ODYSSEY

CELEBRATING 15 YEARS

LAND EAST OF KEYMER ROAD AND SOUTH OF FOLDERS LANE, BURGESS HILL

HIGHWAYS APPRAISAL ASSESSMENT

LAND EAST OF KEYMER ROAD AND SOUTH OF FOLDERS LANE, BURGESS HILL

HIGHWAYS APPRAISAL ASSESSMENT

ON BEHALF OF THAKEHAM HOMES AND PERSIMMON HOMES

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1.0 INTRODUCTION

1.1 Preamble

1.1.1 Odyssey has been instructed by Thakeham Homes and Persimmon Homes to prepare this Highways Appraisal Assessment relating to the proposed residential development at Land East of Keymer Road and South of Folders Lane, Burgess Hill; refer to **Figure 1** for the site location.

1.1.2 The site has a total draft allocation for 300 dwellings in the Mid-Sussex District Council (MSDC) Site Allocations Development Plan Document (DPD) – Regulation 18, Consultation Report.

1.1.3 The Regulation 18 consultation was carried out between 9th October 2019 and 20th November 2019. Subsequent to this consultation, the Site Allocations DPD Draft Submission (Regulation 19) has been published in which this land parcel has been included as Policy Reference SA13 for 300 dwellings.

1.1.4 Odyssey produced a Highways Appraisal (Ref. 14-205-12B) which formed part of the evidence base for the Regulation 19 consultation stage. The Highways Appraisal provided information pertaining to the suitability of the site for residential development in terms access arrangements.

1.1.5 This Highways Appraisal Assessment has been prepared as supplementary evidence to the Highways Appraisal, providing further information regarding the development proposals, sustainable transport and off-site traffic impact.

1.1.6 Pre-application scoping has been undertaken with West Sussex County Council (WSCC) to determine the analysis required for this Local Plan evidence base document. The pre-application scoping correspondence is presented in **Appendix A** and has been used to inform the structure of this report.

1.1.7 On this basis this report is structured as follows:

- **Section 2.0** discusses the existing conditions in the vicinity of the site.
- **Section 3.0** sets out the proposed development site accesses onto Keymer Road, Broadlands and Folders Lane.
- **Section 4.0** discusses the sustainable transport proposals and improvements that would be realised alongside the development.
- **Section 5.0** sets out the base and committed development traffic flows, and the development's vehicular trip generation, distribution and assignment.

- **Section 6.0** discusses the site access and off-site junction capacity analysis.
- **Section 7.0** contains the summary and conclusions.

2.0 EXISTING CONDITIONS

2.1 Public Transport Accessibility

2.1.1 The site benefits from existing bus services that operate in close proximity, including Routes 35C and 33, which can be accessed from bus stops on Folders Lane and Keymer Road respectively. Both of these routes, pre-Covid-19, provided an hourly service into the centre of Burgess Hill Monday to Saturday; refer to **Appendix B** for the bus timetables and map. These routes still service the centre of Burgess Hill, whilst Route 33 also provides onward journeys to Hurstpierpoint and Haywards Heath; refer to **Figure 2** which presents the location of the exiting bus stops.

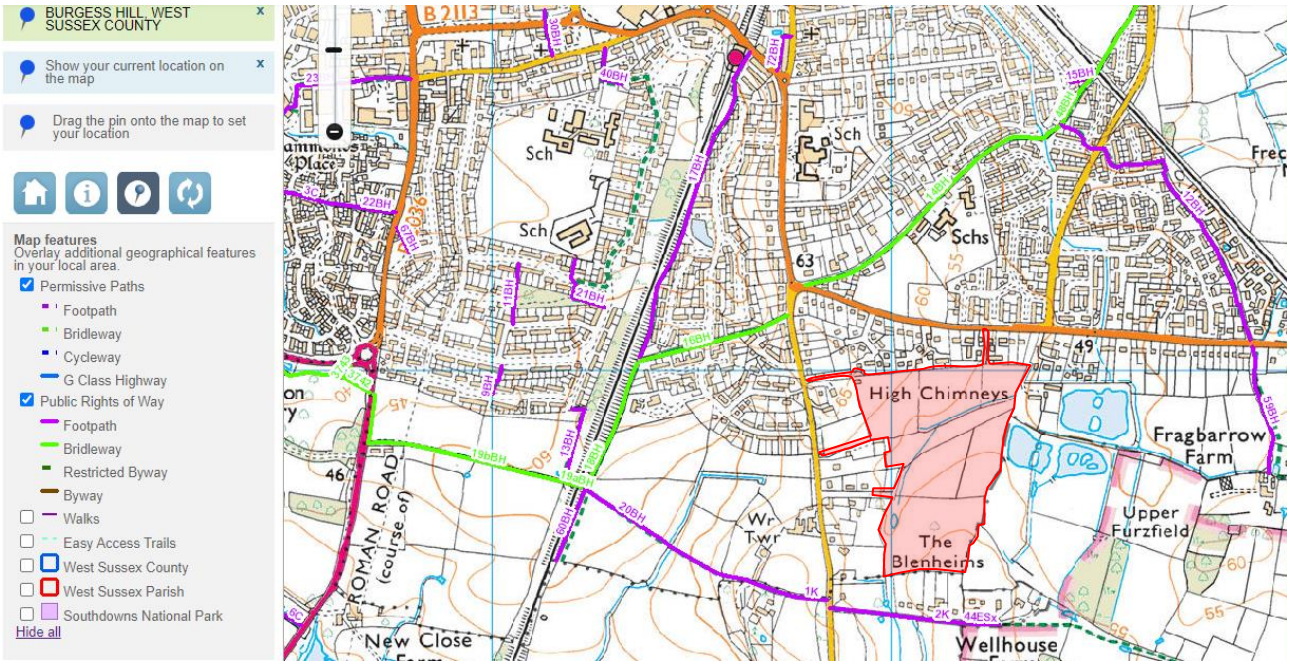
2.1.2 In addition to the aforementioned bus services, the No. 167 and No. 168 'village rider' bus services, which can be accessed from bus stops on Keymer Road and Folders Lane respectively, both provide limited (c. three times a day from Monday to Thursday) service frequencies. These bus services do, however, provide access to Lewes to the south of Burgess Hill. The No. 523 Burgess Hill to Warden Park school bus can also be accessed from the Folders Lane bus stops on schooldays. The (pre-Covid-19) bus timetables and a map can be found in **Appendix B**.

2.1.3 The Draft Site Allocations DPD (September 2019) Policy SA13, Highways and Access states *'A Sustainable transport strategy will be required identifying how the development will integrate with the existing network, providing safe and convenient routes for walking, cycling and public transport through the development and linking with existing networks'*. The sustainable transport strategy is set out in **Section 4.0**.

2.2 Pedestrian Right of Way

2.2.1 Within a short travel of the site there are numerous footpaths and bridleways which future residents could make use of. **Extract 2.1** presents an extract from the WSCC interactive Public Rights of Way (PRoW) map.

Extract 2.1: West Sussex County Council Public Right of Way Map



2.2.2 The closest PRoW in the vicinity of the site are Bridleways '16BH' and '14BH' which provide off-road pedestrian and cycle routes to Batchelors Farm Nature Reserve and Birchwood Grove County Primary School respectively. The ability to connect to the local pedestrian and cycle infrastructure, including PRoW, is set out in **Section 4.0**, and further detail would be assessed as part of any future planning application(s).

2.3 Local Footway Infrastructure

2.3.1 A review of the local pedestrian and cycle infrastructure has been undertaken for the key routes to and from the site. This predominantly comprises of the route to and from Burgess Hill train station and town centre. This has been reviewed alongside potential improvements to these routes, as set out in **Section 4.0**.

2.4 Personal Injury Accident Data

2.4.1 As part of the future planning application(s) for the site up-to-date personal injury accident (PIA) data would be obtained and analysed for the highway network in the vicinity of the site.

2.4.2 For the purpose of this Local Plan evidence base document, an initial review of the PIAs that have occurred in the past five years (2015-2020) in proximity to the site has been undertaken utilising Crashmap.co.uk. Crashmap.co.uk enables a review of the same PIA data as typically

obtained from the local highway authority (LHA); however, does not provide the detail with respect to each specific PIA that the LHA provide.

2.4.3 **Extract 2.2** presents a view from Crashmap.co.uk in the vicinity of the site.

Extract 2.2: Crashmap.co.uk Extract

2.4.4 As presented in **Extract 2.2**, there have been very few accidents recorded in the vicinity of the site, and none recorded at the location of the proposed access. With the exception of one 'serious' accident (indicated by the red marker), all accidents have been recorded as 'slight' (orange marker). The low volume of accidents in the vicinity of the site, and notably the lack of clusters of accidents, indicated that there is not an inherent safety concern on the local highway network.

3.0 SITE ACCESS ARRANGEMENTS

3.1 Section Context

3.1.1 This section sets out the proposed vehicular, emergency, pedestrian and cycle accesses for the SA13 site allocation.

3.2 Vehicular Access

3.2.1 Approved planning application MSDC Reference DM/16/2607 permitted seven dwellings to be constructed on land at Greenacres, with access to that scheme provided from Keymer Road. The approved and implemented site access junction from the Greenacres development onto Keymer Road is shown on the drawings contained in **Appendix C**. This Keymer Road / Greenacres priority junction was designed to cater for possible future development on the now SA13 site. Internally the site access road was designed for the seven-dwelling scheme whilst safe-guarding a suitable highway alignment for future widening to allow for access to the SA13 site.

3.2.2 A Stage 1 Road Safety Audit (RSA) was undertaken for the Keymer Road / Greenacres priority junction as part of the aforementioned planning permission. The safety audit did not highlight any material safety concerns with the site access and the junction was accepted by WSCC Highways as being suitable.

3.2.3 The potential to suitably extend the route from the Greenacres development into the wider SA13 site was safeguarded, at the time of designing the Greenacres site access, as shown on **Drawing 14-205-012**. The proposed junction caters for a 5.5m wide carriageway with a 2.0m footway either side. It is considered that no specific cycle provision is required either on carriageway or through a shared footway / cycleway as there are no cycle facilities on Keymer Road for cyclists exiting the development to directly connect to.

