9/2 (Ahead)	839	0	8/1	0.33	All	-	-	-	-	-
				8/2	0.33	All					
4/1 (Asda)	10/1 (Left)	880	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	15/1 (U-Turn)	880	0	9/1	0.33	All					
4/2 (Asda)	10/2 (Left)	1400	0	9/1	0.33	All	-	-	-	-	-
				9/2	0.33	All					
	10/3 (Left)	880	0	9/1	0.33	All					
				9/2	0.33	All					

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2026 AM base'	08:00	09:00	01:00	

Scenario 1: 'AM 2026 base' (FG1: '2026 AM base', Plan 1: 'Network Control Plan 1')

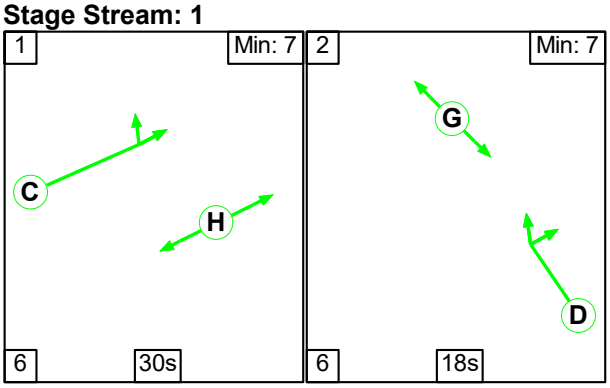
Traffic Flows, Desired

Desired Flow :

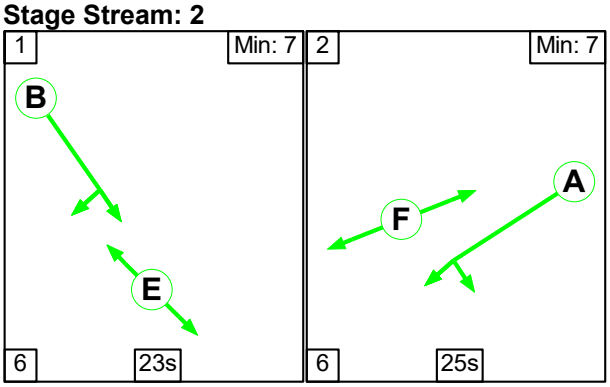
		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	393	347	110	191	1041
	B	347	0	22	111	580	1060
	C	172	29	0	77	262	540
	D	86	65	35	0	164	350
	E	135	572	175	186	0	1068
	Tot.	740	1059	579	484	1197	4059

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	30	18
Change Point	0	36

Stage Stream: 2

Stage	1	2
Duration	23	25
Change Point	15	44

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.3%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**71.3%**
1/1+1/2	Hulbert Road (north) Ahead Ahead2	O	N/A	-		-	-	-	717	1900:1900	1452	49.4%
1/3	Hulbert Road (north) Ahead	O	N/A	-		-	-	-	324	1900	672	48.2%
2/1	Purbrook Way (east) Ahead Left	U	2	A		1	25	-	530	1900	823	64.4%
2/2	Purbrook Way (east) Ahead	U	2	A		1	25	-	530	1900	823	64.4%
3/1	Hulbert Road (south) Ahead Left	O	N/A	-		-	-	-	270	1900	425	63.5%
3/2	Hulbert Road (south) Ahead	O	N/A	-		-	-	-	270	1900	425	63.5%
4/1	Asda Left U-Turn	O	N/A	-		-	-	-	175	1900	538	32.5%
4/2	Asda Left	O	N/A	-		-	-	-	175	1900	667	26.2%
5/2+5/1	Purbrook Way (west) Ahead Left	U	1	C		1	30	-	707	1900:1900	1014	69.7%
5/3	Purbrook Way (west) Ahead	U	1	C		1	30	-	361	1900	982	36.8%
6/1	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	666	1900	1900	35.1%
6/2	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	396	1900	1900	20.8%
7/1	CIRC at Purbrook Wy E Ahead	U	2	B		1	23	-	430	1900	760	56.6%
7/2	CIRC at Purbrook Wy E Right Ahead	U	2	B		1	23	-	519	1900	760	68.3%
7/3	CIRC at Purbrook Wy E Right	U	2	B		1	23	-	95	1900	760	12.5%
8/1	CIRC at Hulbert Rd S Right Ahead	U	N/A	-		-	-	-	900	1900	1900	47.4%