3.2.4 The junction visibility with Keymer Road caters for the 85th percentile vehicle speeds (recorded in 2015), southbound and northbound towards the access of 42mph and 43mph respectively. The recorded vehicle speeds correspond to a Y-distance visibility at the proposed site access of 120m in accordance with the Design Manual for Roads and Bridges (DMRB) and as set out in WSCC's 'Local Design Guide – Supplementary Guidance for Residential Development Proposals'.

3.2.5 The site access junction would continue to operate within capacity with the future traffic growth and the development site traffic; refer to **Sections 5.0** and **6.0** for the traffic data and the junction capacity analysis results respectively.

3.2.6 A Stage 1 RSA has been undertaken for the proposed site access arrangement to serve the 300-dwelling scheme. The RSA does not highlight any material concerns with the site access. The RSA together with the Designer's Response is contained in **Appendix D**.

3.3 Emergency Access

3.3.1 It is considered that the potential requirement for an emergency access for the SA13 site allocation would be judged through discussion with WSCC Highways given that WSCC and the Association of Chief Fire Officers review such requirements on a case-by-case basis.

3.3.2 WSCC guidance for emergency accesses states:

'MfS [Manual for Streets] *removes the restriction on the number of units that can be served from a single point of access. The Highway Authority will provide comments on a scheme by scheme basis to assess whether proposals should include suitable provision for secondary/ emergency access.'*

3.3.3 Further to the above, MfS which WSCC refer to in their own guidance states:

'6.7.3 The Association of Chief Fire Officers has expanded upon and clarified these requirements as follows:

- *the length of cul-de-sacs or the number of dwellings have been used by local authorities as criteria for limiting the size of a development served by a single access route. Authorities have often argued that the larger the site, the more likely it is that a single access could be blocked for whatever reason. The fire services adopt a less numbers-driven approach and consider each application based on a risk assessment for the site, and response time requirements…'*

3.3.4 It should be noted that once into the wider site allocation from the proposed vehicular access, at a point c.135m east of Keymer Road, a loop road or series of loop roads through at least part of the site could be realised. A potential loop road arrangement would provide emergency service vehicles two routes to reach an emergency, accommodating a scenario in which one route might be blocked.

3.3.5 An emergency access is also achievable via Broadlands onto Keymer Road; refer to **Figure 2**. Broadlands is an adopted highway that connects to the SA13 site allocation boundary. Broadlands consists of a c.4.9m wide carriageway, with a c.3.7m wide verge on the north side and a c.3.2m wide verge on the south side along the length of the road. The available widths are comfortably able cater for emergency service vehicles in accordance with Building Regulation Approved Document B access requirements.

3.4 Additional Pedestrian and Cycle Accesses

3.4.1 As well as being an emergency access, Broadlands would also be used as an additional pedestrian and cycle access for the site. The width and alignment make Broadlands suitable to cater for a greater volume of pedestrians, than currently use the road, without the need for a separate footway, although there is sufficient adopted highway land available along this route to create a footway, if WSCC deemed this to be required at the planning application stage. Cyclists would be suitably accommodated on the existing shared surface.

3.4.2 Further to the access via Broadlands, pedestrian and cycle access would also be achieved from the northern end of the SA13 site onto Folders Lane, where there is an existing footway on the southern side. There is sufficient land to achieve a shared footpath / cycle path in this location; refer to **Drawing 14-205-105A**.

3.4.3 In addition to the aforementioned pedestrian accesses, another pedestrian access may be realised in the north western corner of the site connecting to Keymer Road. **Figure 2** presents the locations of where vehicular and pedestrian / cycle access could be achieved.

4.0 SUSTAINABLE TRANSPORT IMPROVEMENTS

4.1 General

4.1.1 This section sets out the potential pedestrian, cycle and public transport proposals and improvements that would be realised with the development.

4.2 Pedestrian and Cycle Accessibility

4.2.1 A review of the existing pedestrian and cycle accessibility between the proposed development site accesses and Burgess Hill town centre has been undertaken.

4.2.2 There is the opportunity to improve pedestrian connectivity and safety in this regard by increasing the widths of footways, providing tactile paving at bell mouth crossings and introducing new crossings on Keymer Road; refer to **Drawing 14-205-105A**.

4.2.3 The extent of the existing footway network within this study area is shown in grey on **Drawing 14-205-105A**, whilst the areas where footway widening to at least 2.0m could be implemented are shown in blue. Two new drop kerb pedestrian crossings could be realised on Keymer Road, one south of the proposed development access and one south of the Keymer Road / Folders Lane mini roundabout.

4.2.4 There is also the potential to implement a short section of footway on the west side of Keymer Road from Greenlands Road to a potentially relocated northbound bus stop. This would enable a bus stop shelter to be implemented for this stop, where there is not sufficient highway land for this in its present location. A drop kerb crossing would be implemented south of the development access to enable safe pedestrian accessibility to this potentially relocated bus stop.

4.2.5 Further to the aforementioned pedestrian improvements, the local PRoW, as set out in **Section 2.0**, could be improved through items such as all-weather surfacing, lighting and signage. It is considered that a suitable highways Section 106 contribution could be provided to WSCC to implement improvements. It is understood from the Committee Report that, in a similar manner, PRoW improvements were proposed with the Clayton Mills development and secured through a Section 106 agreement.

4.3 Public Transport Accessibility

4.3.1 All dwellings in the SA13 site allocation are proposed to be within a 700m (eight to nine minute) walk of either the existing Keymer Road or the existing Folders Lane bus stops, based on

the concept masterplan, with the nearest dwellings being within a c.200m (two to three minute) walk. As such, it is considered that a bus service does not need to access the development itself, and it is noted that WSCC's consultation response did not stipulate a requirement for a bus diversion either.

4.3.2 The operator of the local bus services, Compass Travel, have been contacted to discuss if it would be desirable to route one or more of the local bus services into the site. The correspondence regarding local bus services is presented in **Appendix E**.

4.3.3 Compass Travel, via WSCC, have advised that *'In bus terms, 300 homes is not substantial and is unlikely to be able to sustain additional resources…The 33* [bus service] *does not currently have enough slack time to loop into this site.'* Compass Travel further suggest that *'…funding is used to improve the bus stop environment, perhaps relocating the existing stops at Greenlands Drive to the south of the junction and adding shelters.'*

4.3.4 Compass Travel go on to suggest that *'It would also be useful for some funding to offer discounts for residents to try the 33 service as they occupy new homes.'*

4.3.5 The aforementioned approach, whereby buses do not divert into the proposed development, is consistent with the nearby consented 'Clayton Mills' residential development (Ref. DM/18/4979) which has not made any provision for buses to route through the development. Of note, the furthest proposed dwellings on the Clayton Mills site are situated over 600m from existing the bus stops on Ockley Road.

4.3.6 In accordance with this bus strategy, it is considered that a contribution to, or the direct provision of, improved bus stop infrastructure, including bus stop cages, bus stop kerbing and Real Time Passenger Information (RTPI) at the existing bus stops on Keymer Road and Folders Lane would be suitable. There is also the potential to relocate the northbound bus stop, on the west side of Keymer Road, further south where there is a greater extent of highway verge such that a bus stop shelter could be implemented, as shown on **Drawing 14-205-105A**. This would require a short section of new footway between the stop and Greenlands Drive, which would be achievable within the extent of adopted highway.

4.3.7 A contribution could be made by the developers towards improvements at Burgess Hill train station, including towards the provision of new or improved cycling infrastructure, as suggested by WSCC in their statutory consultee response discussed in **Section 3.0**. This provision could be secured through a Section 106 agreement.

4.3.8 It has further been suggested by WSCC that *'on-site passenger information including RTI display(s)'* be provided. These could be provided at key locations throughout the development;

however, more direct information provided from each resident's home is more likely to be implemented, such as via a development website, an 'app' for residents mobile phones and/or from within a Home Hub; refer to **Appendix F**. The Home Hubs are also offered in response to the increasing demand for home working space following the change in travel and work behaviour owing to Covid-19.

4.3.9 It is expected that the developer contribution towards off-site sustainable transport measures would be made via a Total Access Demand (TAD) contribution secured through a Section 106 Agreement. Contributions would be provided to WSCC to enable funding of cycle and bus improvements. The suggested TAD contribution is set out in the Mid Sussex Infrastructure Delivery Plan, Site Allocations DPD (September 2019).

4.4 Residential Travel Plan

4.4.1 A comprehensive Residential Travel Plan (RTP) would be submitted with any future planning application, with both hard and soft measures proposed to improve the accessibility and usability of local public transport, including personalised travel planning. The RTP would be further conditioned as part of any planning permission and implemented thereafter. The RTP would promote sustainable modes of transport to future residents of the site and would provide suitable information to aid residents to access the site via these modes. The RTP would additionally include incentives for sustainable travel, such as bus and/or cycle vouchers, which accords directly with the suggestion made by Compass Travel.

4.5 Summary

4.5.1 There is the potential to materially improve the local pedestrian network, between the development and Burgess Hill town centre, by increasing footway widths, providing suitable additional pedestrian drop kerb crossing points and implementing tactile paving.

4.5.2 By potentially relocating the northbound bus stop on Keymer Road, from north of Greenlands Drive to south of Greenlands Drive, there is sufficient highway boundary to implement a bus shelter. In order to achieve suitable pedestrian access to this relocated bus stop, a footway south of Greenlands Drive to the bus stop and a pedestrian drop kerb crossing could be implemented. All bus stops that future residents of the development may likely use could potentially be provided with bus stop cages, bus stop kerbing and RTPI implemented.

4.5.3 Within the development itself, future residents would be encouraged to use sustainable modes of transport, by potentially providing RTPI and way finding implemented at key locations on-

site, by providing residents information directly from their home (via a website, a mobile phone app and/or a Home Hub) and through the development's Travel Plan.

4.5.4 All above measures would aid in maximising the use of sustainable modes of transport and minimising vehicle trips generated by the development.

4.5.5 Some of these measures could be delivered directly by the developers, whilst others could be secured through a Section 106 agreement; this would be determined at the planning application stage. Where Section 106 contributions would come forward, these would need to comply with the National Planning Policy Framework (NPPF) Paragraphs 54 and 56, in line with Regulation 122 of the Community Infrastructure Levy.

5.0 BASELINE AND DEVELOPMENT TRAFFIC

5.1 Development Context

5.1.1 As set out earlier in this document, a pre-application scoping exercise has been undertaken with WSCC Highways including the extent of the off-site highway network to be analysed at this Local Plan stage. This would be reviewed again in advance of any future planning application(s) for the site allocation.

5.1.2 This scoping exercise with WSCC Highways has included background traffic data and committed development sites; inclusive of traffic generation and proposed highway improvements the committed developments are required to deliver (or have delivered).

5.2 Scope of Work and Methodology

5.2.1 As agreed through pre-application scoping, traffic data and committed development traffic flows sourced from the nearby consented 'Clayton Mills' development (with outline planning approval for up to 500 dwellings, Reference DM/18/4979) have been utilised to inform the developments off-site traffic impact. The data utilised principally comprises of the 2017 recorded traffic flow data, the TRICS trip rate data, and the traffic distribution and assignment methodology. Refer to **Appendix G** for extracts of the Clayton Mill Transport Assessment (TA).

5.2.2 The off-site development traffic impact assessment reviews the following junctions:

- Keymer Road / Site Access priority junction

<u>Junctions to the north of the site:</u>

- Folders Lane / Keymer Road mini-roundabout
- Folders Lane / Kings Way approved signalised junction (this traffic data has been obtained from the Transport Assessment for the 'Land Rear of 88 Folders Lane' (14/04492/FUL) which contains 2014 traffic flows, as this junction was not assessed as part of the Clayton Mills application)
- Junction Road / Silverdale Road / Keymer Road / Station Road roundabout
- Mill Road / Station Road / Station Road / Church Road mini-roundabout
- Civic Way / Station Road / Queen Elizabeth Avenue / MSDC Car Park roundabout

<u>Junctions to the south of the site:</u>

- B2116 Keymer Road / Ockley Lane priority junction
- A273 London Road / B2116 Keymer Road / A273 Brighton Hill / B2116 Hurst Road crossroads priority junction

5.3 Baseline Traffic Data

5.3.1 The baseline traffic data has been sourced from the Clayton Mills TA. In order to present a robust case, the 2031 future year traffic data has been utilised, which represents the end of the District Plan period.

5.3.2 Within the Clayton Mills TA, 2031 future year traffic data was calculated by applying TEMPro growth factors to the recorded 2017 base traffic flows. The Clayton Mills TEMPro growth factors were adjusted to account for the committed developments in proximity to the site. A total of 1,660 homes were removed from the TEMPro growth data between 2017 and 2031. Further detail in this regard is presented in **Appendix G**.

5.3.3 The Clayton Mills TA did not assess the mini-roundabout junction of Folders Lane and Kings Way. The traffic data solely for this junction has been sourced from the TA for the permitted development for the creation of 73 dwellings at the Land rear of 88 Folders Lane, Burgess Hill (Reference 14/04492/FUL). Traffic flow data was collected in 2014, and a TEMPro growth factor has been applied, removing known committed development, to forecast a 2031 scenario.

5.3.4 The proposed 300 dwellings for the Land East of Keymer Road and South of Folders Lane development would be part of the committed development traffic growth up to 2031. In order to ensure that the development's traffic generation is not 'double counted' within the 2031 growthed base traffic flows, the TEMPro growth factors have been revised, using the 'alternative assumptions' function, to account for a further reduction of 300 homes. This results in a 2017 to 2031 AM growth factor of 1.111 and a PM growth factor of 1.104, and a 2014 to 2031 AM growth factor of 1.099 and a PM growth factor of 1.100. Refer to **Appendix G** for the TEMPro calculation methodology prescribed in the Clayton Mills TA.

5.3.5 **Appendices G** and **H** contain the Clayton Mills and Land Rear of 88 Folders Lane traffic flow diagrams respectively from where the data was sourced, whilst this traffic data has been replicated on the traffic flow diagrams contained in **Appendix I**. **Appendix I** also contains the 2031 AM and PM forecast base traffic flow diagrams.

5.3.6 The Clayton Mills TA presented the traffic distribution and assignment for their proposed 500 dwelling scheme together with other committed developments, as well as that for three allocated sites being Stations Goods Yard, The Brow Burgess Hill and Burgess Hill Northern Arc, totalling 3,670 dwellings. This data is herein referred to as the 'committed developments'; refer to **Appendix I** for the respective committed development traffic flow diagrams.

5.4 Traffic Generation

5.4.1 The trips rates, as presented within Table 9.4 of the Clayton Mills TA for private residential dwellings, have been applied to the proposal of up to 300 dwellings. **Table 5.1** summaries the trip rates, together with the traffic generation for the proposed 300 dwellings.

Table 5.1: Vehicle Trip Rates and Traffic Generation

Vehicle Trips	AM Peak			PM Peak		
	In	Out	Total	In	Out	Total
Trip Rate per Dwelling	0.142	0.419	0.561	0.379	0.219	0.598
Trip Generation - Proposed 300 Dwellings	43	126	168	114	66	179

5.4.2 The trip rates applied present a robust trip rate assessment, as it uses only privately owned dwellings, whereas the proposal will also provide affordable homes which have lower vehicle trip rates. Furthermore, the trip rates presented in **Table 5.1** do not take into account the sustainable measures that would be provided with the development, further reducing the vehicle trips compared to those assessed. Whilst the full details of these measures would be provided as part of the planning application, this would include a RTP alongside improvements to the local bus services and facilities, and pedestrian infrastructure in proximity to the site as set out in **Section 4.0**.

5.5 Traffic Distribution and Assignment

5.5.1 The traffic to and from the proposed development has been distributed and assigned to the local highway network as per the methodology approved in the Clayton Mills TA, which determined trip distribution in the peak hours based upon a 2011 Census data gravity model. This assessment concluded that 55% of peak hour vehicle trips would route to / from the north and 45% of peak hour vehicle trips would route to / from the south. **Appendix G** contains the relevant extracts from the Clayton Mills TA.

5.5.2 The proposed development traffic has been assigned through the assessed junctions based on the vehicle turning proportions for the observed 2014 / 2017 base scenarios, shown in **Appendix I**. The 2031 base plus committed development plus proposed development scenario traffic flow diagrams are also shown in **Appendix I**.

6.0 JUNCTION CAPACITY ASSESSMENT

6.1 General

6.1.1 This section sets out the highway link flow analysis and junction capacity assessments for the site access and off-site junctions listed in **Section 5.0**. The full junction capacity assessment results are presented in **Appendix J**.

6.1.2 The capacity assessments of the site access and off-site junctions have been undertaken using the industry standard software packages PICADY 9, ARCADY 9 and LinSig, as per the methodology and parameters approved in the Clayton Mills TA.

6.1.3 The tables in this section summarise the peak hour Ratio of Flow to Capacity (RFC) or Degree of Saturation (DoS), driver delay and queue lengths expected at each of the assessed junctions.

6.2 Link Flow Analysis

6.2.1 **Table 6.1** sets out a summary of the highway link traffic flows in the '2031 base plus committed development' and '2031 base plus committed development plus development' scenarios and sets out the percentage increase in traffic flow due to the proposed development.

Table 6.1: Link Flow Comparison *(continued overleaf)*

Road and Location		AM Peak			PM Peak		
		2031 B+CD	2031 B+CD+D	%	2031 B+CD	2031 B+CD+D	%
Civic Way	North of Station Avenue	650	654	0.7%	952	959	0.7%
Queen Elizabeth Way	West od Civic Way	1825	1849	1.3%	1874	1894	1.1%
Station Road	East of Civic Way	2014	2046	1.6%	2113	2143	1.4%
Junction		-	-	1.3%	-	-	1.2%
Station Road	West of Church Road	1947	1979	1.7%	1852	1883	1.7%
Church Road	North of Station Road	432	437	1.2%	464	467	0.8%
Mill Road	North of Station Road	588	591	0.5%	570	578	1.3%
Station Road	East of Mill Road	1991	2031	2.0%	1940	1983	2.2%
Junction		-	-	1.6%	-	-	1.8%

Table 6.1: Link Flow Comparison *(continued)*

Road and Location		AM Peak			PM Peak		
		2031 B+CD	2031 B+CD+D	%	2031 B+CD	2031 B+CD+D	%
Station Road	North of Hoadley's Corner	2191	2231	1.8%	2289	2331	1.9%
Junction Road	East of Hoadley's Corner	815	822	0.8%	923	931	0.8%
Silverdale Road	East of Hoadley's Corner	352	354	0.6%	239	241	0.8%
Keymer Road	South of Hoadley's Corner	1793	1843	2.7%	2003	2055	2.6%
Junction		-	-	1.9%	-	-	1.9%
Keymer Road	North of Folders Lane	1665	1715	3.0%	1838	1890	2.9%
Keymer Road	South of Folders Lane	1393	1475	5.9%	1352	1420	5.0%
Folders Lane	East of Keymer Road	1437	1480	3.0%	1576	1622	2.9%
Junction		-	-	3.9%	-	-	3.5%
Folders Lane	West of Kings Way	1484	1527	2.9%	1537	1583	3.0%
Kings Way	North of Folders Lane	553	562	1.5%	629	641	2.0%
Folders Lane	East of Kings Way	1301	1336	2.7%	1241	1274	2.7%
Junction		-	-	2.6%	-	-	2.7%
Ockley Lane	North of B2116 Keymer Road	867	923	6.5%	928	984	6.0%
B2116 Keymer Road	East of Ockley Lane	1008	1041	3.2%	1037	1075	3.6%
B2116 Keymer Road	West of Ockley Lane	840	864	2.9%	657	675	2.7%
Junction		-	-	4.1%	-	-	4.2%
B2116 Keymer Road	East of A273 London Road	1240	1283	3.5%	1031	1075	4.2%
A273 Brighton Road	South of B2116 Keymer Road	1081	1099	1.7%	1158	1190	2.7%
B2116 Hurst Road	West of B2116 Keymer Road	960	982	2.2%	738	758	2.6%
A273 London Road	North of B2116 Keymer Road	1397	1414	1.2%	1548	1563	1.0%
Junction		-	-	2.1%	-	-	2.4%

6.2.2 As shown in **Table 6.1**, the proposed development would increase traffic by no more than 4.2% at any analysed junction on the local highway network. The largest proportional increases in traffic on any road would occur on Keymer Road (5.9%) and Ockley Lane (6.5%).