8/2	CIRC at Hulbert Rd S Right	U	N/A	-		-	-	-	625	1900	1900	32.9%
9/1	CIRC at Asda Left	U	N/A	-		-	-	-	686	1900	1900	36.1%
9/2	CIRC at Asda Ahead Left	U	N/A	-		-	-	-	895	1900	1900	47.1%
10/1	CIRC at Purbrook Wy W Ahead	U	1	D		1	18	-	270	1900	602	44.9%
10/2	CIRC at Purbrook Wy W Right Ahead	U	1	D		1	18	-	429	1900	602	71.3%
10/3	CIRC at Purbrook Wy W Right	U	1	D		1	18	-	35	1900	602	5.8%
11/1		U	N/A	-		-	-	-	405	Inf	Inf	0.0%
11/2		U	N/A	-		-	-	-	335	Inf	Inf	0.0%
12/1		U	N/A	-		-	-	-	1059	Inf	Inf	0.0%
13/1		U	N/A	-		-	-	-	452	Inf	Inf	0.0%
13/2		U	N/A	-		-	-	-	127	Inf	Inf	0.0%
14/1		U	N/A	-		-	-	-	484	Inf	Inf	0.0%
15/1		U	N/A	-		-	-	-	850	Inf	Inf	0.0%
15/2		U	N/A	-		-	-	-	347	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**2648**	**0**	**0**	**0.0**	**24.9**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**2648**	**0**	**0**	**0.0**	**24.9**	**-**	**-**	**-**	**-**
1/1+1/2	717	717	1434	0	0	-	0.6	3.2	1.8	0.5	2.3
1/3	324	324	324	0	0	-	0.6	6.7	1.8	0.5	2.3
2/1	530	530	-	-	-	-	2.9	19.5	6.9	0.9	7.8
2/2	530	530	-	-	-	-	2.9	19.5	6.9	0.9	7.8
3/1	270	270	270	0	0	-	1.1	14.8	2.0	0.9	2.9
3/2	270	270	270	0	0	-	1.1	14.8	2.0	0.9	2.9
4/1	175	175	175	0	0	-	0.3	6.9	0.8	0.2	1.1
4/2	175	175	175	0	0	-	0.3	5.6	0.8	0.2	1.0
5/2+5/1	707	707	-	-	-	-	3.2	16.2	7.9	1.1	9.1
5/3	361	361	-	-	-	-	1.2	11.6	3.5	0.3	3.8
6/1	666	666	-	-	-	-	0.3	1.5	0.0	0.3	0.3
6/2	396	396	-	-	-	-	0.1	1.2	0.0	0.1	0.1
7/1	430	430	-	-	-	-	2.1	17.5	4.9	0.6	5.5
7/2	519	519	-	-	-	-	2.5	17.6	6.6	1.1	7.7
7/3	95	95	-	-	-	-	0.4	13.9	0.9	0.1	0.9
8/1	900	900	-	-	-	-	0.4	1.8	0.0	0.4	0.4
8/2	625	625	-	-	-	-	0.2	1.4	0.0	0.2	0.2
9/1	686	686	-	-	-	-	0.3	1.5	0.0	0.3	0.3
9/2	895	895	-	-	-	-	0.5	1.9	7.0	0.4	7.5
10/1	270	270	-	-	-	-	1.0	13.6	3.3	0.4	3.7
10/2	429	429	-	-	-	-	2.7	22.6	5.8	1.2	7.1
10/3	35	35	-	-	-	-	0.2	17.2	0.3	0.0	0.4
11/1	405	405	-	-	-	-	0.0	0.0	0.0	0.0	0.0
11/2	335	335	-	-	-	-	0.0	0.0	0.0	0.0	0.0

12/1	1059	1059	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/1	452	452	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/2	127	127	-	-	-	-	0.0	0.0	0.0	0.0	0.0
14/1	484	484	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/1	850	850	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/2	347	347	-	-	-	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	26.2	Total Delay for Signalled Lanes (pcuHr):	8.22	Cycle Time (s):	60
C1	Stream: 2	PRC for Signalled Lanes (%):	31.8	Total Delay for Signalled Lanes (pcuHr):	10.73	Cycle Time (s):	60
		PRC Over All Lanes (%):	26.2	Total Delay Over All Lanes(pcuHr):	24.87		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
2: '2026 AM with development'	08:00	09:00	01:00	

Scenario 2: 'AM 2026 + devt' (FG2: '2026 AM with development', Plan 1: 'Network Control Plan 1')

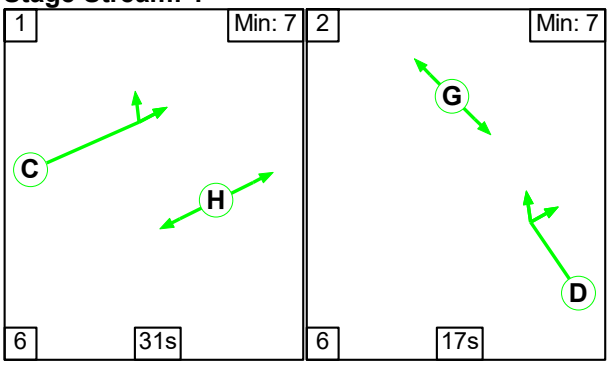
Traffic Flows, Desired

Desired Flow :

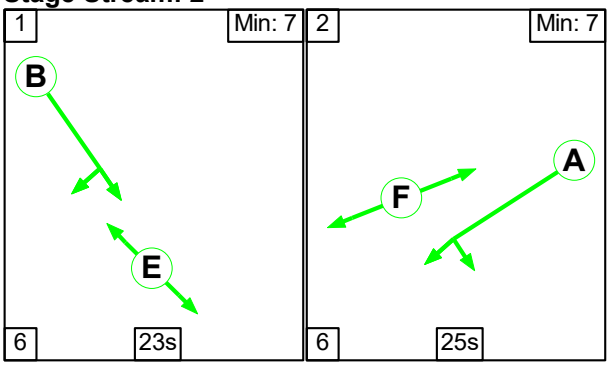
		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	393	347	110	201	1051
	B	347	0	22	107	599	1075
	C	172	29	0	74	268	543
	D	86	62	32	0	158	338
	E	157	605	180	179	0	1121
	Tot.	762	1089	581	470	1226	4128