6.2.3 The increases in traffic due to the proposed development at the three town centre junctions would be less than 2% and at the A273 / B2116 signalised junction would be no more than 2.4%.

6.3 Keymer Road / Site Access Priority Junction

6.3.1 **Table 6.2** sets out a summary of the junction capacity assessment of the Keymer Road / Site Access priority junction.

Table 6.2: Keymer Road / Site Access Priority Junction

	AM Peak			PM peak		
	Queue	RFC	Delay (Seconds)	Queue	RFC	Delay (Seconds)
	2031 Base + Committed Development + Development					
Site Access	1	0.35	14	0	0.22	14
Keymer Road	0	0.06	5	1	0.19	5

6.3.2 As is shown in **Table 6.2**, the proposed site access and Keymer Road right turn movement into the development are forecast to operate with significant spare capacity in the '2031 base plus committed development plus development' scenario. As such, the junction is considered to be a suitable arrangement for access onto the local highway network in terms of capacity, whilst its design has been discussed in **Section 3.0**.

6.4 Keymer Road / Folder Lane Junction

6.4.1 As part of the Clayton Mills development, improvements were proposed to the Keymer Road / Folders Lane mini roundabout. Over the course of gaining planning permission, between the initial planning application submission and receiving planning approval, Clayton Mills proposed two improvement schemes for the mini roundabout.

6.4.2 The first mitigation scheme proposal comprised of widening each arm of the mini roundabout to accommodate two lanes at entry; refer to **Appendix G** for the mitigation design; however, this was not accepted by WSCC Highways. As such, a second mitigation scheme was proposed, which formed part of the planning approval, for the provision of an increased flare on the northern Keymer Road arm of the mini roundabout to accommodate two entry lanes, with no mitigation proposed to the other two arms of the junction; refer to **Appendix G** for the mitigation design.

6.4.3 The results of the junction capacity assessment of the proposed mitigation scheme, comprising of increasing the flare of the mini-roundabout, is presented in **Table 6.3**.

Table 6.3: Keymer Road / Folders Lane Mini Roundabout – With Northern Arm Mitigation

	AM Peak			PM peak		
	Queue	RFC	Delay (Seconds)	Queue	RFC	Delay (Seconds)
	2031 Base					
Folders Lane	5	0.84	24	4	0.82	21
Keymer Road (South)	2	0.61	15	1	0.57	13
Keymer Road (North)	1	0.57	7	3	0.74	11
2031 Base + Committed Development						
Folders Lane	22	1.01	91	16	0.98	73
Keymer Road (South)	14	0.98	90	4	0.81	29
Keymer Road (North)	2	0.69	10	11	0.94	37
2031 Base + Committed Development + Development						
Folders Lane	28	1.03	111	30	1.04	120
Keymer Road (South)	8	0.92	57	5	0.86	37
Keymer Road (North)	3	0.75	12	17	0.97	54

6.4.4 As demonstrated in **Table 6.3**, even with the proposed mitigation works by the year 2031 with the committed developments the mini-roundabout is expected to operate over capacity on two arms in the AM and PM peak periods. Traffic from the development proposal would, however, only marginally increase the RFCs on the Folders Lane (worst-case) arm of the junction by 0.02 in the AM and 0.06 in the PM peak hours. It should also be noted that the once the theoretical capacity of a junction is exceeded, the output results of the junction modelling software become increasingly unstable with the forecast results not necessarily reflecting reality.

6.4.5 It should be noted that the Land to the Rear of 88 Folders Lane development did not propose any improvements to this junction and the Clayton Mills development only proposed mitigation to the northern arm of the junction, which it is understood from the Committee Report was secured via a Section 106 agreement. It is however, understood that these developments also provided Section 106 contributions, as WSCC considered appropriate, to improve the local highway network.

6.5 Keymer Road / Kings Way Signalised Junction

6.5.1 The TA submitted with the Land to the Rear of 88 Folders Lane planning application included capacity analysis for this junction. This capacity analysis and the signalised junction design is presented in **Appendix H**.

6.5.2 The results contained in Appendix N of the TA were only 'basic' results and as such it has not been possible to replicate the junction analysis with the traffic flows set out in **Appendix I**. Nonetheless, the capacity analysis for the Land to the Rear of 88 Folders Lane application demonstrated that this junction would have a maximum DoS on any given arm of the junction of just

60.2% and a minimum PRC of 45.2%. As such, there is material spare capacity within the signalised junction to cater for a significant increase in traffic.

6.5.3 Furthermore, as can be seen in **Table 6.1**, that the proposed development would only increase traffic through this junction by a maximum of 3.0% on any given arm, compared to the '2031 base plus committed development' scenario.

6.6 Junction Road / Silverdale Road / Keymer Road / Station Road Roundabout

6.6.1 **Table 6.5** sets out a summary of the junction capacity assessment for Junction Road / Silverdale Road / Keymer Road / Station Road roundabout.

Table 6.5: Junction Road / Silverdale Road / Keymer Road / Station Road Roundabout

	AM Peak			PM peak		
	Queue	RFC	Delay (Seconds)	Queue	RFC	Delay (Seconds)
			2031 Base			
Silverdale Road	1	0.32	11	0	0.24	10
Keymer Road	2	0.70	11	1	0.59	7
Station Road	2	0.64	8	5	0.86	17
Junction Road	2	0.60	11	1	0.43	8
			2031 Base + Committed Development			
Silverdale Road	1	0.38	13	0	0.31	14
Keymer Road	8	0.92	26	3	0.72	10
Station Road	3	0.75	11	30	1.06	55
Junction Road	3	0.74	17	2	0.69	16
			2031 Base + Committed Development + Development			
Silverdale Road	1	0.38	14	1	0.32	14
Keymer Road	11	0.95	31	3	0.74	11
Station Road	3	0.76	11	36	1.09	63
Junction Road	3	0.75	17	2	0.70	16

6.6.2 As presented in **Table 6.5** the committed development traffic would result in the Keymer Road arm of the junction operating over capacity in the AM peak period and the Station Road arm of the junction operating over capacity in the PM peak period.

6.6.3 The proposed development would only increase the delay on the Keymer Road arm of the junction by five seconds and the RFC would remain below 1.0. The proposed development traffic would only increase the RFC on the Station Road arm of the junction by 0.03 in the PM peak period.

6.6.4 It is considered that the proposed development traffic would not have a severe impact on the operation of the junction, with only one arm of the junction operating with an RFC over 1.0, and this only being in one of the peak periods which would operate in a similar manner even without the

proposed development traffic. No mitigation measures are, therefore, considered to be required due to the proposed development's traffic impact at the junction.

6.7 Mill Road / Station Road / Station Road / Church Road Mini-Roundabout

6.7.1 **Table 6.6** sets out a summary of the junction capacity assessment for Mill Road / Station Road / Station Road / Church Road mini-roundabout.

Table 6.6: Mill Road / Station Road / Station Road / Church Road Mini-Roundabout

	AM Peak			PM peak		
	Queue	**RFC**	**Delay (Seconds)**	**Queue**	**RFC**	**Delay (Seconds)**
			2031 Base			
Mill Road	2	0.70	20	2	0.72	24
Station Road (East)	2	0.61	6	1	0.43	4
Station Road (West)	1	0.49	6	2	0.60	1
Church Road	0	0.00	0	0	0.00	0
			2031 Base + Committed Development			
Mill Road	12	1.02	64	27	1.23	128
Station Road (East)	4	0.79	11	1	0.54	5
Station Road (West)	2	0.62	8	5	0.83	15
Church Road	0	0.00	0	0	0.00	0
			2031 Base + Committed Development + Development			
Mill Road	13	1.03	68	30	1.28	142
Station Road (East)	4	0.81	12	1	0.55	5
Station Road (West)	2	0.63	8	5	0.85	17
Church Road	0	0.00	0	0	0.00	0

6.7.2 The results in **Table 6.6** demonstrate that the committed development traffic would result in the Mill Road arm of the junction operating over capacity in the AM and PM peak periods. This is due to the main flow of traffic travelling on Station Road, which results in the mini-roundabout operating more akin to a priority junction, and therefore preventing traffic from exiting Mill Road.

6.7.3 It is considered that the proposed development traffic would not have a severe impact on the operation of the roundabout, as it would only increase the RFC on the worst operating Mill Road arm of the junction by 0.01 in the AM peak and by 0.05 in the PM peak. The Mill Road arm of the junction would experience queue increases of only one and three vehicles in the AM and PM peak periods respectively. No mitigation measures are, therefore, considered to be required due to the proposed development's traffic impact at the junction.

6.8 Civic Way / Station Road / McDonald's / Queen Elizabeth Avenue Roundabout

6.8.1 As shown in **Table 6.1**, the proposed development would result no more than a 1.6% increase in traffic on any given arm of the Civic Way / Station Road / McDonald's / Queen Elizabeth Avenue roundabout. Furthermore, the proportional increase in traffic at this junction due to the proposed development traffic would be less than at the Junction Road / Silverdale Road / Keymer Road / Station Road roundabout and Mill Road / Station Road / Station Road / Church Road mini-roundabout as analysed earlier in this section, which demonstrated that the proposed development would not have a material impact on the operation of these junctions. As such, it is considered that no further analysis at this roundabout is necessary and no mitigation measures would be required.

6.9 B2116 Keymer Road / Ockley Lane Priority Junction

6.9.1 **Table 6.7** sets out a summary of the junction capacity assessment for B2116 Keymer Road / Ockley Lane priority junction. The junction has been modelled without a flare, as per the Clayton Mills TA.

Table 6.7: B2116 Keymer Road / Ockley Lane Priority Junction

	AM Peak			PM peak		
	Queue	RFC	Delay (Seconds)	Queue	RFC	Delay (Seconds)
2031 Base						
Ockley Lane	4	0.81	29	2	0.64	18
B2116 Keymer Road	0	0.19	6	1	0.51	10
2031 Base + Committed Development						
Ockley Lane	21	1.12	93	4	0.85	34
B2116 Keymer Road	1	0.35	8	3	0.72	17
2031 Base + Committed Development + Development						
Ockley Lane	31	1.22	124	6	0.91	42
B2116 Keymer Road	1	0.36	8	4	0.77	20

6.9.2 A mitigation scheme for the priority junction of Keymer Road and Ockley Lane was proposed as part of the Clayton Mills planning application, however WSCC highways requested that this scheme was removed from the application owing to safety concerns for non-motorised users.

6.9.3 The priority junction was discussed at length between the applicant and WSCC highways, as part of the Clayton Mills application; refer to the extracted correspondence in **Appendix G**. This correspondence concluded that the delay and queuing at the junction would only occur for a short part of the day (AM peak period), and there are no existing safety issues at this junction that would worsen with an increase in traffic. Consequently, it is was concluded that the impact on this junction, due to the Clayton Mills development traffic, would not be severe in accordance with the NPPF.

6.9.4 As shown in **Table 6.7**, the largest change in traffic impact at the junction would be due to the committed development traffic, with the proposed development having a smaller further impact on the operation of the junction. Whilst the proposed development traffic would increase queuing and delay at the junction, it is considered that this would not result in a severe impact on the operations of the junction. No mitigation measures are, therefore, considered to be required due to the proposed development's traffic impact at the junction.

6.10 A273 London Road / B2116 Keymer Road / A273 Brighton Hill / B2116 Hurst Road Signalised Junction

6.10.1 As shown in **Table 6.1**, the proposed development would result no more than a 2.4% increase in traffic at the junction with no more than a 4.2% increase on any given arm of the A273 / B2116 signalised junction. The proportional increase in traffic at this junction, due to the proposed development traffic, would be less than at the B2116 Keymer Road / Ockley Lane priority junction as analysed earlier in this section, which demonstrated that the proposed development would not have a severe impact on the operation of the junction.

6.10.2 Furthermore, this junction is a signalised junction and, as such, the increase in traffic at this junction due to the development proposals would not have a noticeable impact on the safety or delay to pedestrians. WSCC has the ability to alter the green times given to different phases and stages, and to alter the cycle time at the junction, in order to suitably manage the traffic travelling through the junction as they determine to be suitable. As such, it is considered that no further analysis at this signalised junction is required.

6.11 Summary

6.11.1 It has been demonstrated that the development traffic impact at the off-site junctions would not be severe. Given the level of operation of these junctions without the proposed development and accounting for the development traffic impact, it is considered suitable that the developers provide a financial contribution to WSCC to enable suitable funding of highway improvements, secured through a Section 106 agreement.

6.11.2 This contribution, which would be determined at the planning application stage, may aid in junction capacity improvements or improvements with respect to sustainable transport measures aimed at reducing the need of people to travel by motor vehicle. Where Section 106 contributions would come forward, these would need to comply with the National Planning Policy Framework (NPPF) Paragraphs 54 and 56, in line with Regulation 122 of the Community Infrastructure Levy.

7.0 SUMMARY AND CONCLUSIONS

7.1 Summary

7.1.1 Odyssey has undertaken this Highway Appraisal Assessment relating to the site promotion, through the Mid-Sussex District Council Local Plan process, of the proposed residential development of at Land East of Keymer Road and South of Folders Lane, Burgess Hill. The Site Allocations DPD Draft Submission (Regulation 19) has been published in which this land parcel has been included as Policy Reference SA13 for 300 dwellings.

7.1.2 Vehicular access to the site would be via the existing access into Greenacres, from Keymer Road, using safeguarded land for a suitable 5.5m wide carriageway with a 2.0m footway either side. A Stage 1 Road Safety Audit has been undertaken with respect to the safety of this proposed access for 300 dwellings and did not highlight any material concerns.

7.1.3 A pedestrian, cycle and emergency access would be realised via Broadlands onto Keymer Road, whilst a further pedestrian and cycle access would be achieved onto Folder Lane. These accesses, as well as a permeable on-site highway network, would allow for good connectivity to off-site infrastructure.

7.1.4 It has been confirmed with West Sussex County Council that there would not be a requirement for a bus service to access the site, but rather future residents would access the existing bus services on Keymer Road and Folders Lane, via the aforementioned site accesses.

7.1.5 The development would enable improvements to be made to the off-site pedestrian environment between the site accesses and Burgess Hill town centre through footway widening, implementing tactile paving at drop kerb crossings and introducing new crossings. The northbound bus stop on Keymer Road currently situated north of Greenlands Drive could be relocated south of Greenlands Drive. This would enable a bus stop shelter to be implemented, along with a short section of footway and a new drop kerb crossing across Keymer Road.

7.1.6 The traffic impact of the proposed development has been analysed, using the Clayton Mills development traffic data as a baseline. It has been determined that the site access junction would operate comfortably within capacity.

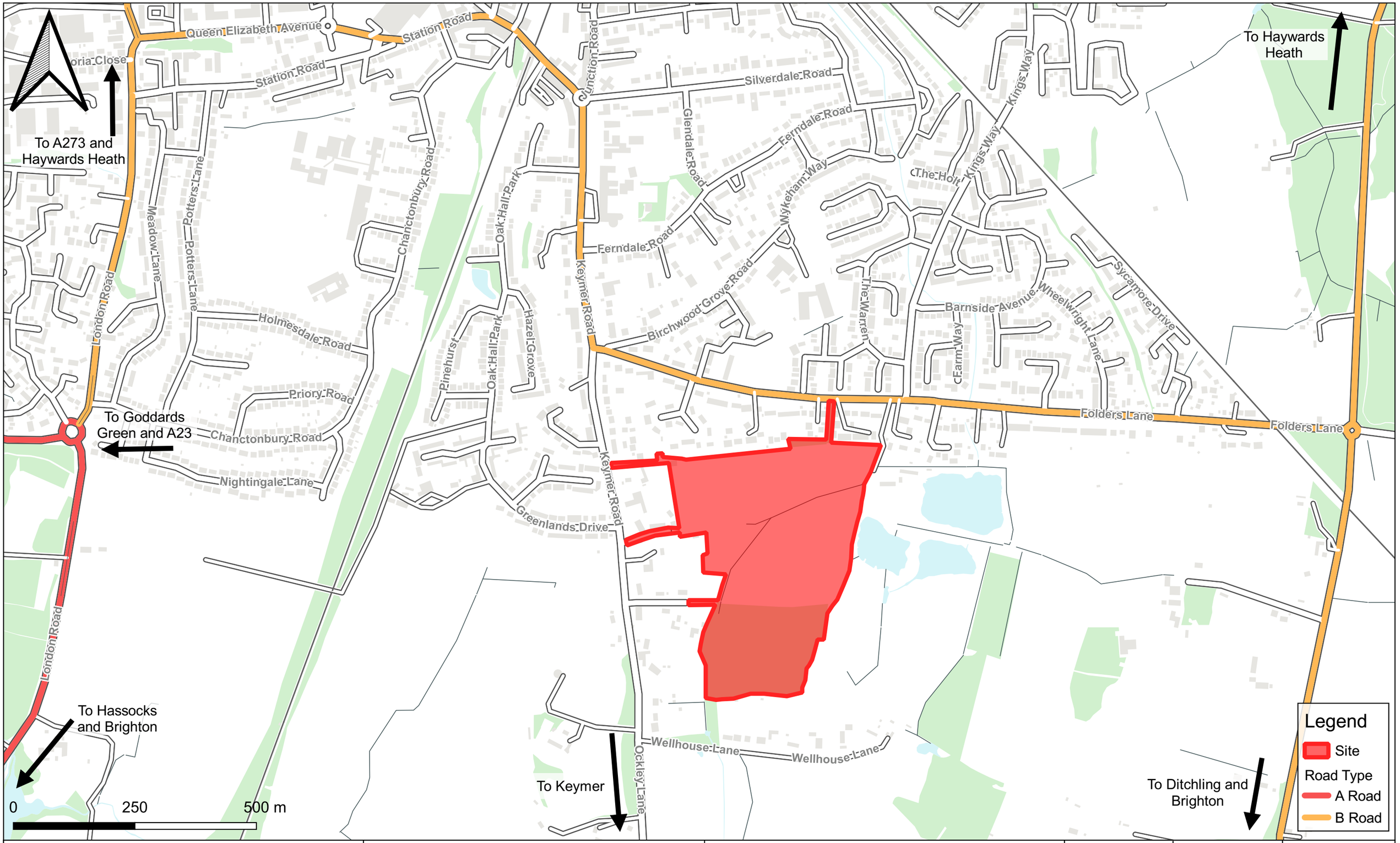
7.1.7 The Keymer Road / Folders Lane mini roundabout would operate over capacity in the '2031 plus committed development' scenario. This was the case at the time of the Clayton Mills planning application and a minor junction improvement was proposed with that planning application.

7.1.8 It has been demonstrated that the development traffic impact at the off-site junctions would not be severe. Given the level of operation of these junctions without the proposed development and accounting for the development traffic impact, it is considered suitable that the developers provide a financial contribution to West Sussex County Council to enable suitable funding of highway improvements, secured through a Section 106 agreement. This contribution may aid in junction capacity improvements or improvements with respect to sustainable transport measures aimed at reducing the need of people to travel by motor vehicle.