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	31	17
Change Point	0	37

Purbrook Way gyratory

Stage Stream: 2

Stage	1	2
Duration	23	25
Change Point	17	46

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.7%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.7%**
1/1+1/2	Hulbert Road (north) Ahead Ahead2	O	N/A	-		-	-	-	722	1900:1900	1433	50.4%
1/3	Hulbert Road (north) Ahead	O	N/A	-		-	-	-	329	1900	663	49.6%
2/1	Purbrook Way (east) Ahead Left	U	2	A		1	25	-	537	1900	823	65.2%
2/2	Purbrook Way (east) Ahead	U	2	A		1	25	-	538	1900	823	65.3%
3/1	Hulbert Road (south) Ahead Left	O	N/A	-		-	-	-	271	1900	419	64.6%
3/2	Hulbert Road (south) Ahead	O	N/A	-		-	-	-	272	1900	419	64.9%
4/1	Asda Left U-Turn	O	N/A	-		-	-	-	169	1900	525	32.2%
4/2	Asda Left	O	N/A	-		-	-	-	169	1900	658	25.7%
5/2+5/1	Purbrook Way (west) Ahead Left	U	1	C		1	31	-	762	1900:1900	1050	72.6%
5/3	Purbrook Way (west) Ahead	U	1	C		1	31	-	359	1900	1013	35.4%
6/1	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	696	1900	1900	36.6%
6/2	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	391	1900	1900	20.6%
7/1	CIRC at Purbrook Wy E Ahead	U	2	B		1	23	-	435	1900	760	57.2%
7/2	CIRC at Purbrook Wy E Right Ahead	U	2	B		1	23	-	513	1900	760	67.5%
7/3	CIRC at Purbrook Wy E Right	U	2	B		1	23	-	101	1900	760	13.3%
8/1	CIRC at Hulbert Rd S Right Ahead	U	N/A	-		-	-	-	904	1900	1900	47.6%

8/2	CIRC at Hulbert Rd S Right	U	N/A	-		-	-	-	639	1900	1900	33.6%
9/1	CIRC at Asda Left	U	N/A	-		-	-	-	705	1900	1900	37.1%
9/2	CIRC at Asda Ahead Left	U	N/A	-		-	-	-	911	1900	1900	47.9%
10/1	CIRC at Purbrook Wy W Ahead	U	1	D		1	17	-	270	1900	570	47.4%
10/2	CIRC at Purbrook Wy W Right Ahead	U	1	D		1	17	-	426	1900	570	74.7%
10/3	CIRC at Purbrook Wy W Right	U	1	D		1	17	-	32	1900	570	5.6%
11/1		U	N/A	-		-	-	-	427	Inf	Inf	0.0%
11/2		U	N/A	-		-	-	-	335	Inf	Inf	0.0%
12/1		U	N/A	-		-	-	-	1089	Inf	Inf	0.0%
13/1		U	N/A	-		-	-	-	457	Inf	Inf	0.0%
13/2		U	N/A	-		-	-	-	124	Inf	Inf	0.0%
14/1		U	N/A	-		-	-	-	470	Inf	Inf	0.0%
15/1		U	N/A	-		-	-	-	863	Inf	Inf	0.0%
15/2		U	N/A	-		-	-	-	363	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**2654**	**0**	**0**	**0.0**	**26.0**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**2654**	**0**	**0**	**0.0**	**26.0**	**-**	**-**	**-**	**-**	
1/1+1/2	722	722	1444	0	0	-	0.7	3.2	1.9	0.5	2.4	
1/3	329	329	329	0	0	-	0.6	6.9	1.9	0.5	2.4	
2/1	537	537	-	-	-	-	2.9	19.7	7.0	0.9	7.9	
2/2	538	538	-	-	-	-	2.9	19.7	7.0	0.9	8.0	
3/1	271	271	271	0	0	-	1.2	15.6	2.0	0.9	2.9	
3/2	272	272	272	0	0	-	1.2	15.7	2.0	0.9	3.0	
4/1	169	169	169	0	0	-	0.3	7.1	0.8	0.2	1.1	
4/2	169	169	169	0	0	-	0.3	5.7	0.8	0.2	1.0	
5/2+5/1	762	762	-	-	-	-	3.4	16.2	8.5	1.3	9.8	
5/3	359	359	-	-	-	-	1.1	10.8	3.4	0.3	3.7	
6/1	696	696	-	-	-	-	0.3	1.5	0.0	0.3	0.3	
6/2	391	391	-	-	-	-	0.1	1.2	0.0	0.1	0.1	
7/1	435	435	-	-	-	-	2.1	17.6	5.0	0.7	5.7	
7/2	513	513	-	-	-	-	2.5	17.7	6.6	1.0	7.6	
7/3	101	101	-	-	-	-	0.4	13.8	0.9	0.1	0.9	
8/1	904	904	-	-	-	-	0.5	1.8	0.0	0.5	0.5	
8/2	639	639	-	-	-	-	0.3	1.4	0.0	0.3	0.3	
9/1	705	705	-	-	-	-	0.3	1.5	0.0	0.3	0.3	
9/2	911	911	-	-	-	-	0.5	1.9	7.0	0.5	7.5	
10/1	270	270	-	-	-	-	1.2	15.7	3.3	0.4	3.7	
10/2	426	426	-	-	-	-	3.1	26.0	5.5	1.4	6.9	
10/3	32	32	-	-	-	-	0.2	18.2	0.3	0.0	0.4	
11/1	427	427	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
11/2	335	335	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

12/1	1089	1089	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/1	457	457	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/2	124	124	-	-	-	-	0.0	0.0	0.0	0.0	0.0
14/1	470	470	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/1	863	863	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/2	363	363	-	-	-	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	20.4	Total Delay for Signalled Lanes (pcuHr):	8.93	Cycle Time (s):	60
C1	Stream: 2	PRC for Signalled Lanes (%):	33.3	Total Delay for Signalled Lanes (pcuHr):	10.91	Cycle Time (s):	60
		PRC Over All Lanes (%):	20.4	Total Delay Over All Lanes(pcuHr):	26.00		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
3: '2026 PM base'	16:30	17:30	01:00	

Scenario 3: 'PM 2026 base' (FG3: '2026 PM base', Plan 1: 'Network Control Plan 1')

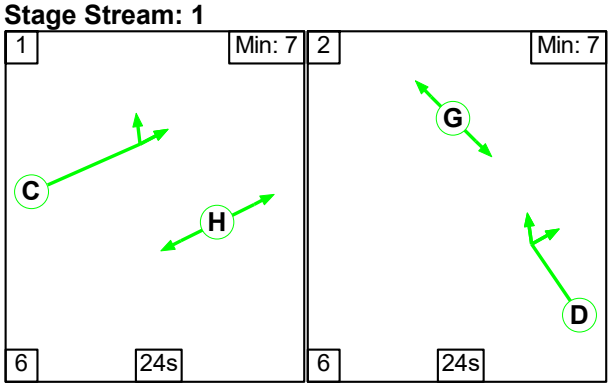
Traffic Flows, Desired

Desired Flow :

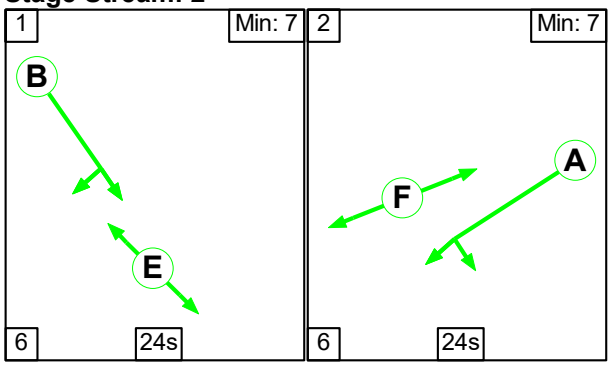
		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	444	174	167	135	920
	B	406	0	31	170	476	1083
	C	199	34	0	125	130	488
	D	176	234	82	0	299	791
	E	103	590	139	302	0	1134
	Tot.	884	1302	426	764	1040	4416

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	24	24
Change Point	0	30

Purbrook Way gyratory

Stage Stream: 2

Stage	1	2
Duration	24	24
Change Point	9	39

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.2%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**85.2%**
1/1+1/2	Hulbert Road (north) Ahead Ahead2	O	N/A	-		-	-	-	618	1900:1900	997	62.0%
1/3	Hulbert Road (north) Ahead	O	N/A	-		-	-	-	302	1900	577	52.3%
2/1	Purbrook Way (east) Ahead Left	U	2	A		1	24	-	541	1900	792	68.3%
2/2	Purbrook Way (east) Ahead	U	2	A		1	24	-	542	1900	792	68.5%
3/1	Hulbert Road (south) Ahead Left	O	N/A	-		-	-	-	244	1900	387	63.0%
3/2	Hulbert Road (south) Ahead	O	N/A	-		-	-	-	244	1900	387	63.0%
4/1	Asda Left U-Turn	O	N/A	-		-	-	-	396	1900	542	73.0%
4/2	Asda Left	O	N/A	-		-	-	-	395	1900	720	54.9%
5/2+5/1	Purbrook Way (west) Ahead Left	U	1	C		1	24	-	693	1900:1900	813	85.2%
5/3	Purbrook Way (west) Ahead	U	1	C		1	24	-	441	1900	792	55.7%
6/1	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	858	1900	1900	45.2%
6/2	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	523	1900	1900	27.5%
7/1	CIRC at Purbrook Wy E Ahead	U	2	B		1	24	-	285	1900	792	36.0%
7/2	CIRC at Purbrook Wy E Right Ahead	U	2	B		1	24	-	647	1900	792	81.7%
7/3	CIRC at Purbrook Wy E Right	U	2	B		1	24	-	67	1900	792	8.5%
8/1	CIRC at Hulbert Rd S Right Ahead	U	N/A	-		-	-	-	1047	1900	1900	55.1%