7.2 Conclusions

7.2.1 It is considered that the draft allocated development of 300 dwellings could be realised and in turn would not be contrary to NPPF Paragraph 109, which states *'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe'*.

FIGURES



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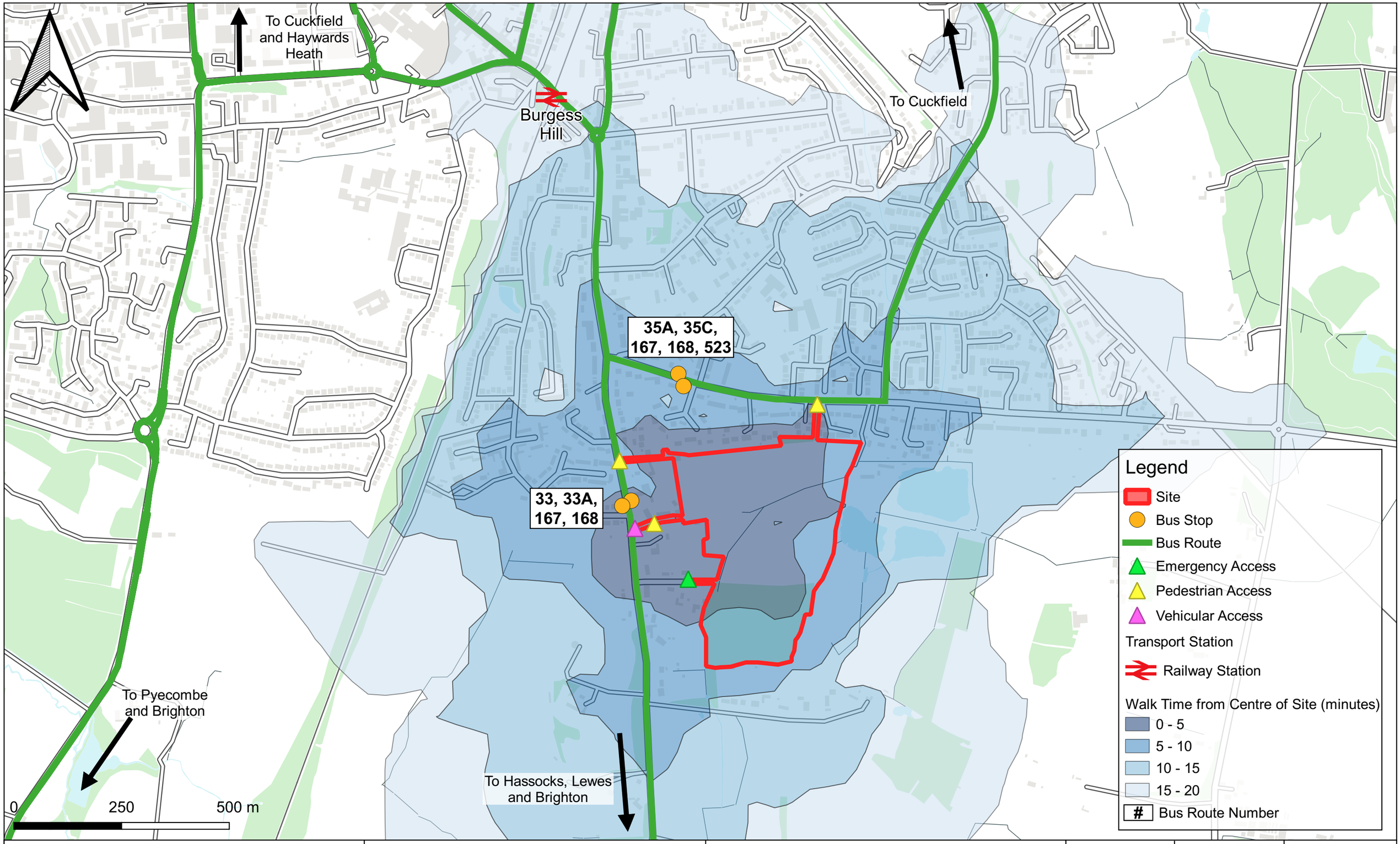
Job Title
LAND AT KEYMER ROAD, BURGESS HILL

Drawing Title
SITE LOCATION AND HIGHWAY CONTEXT

Client
THAKEHAM HOMES

Scale	Date	Designed
NTS	OCT '20	AG
Drawn	Checked	Approved
AG	ESH	BM
Job No	Figure No	Rev
14-205	FIGURE 1	



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Job Title
LAND AT KEYMER ROAD, BURGESS HILL

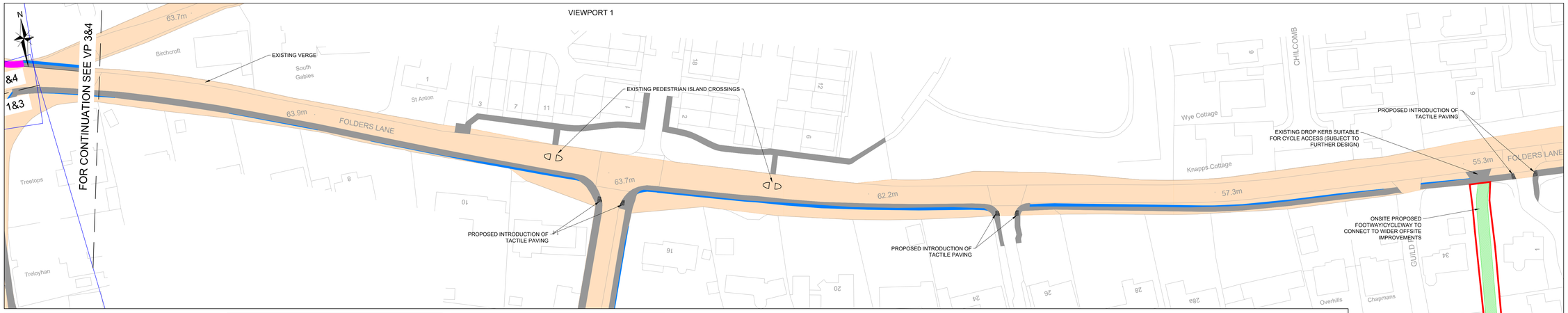
Drawing Title
PUBLIC TRANSPORT ACCESSIBILITY PLAN

Client
THAKEHAM HOMES

Scale	Date	Designed
NTS	OCT '20	AG
Drawn	Checked	Approved
AG	ESH	BM
Job No	Figure No	Rev
14-205	FIGURE 2	