8/2	CIRC at Hulbert Rd S Right	U	N/A	-		-	-	-	609	1900	1900	32.1%
9/1	CIRC at Asda Left	U	N/A	-		-	-	-	527	1900	1900	27.7%
9/2	CIRC at Asda Ahead Left	U	N/A	-		-	-	-	853	1900	1900	44.9%
10/1	CIRC at Purbrook Wy W Ahead	U	1	D		1	24	-	399	1900	792	50.4%
10/2	CIRC at Purbrook Wy W Right Ahead	U	1	D		1	24	-	650	1900	792	82.1%
10/3	CIRC at Purbrook Wy W Right	U	1	D		1	24	-	82	1900	792	10.4%
11/1		U	N/A	-		-	-	-	502	Inf	Inf	0.0%
11/2		U	N/A	-		-	-	-	382	Inf	Inf	0.0%
12/1		U	N/A	-		-	-	-	1302	Inf	Inf	0.0%
13/1		U	N/A	-		-	-	-	316	Inf	Inf	0.0%
13/2		U	N/A	-		-	-	-	110	Inf	Inf	0.0%
14/1		U	N/A	-		-	-	-	764	Inf	Inf	0.0%
15/1		U	N/A	-		-	-	-	826	Inf	Inf	0.0%
15/2		U	N/A	-		-	-	-	214	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**2817**	**0**	**0**	**0.0**	**34.5**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**2817**	**0**	**0**	**0.0**	**34.5**	**-**	**-**	**-**	**-**
1/1+1/2	618	618	1236	0	0	-	0.9	5.4	2.0	0.8	2.8
1/3	302	302	302	0	0	-	0.8	9.7	2.2	0.5	2.7
2/1	541	541	-	-	-	-	3.2	21.4	7.2	1.1	8.3
2/2	542	542	-	-	-	-	3.2	21.4	7.2	1.1	8.3
3/1	244	244	244	0	0	-	1.1	15.7	1.8	0.8	2.6
3/2	244	244	244	0	0	-	1.1	15.7	1.8	0.8	2.6
4/1	396	396	396	0	0	-	1.8	16.7	4.2	1.3	5.5
4/2	395	395	395	0	0	-	1.0	9.1	3.1	0.6	3.7
5/2+5/1	693	693	-	-	-	-	5.7	29.7	9.9	2.8	12.6
5/3	441	441	-	-	-	-	2.3	18.4	5.5	0.6	6.1
6/1	858	858	-	-	-	-	0.4	1.7	0.0	0.4	0.4
6/2	523	523	-	-	-	-	0.2	1.3	0.0	0.2	0.2
7/1	285	285	-	-	-	-	1.1	14.1	2.9	0.3	3.2
7/2	647	647	-	-	-	-	4.0	22.3	9.2	2.2	11.4
7/3	67	67	-	-	-	-	0.3	16.9	0.8	0.0	0.8
8/1	1047	1047	-	-	-	-	0.6	2.1	0.0	0.6	0.6
8/2	609	609	-	-	-	-	0.2	1.4	0.0	0.2	0.2
9/1	527	527	-	-	-	-	0.2	1.3	0.0	0.2	0.2
9/2	853	853	-	-	-	-	0.4	1.9	7.5	0.4	7.9
10/1	399	399	-	-	-	-	1.4	12.7	4.6	0.5	5.1
10/2	650	650	-	-	-	-	4.2	23.0	8.5	2.2	10.7
10/3	82	82	-	-	-	-	0.3	13.2	0.7	0.1	0.8
11/1	502	502	-	-	-	-	0.0	0.0	0.0	0.0	0.0
11/2	382	382	-	-	-	-	0.0	0.0	0.0	0.0	0.0

12/1	1302	1302	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/1	316	316	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/2	110	110	-	-	-	-	0.0	0.0	0.0	0.0	0.0
14/1	764	764	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/1	826	826	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/2	214	214	-	-	-	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	5.6	Total Delay for Signalled Lanes (pcuHr):	13.85	Cycle Time (s):	60
C1	Stream: 2	PRC for Signalled Lanes (%):	10.1	Total Delay for Signalled Lanes (pcuHr):	11.88	Cycle Time (s):	60
		PRC Over All Lanes (%):	5.6	Total Delay Over All Lanes(pcuHr):	34.52		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
5: '2026 Saturday base'	11:45	12:45	01:00	

Scenario 5: 'SAT 2026 base' (FG5: '2026 Saturday base', Plan 1: 'Network Control Plan 1')

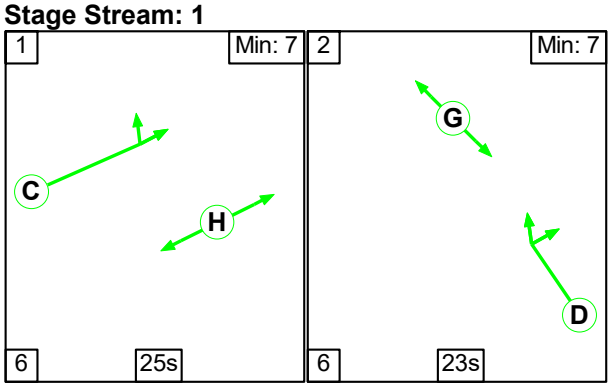
Traffic Flows, Desired

Desired Flow :