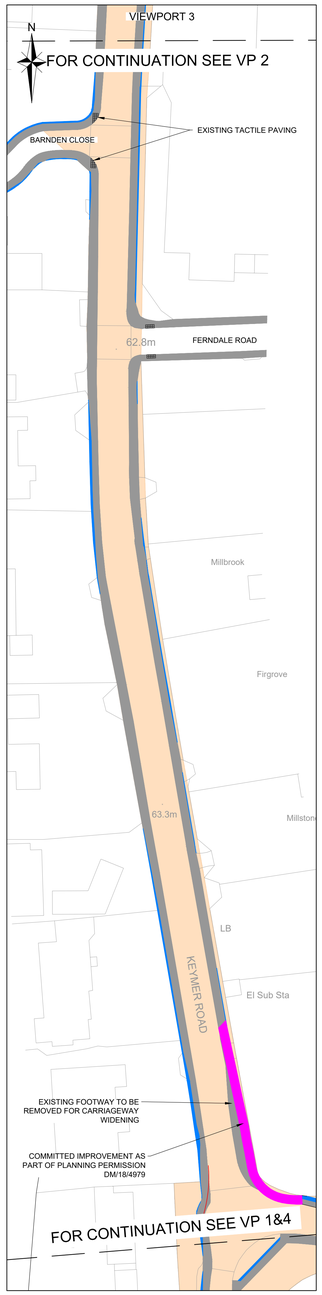
DRAWINGS

VIEWPORT 1

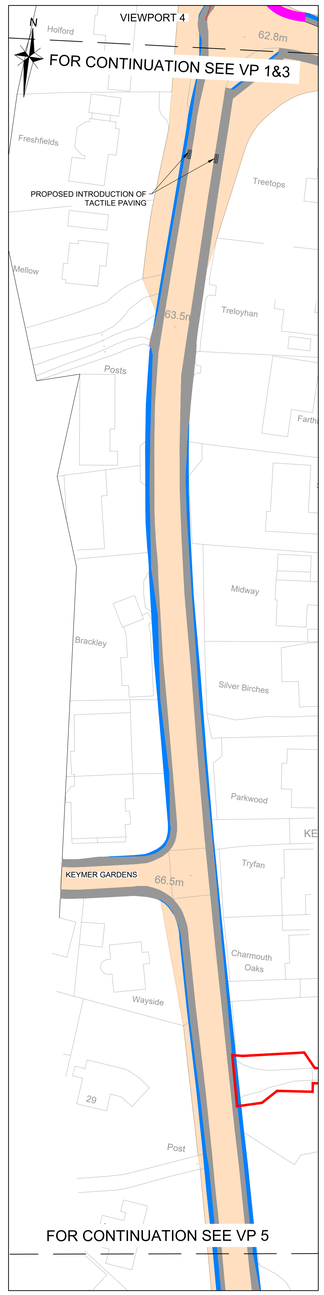


VIEWPORT 2

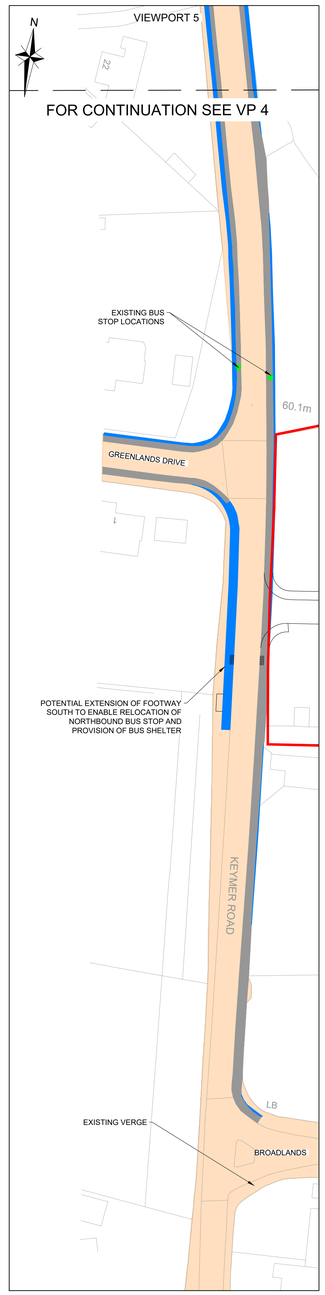
VIEWPORT 3

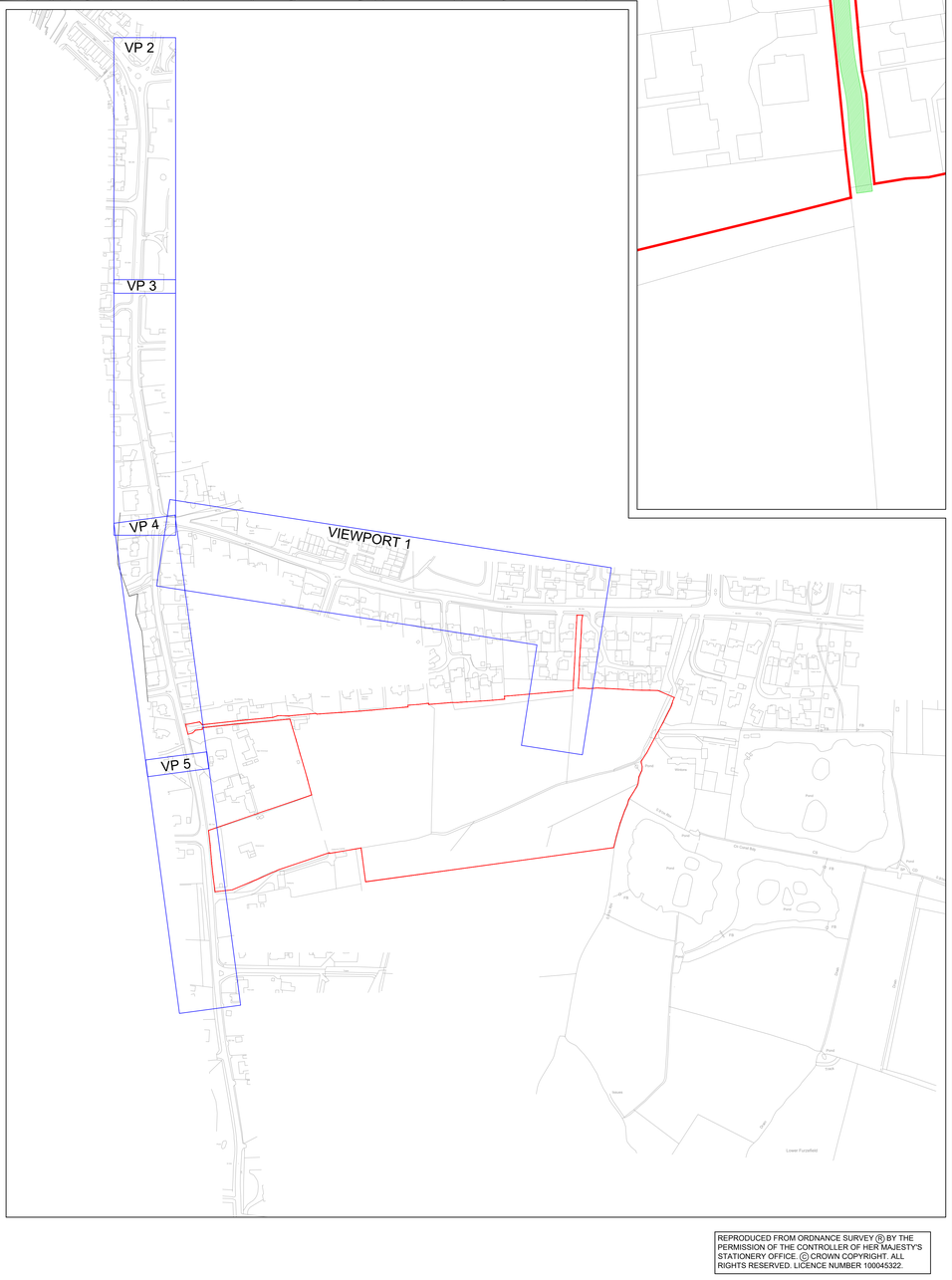


VIEWPORT 4



VIEWPORT 5





NOTES

- SITE BOUNDARY
- HIGHWAY BOUNDARY
- EXISTING FOOTWAYS
- IMPACT OF WIDENING FOOTWAYS TO 2.0m

Rev	Amendments	Drn	Chk	App	Date
A	ADDITIONS TO DRAWING	MS	BM	BM	05/11/20

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Job Title
FOLDERS LANE, BURGESS HILL

Drawing Title
POTENTIAL PEDESTRIAN INFRASTRUCTURE IMPROVEMENTS

Client
THAKEHAM HOMES

Scale	Date	Designed
1:500 @A0	OCT 20	MS
Drawn	Checked	Approved
MS	BM	BM
Job No	Drawing No	Rev
14-205	14-205/105	A

P:\14-205 - Land at Keymer Road, Burgess Hill\Tech\Acad\Drawings\100 Series\14-205-105 Potential Pedestrian Infrastructure Improvements.dwg

APPENDIX A

Pre-Application Scoping with West Sussex County Council

From:	Stephen Gee
To:	Emily Scott-Holt
Cc:	Ben Muirhead
Subject:	RE: SA13 Land East of Keymer Road and South of Folders Lane, Burgess Hill
Date:	19 October 2020 16:00:43
Attachments:	image001.png image002.png

Emily,
Thanks for the notes below… the only change I would highlight is that LTN 1/20 should be considered for the sustainable transport infrastructure.

Regards

Stephen

From: Emily Scott-Holt <escott-holt@odysseyconsult.co.uk>
Sent: 16 October 2020 15:20
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Ben Muirhead <bmuirhead@odysseyconsult.co.uk>
Subject: RE: SA13 Land East of Keymer Road and South of Folders Lane, Burgess Hill

Hello Stephen,

Following our meeting on Tuesday please see below for the meeting notes. If you feel that anything has been missed or would like to emphasise anything further please let me know.

Access Strategy:

- WSCC confirmed that a single point of vehicular access should be acceptable, however a ghost right turn lane should be considered. If this is not proposed this should be justified, including details with respect to visibility splays, capacity analysis and a road safety audit, all of which would be presented to WSCC.
- WSCC confirmed that they do not have a specific threshold for the number of accesses required for new developments. WSCC consider that the single vehicular access with a further emergency vehicle access, from Broadlands, appears to be suitable. WSCC noted the sub-standard visibility splays achievable from Broadlands, but given the likely frequency of emergency service vehicle movements using this access it is not likely to be a material concern; however, any remedial works to improve visibility would be welcomed.
- WSCC recommended that the development provide as many pedestrian / cycle accesses as feasible, with the design of these taking account of WSCC cycling design guide. WSCC recommended that when providing infrastructure it should be designed to link into existing infrastructure on both sides of the carriageway; a key note for the pedestrian / cycle connection to Folder Lane.

Sustainable Transport:

- Initial correspondence has been undertaken with Compass Travel and it expected that they will not want to divert a bus service into the site. WSCC consider that improvements should be provided to local bus stops. This may include potential for moving bus stops to better serve the development whilst not disadvantaging local residents. Details with respect to encouraging future residents to use the local bus services will be set out,

including the provision of Real Time Passenger Information, on-site wayfinding, home hub technology etc.; providing evidence of the developers sustainable transport commitment.
- WSCC welcomed the proposed footway / cycle audit focusing on the key route between the site and Burgess Hill train station and town centre, including links to the Green Cycle Network around Burgess Hill. This will include a review of the proposals agreed as part of the Clayton Mills development.

Off-Site Junctions:

- Odyssey will confirm the TEMPro areas used with respect to the traffic data from the Clayton Mills development and provide justification of the method used.
- Odyssey suggested the Travel Plan measures would be set out, in part, to help justify a reduction in vehicle trips. WSCC, however, advised that this would need 'something over and above the usual' to justify reduced vehicle trips to / from the development.
- It was agreed that the junction mitigation proposal for the Keymer Road / Folders Lane mini roundabout would need to be cost effective, as WSCC advised that this was (at least in part) why the original mitigation scheme proposed by Clayton Mills, for two lane entries, was paired back.
- WSCC considered that traffic signals at the Keymer Road / Folders Lane mini roundabout would be viewed as being out of character for the area with there being no other traffic signalised junctions nearby. It was agreed that this would also likely be the view taken by the local residents associations. [Post meeting note - Odyssey note that to the east of the site at the mini-roundabout of Folders Lane / Kings Way it is proposed to mitigate the junction to a signal controlled priority junction as part of the Kingsway development (currently under construction). As such, and for robustness, Odyssey will investigate a traffic signalised junction option even if not taken forward.]
- The scope of the key junctions proposed to be assessed in the first instance appears to be acceptable to WSCC; however, Odyssey will provide WSCC with the development vehicle trip generation, distribution and assignment to agree this.
- WSCC are happy to undertake further ongoing discussions prior to writing a formal response, to try to find the most suitable highways solutions for the development to be considered acceptable in highways terms.

If you have any questions or queries please let myself and Ben know.