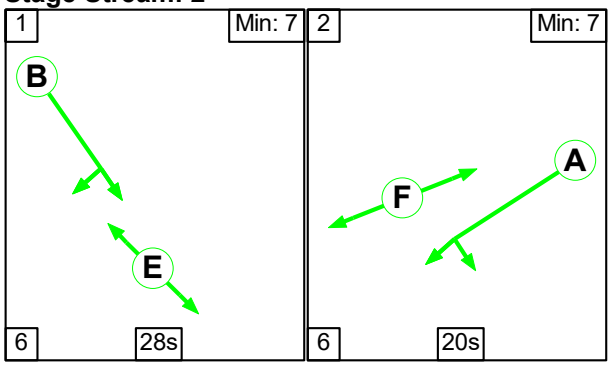
		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	287	87	154	114	642
	B	253	1	29	242	429	954
	C	105	35	0	149	109	398
	D	154	291	104	0	351	900
	E	119	514	78	356	0	1067
	Tot.	631	1128	298	901	1003	3961

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	25	23
Change Point	0	31

Purbrook Way gyratory

Stage Stream: 2

Stage	1	2
Duration	28	20
Change Point	3	37

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.0%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**74.0%**
1/1+1/2	Hulbert Road (north) Ahead Ahead2	O	N/A	-		-	-	-	374	1900:1900	941	39.7%
1/3	Hulbert Road (north) Ahead	O	N/A	-		-	-	-	268	1900	579	46.3%
2/1	Purbrook Way (east) Ahead Left	U	2	A		1	20	-	477	1900	665	71.7%
2/2	Purbrook Way (east) Ahead	U	2	A		1	20	-	477	1900	665	71.7%
3/1	Hulbert Road (south) Ahead Left	O	N/A	-		-	-	-	199	1900	416	47.9%
3/2	Hulbert Road (south) Ahead	O	N/A	-		-	-	-	199	1900	416	47.9%
4/1	Asda Left U-Turn	O	N/A	-		-	-	-	450	1900	612	73.5%
4/2	Asda Left	O	N/A	-		-	-	-	450	1900	803	56.0%
5/2+5/1	Purbrook Way (west) Ahead Left	U	1	C		1	25	-	633	1900:1900	855	74.0%
5/3	Purbrook Way (west) Ahead	U	1	C		1	25	-	434	1900	823	52.7%
6/1	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	841	1900	1900	44.3%
6/2	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	538	1900	1900	28.3%
7/1	CIRC at Purbrook Wy E Ahead	U	2	B		1	28	-	178	1900	918	19.4%
7/2	CIRC at Purbrook Wy E Right Ahead	U	2	B		1	28	-	658	1900	918	71.7%
7/3	CIRC at Purbrook Wy E Right	U	2	B		1	28	-	57	1900	918	6.2%
8/1	CIRC at Hulbert Rd S Right Ahead	U	N/A	-		-	-	-	1015	1900	1900	53.4%

8/2	CIRC at Hulbert Rd S Right	U	N/A	-		-	-	-	534	1900	1900	28.1%
9/1	CIRC at Asda Left	U	N/A	-		-	-	-	313	1900	1900	16.5%
9/2	CIRC at Asda Ahead Left	U	N/A	-		-	-	-	733	1900	1900	38.6%
10/1	CIRC at Purbrook Wy W Ahead	U	1	D		1	23	-	277	1900	760	36.4%
10/2	CIRC at Purbrook Wy W Right Ahead	U	1	D		1	23	-	562	1900	760	73.9%
10/3	CIRC at Purbrook Wy W Right	U	1	D		1	23	-	104	1900	760	13.7%
11/1		U	N/A	-		-	-	-	396	Inf	Inf	0.0%
11/2		U	N/A	-		-	-	-	235	Inf	Inf	0.0%
12/1		U	N/A	-		-	-	-	1128	Inf	Inf	0.0%
13/1		U	N/A	-		-	-	-	207	Inf	Inf	0.0%
13/2		U	N/A	-		-	-	-	91	Inf	Inf	0.0%
14/1		U	N/A	-		-	-	-	901	Inf	Inf	0.0%
15/1		U	N/A	-		-	-	-	664	Inf	Inf	0.0%
15/2		U	N/A	-		-	-	-	339	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**2314**	**0**	**0**	**0.0**	**27.4**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**2314**	**0**	**0**	**0.0**	**27.4**	**-**	**-**	**-**	**-**	
1/1+1/2	374	374	748	0	0	-	0.4	3.4	0.3	0.3	0.6	
1/3	268	268	268	0	0	-	0.6	7.9	1.5	0.4	1.9	
2/1	477	477	-	-	-	-	3.5	26.4	6.9	1.3	8.1	
2/2	477	477	-	-	-	-	3.5	26.4	6.9	1.3	8.1	
3/1	199	199	199	0	0	-	0.6	10.6	1.1	0.5	1.6	
3/2	199	199	199	0	0	-	0.6	10.6	1.1	0.5	1.6	
4/1	450	450	450	0	0	-	1.8	14.7	4.2	1.4	5.6	
4/2	450	450	450	0	0	-	1.0	8.1	3.1	0.6	3.8	
5/2+5/1	633	633	-	-	-	-	3.8	21.6	7.9	1.4	9.3	
5/3	434	434	-	-	-	-	2.1	17.1	5.3	0.6	5.9	
6/1	841	841	-	-	-	-	0.4	1.7	0.0	0.4	0.4	
6/2	538	538	-	-	-	-	0.2	1.3	0.0	0.2	0.2	
7/1	178	178	-	-	-	-	0.6	11.8	1.7	0.1	1.9	
7/2	658	658	-	-	-	-	2.4	12.9	3.6	1.3	4.8	
7/3	57	57	-	-	-	-	0.2	11.0	0.5	0.0	0.6	
8/1	1015	1015	-	-	-	-	0.6	2.0	0.0	0.6	0.6	
8/2	534	534	-	-	-	-	0.2	1.3	0.0	0.2	0.2	
9/1	313	313	-	-	-	-	0.1	1.1	0.0	0.1	0.1	
9/2	733	733	-	-	-	-	0.3	1.7	7.0	0.3	7.3	
10/1	277	277	-	-	-	-	1.0	12.7	3.2	0.3	3.5	
10/2	562	562	-	-	-	-	3.3	20.9	7.5	1.4	8.9	
10/3	104	104	-	-	-	-	0.4	13.6	0.8	0.1	0.9	
11/1	396	396	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
11/2	235	235	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

12/1	1128	1128	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/1	207	207	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/2	91	91	-	-	-	-	0.0	0.0	0.0	0.0	0.0
14/1	901	901	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/1	664	664	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/2	339	339	-	-	-	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	21.6	Total Delay for Signalled Lanes (pcuHr):	10.50	Cycle Time (s):	60
C1	Stream: 2	PRC for Signalled Lanes (%):	25.5	Total Delay for Signalled Lanes (pcuHr):	10.10	Cycle Time (s):	60
		PRC Over All Lanes (%):	21.6	Total Delay Over All Lanes(pcuHr):	27.37		

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
6: '2026 Saturday with development'	11:45	12:45	01:00	

Scenario 6: 'SAt 2026 + devt' (FG6: '2026 Saturday with development', Plan 1: 'Network Control Plan 1')

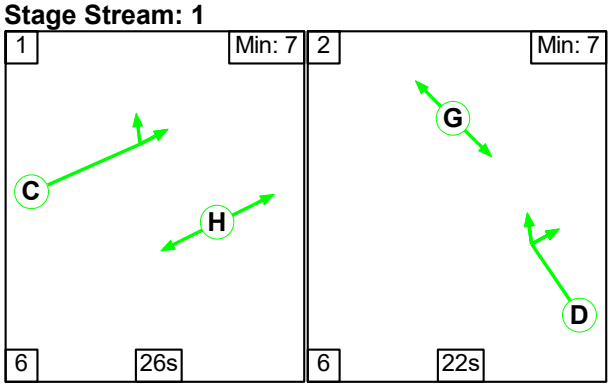
Traffic Flows, Desired

Desired Flow :

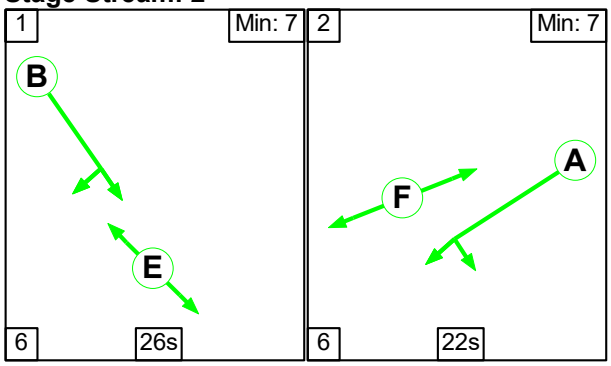
		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	287	87	150	114	638
	B	253	1	29	232	453	968
	C	105	35	0	143	126	409
	D	150	281	98	0	330	859
	E	119	538	95	335	0	1087
	Tot.	627	1142	309	860	1023	3961

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2
Duration	26	22
Change Point	0	32

Purbrook Way gyratory

Stage Stream: 2

Stage	1	2
Duration	26	22
Change Point	10	42

Item	Lane Description	Lane Type	Controller Stream	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**
Unnamed Junction	**-**	**-**	**N/A**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**75.1%**
1/1+1/2	Hulbert Road (north) Ahead Ahead2	O	N/A	-		-	-	-	374	1900:1900	935	40.0%
1/3	Hulbert Road (north) Ahead	O	N/A	-		-	-	-	264	1900	576	45.8%
2/1	Purbrook Way (east) Ahead Left	U	2	A		1	22	-	484	1900	728	66.5%
2/2	Purbrook Way (east) Ahead	U	2	A		1	22	-	484	1900	728	66.5%
3/1	Hulbert Road (south) Ahead Left	O	N/A	-		-	-	-	205	1900	411	49.9%
3/2	Hulbert Road (south) Ahead	O	N/A	-		-	-	-	204	1900	411	49.7%
4/1	Asda Left U-Turn	O	N/A	-		-	-	-	430	1900	605	71.0%
4/2	Asda Left	O	N/A	-		-	-	-	429	1900	795	53.9%
5/2+5/1	Purbrook Way (west) Ahead Left	U	1	C		1	26	-	657	1900:1900	885	74.3%
5/3	Purbrook Way (west) Ahead	U	1	C		1	26	-	430	1900	855	50.3%
6/1	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	855	1900	1900	45.0%
6/2	CIRC at Hulbert Rd N Right	U	N/A	-		-	-	-	528	1900	1900	27.8%
7/1	CIRC at Purbrook Wy E Ahead	U	2	B		1	26	-	184	1900	855	21.5%
7/2	CIRC at Purbrook Wy E Right Ahead	U	2	B		1	26	-	638	1900	855	74.6%
7/3	CIRC at Purbrook Wy E Right	U	2	B		1	26	-	57	1900	855	6.7%
8/1	CIRC at Hulbert Rd S Right Ahead	U	N/A	-		-	-	-	997	1900	1900	52.5%

8/2	CIRC at Hulbert Rd S Right	U	N/A	-		-	-	-	541	1900	1900	28.5%
9/1	CIRC at Asda Left	U	N/A	-		-	-	-	342	1900	1900	18.0%
9/2	CIRC at Asda Ahead Left	U	N/A	-		-	-	-	745	1900	1900	39.2%
10/1	CIRC at Purbrook Wy W Ahead	U	1	D		1	22	-	278	1900	728	38.2%
10/2	CIRC at Purbrook Wy W Right Ahead	U	1	D		1	22	-	547	1900	728	75.1%
10/3	CIRC at Purbrook Wy W Right	U	1	D		1	22	-	98	1900	728	13.5%
11/1		U	N/A	-		-	-	-	397	Inf	Inf	0.0%
11/2		U	N/A	-		-	-	-	230	Inf	Inf	0.0%
12/1		U	N/A	-		-	-	-	1142	Inf	Inf	0.0%
13/1		U	N/A	-		-	-	-	213	Inf	Inf	0.0%
13/2		U	N/A	-		-	-	-	96	Inf	Inf	0.0%
14/1		U	N/A	-		-	-	-	860	Inf	Inf	0.0%
15/1		U	N/A	-		-	-	-	672	Inf	Inf	0.0%
15/2		U	N/A	-		-	-	-	351	Inf	Inf	0.0%

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)	
Network	**-**	**-**	**2280**	**0**	**0**	**0.0**	**26.6**	**-**	**-**	**-**	**-**	
Unnamed Junction	**-**	**-**	**2280**	**0**	**0**	**0.0**	**26.6**	**-**	**-**	**-**	**-**	
1/1+1/2	374	374	748	0	0	-	0.4	3.5	0.3	0.3	0.6	
1/3	264	264	264	0	0	-	0.6	7.9	1.5	0.4	2.0	
2/1	484	484	-	-	-	-	3.0	22.6	6.6	1.0	7.6	
2/2	484	484	-	-	-	-	3.0	22.6	6.6	1.0	7.6	
3/1	205	205	205	0	0	-	0.6	11.0	1.2	0.5	1.7	
3/2	204	204	204	0	0	-	0.6	11.0	1.2	0.5	1.7	
4/1	430	430	430	0	0	-	1.6	13.6	3.8	1.2	5.0	
4/2	429	429	429	0	0	-	0.9	7.7	3.0	0.6	3.6	
5/2+5/1	657	657	-	-	-	-	3.8	20.9	8.3	1.4	9.7	
5/3	430	430	-	-	-	-	1.9	16.0	5.0	0.5	5.5	
6/1	855	855	-	-	-	-	0.4	1.7	0.0	0.4	0.4	
6/2	528	528	-	-	-	-	0.2	1.3	0.0	0.2	0.2	
7/1	184	184	-	-	-	-	0.7	13.3	1.8	0.1	2.0	
7/2	638	638	-	-	-	-	2.8	15.6	8.2	1.5	9.6	
7/3	57	57	-	-	-	-	0.2	11.5	0.5	0.0	0.6	
8/1	997	997	-	-	-	-	0.6	2.0	0.0	0.6	0.6	
8/2	541	541	-	-	-	-	0.2	1.3	0.0	0.2	0.2	
9/1	342	342	-	-	-	-	0.1	1.2	0.0	0.1	0.1	
9/2	745	745	-	-	-	-	0.3	1.7	6.4	0.3	6.8	
10/1	278	278	-	-	-	-	1.0	12.8	2.9	0.3	3.2	
10/2	547	547	-	-	-	-	3.3	21.6	6.5	1.5	8.0	
10/3	98	98	-	-	-	-	0.4	14.7	0.9	0.1	1.0	
11/1	397	397	-	-	-	-	0.0	0.0	0.0	0.0	0.0	
11/2	230	230	-	-	-	-	0.0	0.0	0.0	0.0	0.0	

12/1	1142	1142	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/1	213	213	-	-	-	-	0.0	0.0	0.0	0.0	0.0
13/2	96	96	-	-	-	-	0.0	0.0	0.0	0.0	0.0
14/1	860	860	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/1	672	672	-	-	-	-	0.0	0.0	0.0	0.0	0.0
15/2	351	351	-	-	-	-	0.0	0.0	0.0	0.0	0.0

C1	Stream: 1	PRC for Signalled Lanes (%):	19.8	Total Delay for Signalled Lanes (pcuHr):	10.39	Cycle Time (s):	60
C1	Stream: 2	PRC for Signalled Lanes (%):	20.6	Total Delay for Signalled Lanes (pcuHr):	9.70	Cycle Time (s):	60
		PRC Over All Lanes (%):	19.8	Total Delay Over All Lanes(pcuHr):	26.63		