Kind regards,

Emily Scott-Holt | Principal Transport Planner

MCIHT

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From: Ben Muirhead
Sent: 09 October 2020 09:51
To: Stephen Gee <Stephen.Gee@westsussex.gov.uk>
Cc: Emily Scott-Holt <escott-holt@odysseyconsult.co.uk>

APPENDIX B

Bus Timetables and Map

HURSTPIERPOINT - Hassocks - Burgess Hill - HAYWARDS HEATH

Including school route 331 from Sayers Common to Downlands School

33

Mondays to Fridays (except Public Holidays)

		Sch	33A Sch		331 Sch	Sch					
HURSTPIERPOINT, Willow Way	0645			0745	B	0815	0850	0950	1050	1150	1250
Hurstpierpoint Church	0649			0750	0812	0821	0854	0954	1054	1154	1254
Hassocks, Stone Pound	0654			0756	0819	0828	0900	1000	1100	1200	1300
Hassocks, Post Office	0656			0759	0821	0830	0902	1002	1102	1202	1302
Grand Avenue, Thatched Inn	0659			0802	D	D	0905	1005	1105	1205	1305
Burgess Hill Station	0704		0733	0810			0911	1011	1111	1211	1311
BURGESS HILL, Church Road	0705		0735	0812			0912	1012	1112	1212	1312
Maple Drive, Petworth Drive	0709		0743A	0817			0917	1017	1117	1217	1317
Wivelsfield Station	0713	0745	0748	0821			0921	1021	1121	1221	1321
Valebridge Road	0716	0748	0751	0824			0924	1024	1124	1224	1324
Ashenground Estate, Sheppeys	0724	0756	0759	0832			0931	1031	1131	1231	1331
Princess Royal Hospital	0728	▼	▼	0856#			0936	1036	1136	1236	1336
HAYWARDS HEATH, South Road	0731	0802	0804	0837			0939	1039	1139	1239	1339
Perrymount Road	0735	▼	0808	0841			0943	1043	1143	1243	1343
Haywards Heath Sainsbury's	▼	▼	▼				0945	1045	1145	1245	1345
Cuckfield, Warden Park School	0744S	0810	0818								

		Sch	H			
HURSTPIERPOINT, Willow Way	1350	1450	1450	1550	1650	1800
Hurstpierpoint Church	1354	1454	1454	1554	1654	1804
Hassocks, Stone Pound	1400	1500	1500	1600	1700	1810
Hassocks, Post Office	1402	1502	1502	1602	1702	1812
Grand Avenue, Thatched Inn	1405	1505	1505	1605	1705	1815
Burgess Hill Station	1411		1511	1612	1713	1823
BURGESS HILL, Church Road	1412		1512	1614	1715	1825
Maple Drive, Petworth Drive	1417		1517	1619	1720	
Wivelsfield Station	1421		1521	1623	1725	
Valebridge Road	1424		1524	1626	1729	
Ashenground Estate, Sheppeys	1431		1531	1633	1736	
Princess Royal Hospital	1436		1536	1638	1741	
HAYWARDS HEATH, South Road	1439		1539	1641	1744	
Perrymount Road	1443		1543	1645	1748	
Haywards Heath Sainsbury's	1445			1647	1750	

Sch - operates on schooldays only
S - serves this point on schooldays only
A - operates via Lower Church Road, London Road, Maple Drive & Bramber Way
B - operates from Sayers Common at 0800
D - continues to Downlands School
H - operates in school holidays only
- serves Princess Royal Hospital on the return journey; passengers may stay on the bus

HAYWARDS HEATH - Burgess Hill - Hassocks - HURSTPIERPOINT

33

Mondays to Fridays (except Public Holidays)

	Sch	H							Sch	Sch	
Haywards Heath Sainsbury's				0950	1050	1150	1250	1350			1450
Perrymount Road		0750	0850	0952	1052	1152	1252	1352			1452
HAYWARDS HEATH, South Road		0754	0854	0956	1056	1156	1256	1356			1456
Princess Royal Hospital		0757	0856	0959	1059	1159	1259	1359			1459
Ashenground Estate, Sheppeys		0802	0901	1004	1104	1204	1304	1404			1504
Valebridge Road		0807	0909	1011	1111	1211	1311	1411			1511
Wivelsfield Station		0813	0912	1014	1114	1214	1314	1414			1514
Maple Drive, Petworth Drive		0817	0916	1018	1118	1218	1318	1418			1518
BURGESS HILL, Church Road		0821	0922	1022	1122	1222	1322	1422			1522
Burgess Hill Station		0823	0925	1025	1125	1225	1325	1425			1525
Grand Avenue, Thatched Inn		0829	0931	1031	1131	1231	1331	1431			▼
Keymer Library		▼	▼	▼	▼	▼	▼	▼	1518t	1518t	1531
Hassocks, Post Office	0830	0832	0934	1034	1134	1234	1334	1434	1520	1520	1534
Hassocks, Stone Pound	0833	0834	0936	1036	1136	1236	1336	1436	1522	1522	1536
Hurstpierpoint Church	0840	0840	0942	1042	1142	1242	1342	1442	1528	1528	1542
HURSTPIERPOINT, Willow Way	0844	0844	0946	1046	1146	1246	1346	1446	1532	1532	1546

	Sch	33A Sch	33A H		
Cuckfield, Warden Park School	1525	1533			
Haywards Heath Sainsbury's	▼	1545		1655	1805
Perrymount Road	▼	1547	1547	1657	1807
HAYWARDS HEATH, South Road	1533	1551	1551	1701	1811
Princess Royal Hospital	▼	▼	▼	1704	1814
Ashenground Estate, Sheppeys	1538B	1556	1556	1709	1819
Valebridge Road		1604	1604	1717	1827
Wivelsfield Station		1607	1607	1720	1830
Maple Drive, Petworth Drive		1613A	1613A	1725	1834
BURGESS HILL, Church Road		1621	1621	1730	1838
Burgess Hill Station		1623	1623	1733	1841
Grand Avenue, Thatched Inn		1629	1629	1740	1847
Hassocks, Post Office		1632	1632	1743	1850
Hassocks, Stone Pound		1634	1634	1745	1852
Hurstpierpoint Church		1640	1640	1751	1858
HURSTPIERPOINT, Willow Way		1644	1644	1755	1902

Please see next page for Saturday timetable

A - operates via Bramber Way, Maple Drive, London Road and Lower Church Road
B - Continues to Bolding Way, Burchetts Close, arriving at 1543
H - operates during school holidays only
Sch - operates on schooldays only
t - time at Orion Parade

HURSTPIERPOINT - Hassocks - Burgess Hill - HAYWARDS HEATH

33

Saturdays

HURSTPIERPOINT, Willow Way	0750	0850	0950	1050	1150	1250	1350	1550
Hurstpierpoint Church	0754	0854	0954	1054	1154	1254	1354	1554
Hassocks, Stone Pound	0800	0900	1000	1100	1200	1300	1400	1600
Hassocks, Post Office	0802	0902	1002	1102	1202	1302	1402	1602
Grand Avenue, Thatched Inn	0805	0905	1005	1105	1205	1305	1405	1605
Burgess Hill Station	0811	0911	1011	1111	1211	1311	1411	1611
BURGESS HILL, Church Road	0812	0912	1012	1112	1212	1312	1412	1612
Maple Drive, Petworth Drive	0817	0917	1017	1117	1217	1317	1417	1617
Wivelsfield Station	0821	0921	1021	1121	1221	1321	1421	1621
Valebridge Road	0824	0924	1024	1124	1224	1324	1424	1624
Ashenground Estate, Sheppeys	0831	0931	1031	1131	1231	1331	1431	1631
Princess Royal Hospital	0836	0936	1036	1136	1236	1336	1436	1636
HAYWARDS HEATH, South Road	0839	0939	1039	1139	1239	1339	1439	1639
Perrymount Road	0843	0943	1043	1143	1243	1343	1443	1643
Haywards Heath Sainsbury's	0845	0945	1045	1145	1245	1345	1445	1645

Haywards Heath Sainsbury's	0850	0950	1050	1150	1250	1450	1650
Perrymount Road	0852	0952	1052	1152	1252	1452	1652
HAYWARDS HEATH, South Road	0856	0956	1056	1156	1256	1456	1656
Princess Royal Hospital	0859	0959	1059	1159	1259	1459	1659
Ashenground Estate, Sheppeys	0904	1004	1104	1204	1304	1504	1704
Valebridge Road	0911	1011	1111	1211	1311	1511	1711
Wivelsfield Station	0914	1014	1114	1214	1314	1514	1714
Maple Drive, Petworth Drive	0918	1018	1118	1218	1318	1518	1718
BURGESS HILL, Church Road	0922	1022	1122	1222	1322	1522	1722
Burgess Hill Station	0925	1025	1125	1225	1325	1525	1725
Grand Avenue, Thatched Inn	0931	1031	1131	1231	1331	1531	1731
Hassocks, Post Office	0934	1034	1134	1234	1334	1534	1734
Hassocks, Stone Pound	0936	1036	1136	1236	1336	1536	1736
Hurstpierpoint Church	0942	1042	1142	1242	1342	1542	1742
HURSTPIERPOINT, Willow Way	0946	1046	1146	1246	1346	1546	1746

35C BURGESS HILL TOWN SERVICE (East) - Clockwise

Mondays to Saturdays *except Public Holidays*

	NS	S	NS	C	C	C	C	C	C	Sch	S&H		
Church Road Shops, Stop A	0720	0820	0830	0935	1035	1135	1235	1335	1435	1525	1535	1645	1745
West Park Estate Denham Road	0725	0825	0835	0940	1040	1140	1240	1340	1440	1530	1540	1650	1750
The Triangle	—	—	—	—	—	—	—	—	—	1535	—	—	—
Maple Drive Petworth Drive	0731	0831	0841	0946	1046	1146	1246	1346	1446	1551	1546	1656	1756
Worlds End Janes Lane	0734	0834	0845	0949	1049	1149	1249	1349	1449	1554	1549	1659	1759
St Andrews Road Northway	0737	0837	0848	0952	1052	1152	1252	1352	1452	1557	1552	1702	1802
Folders Lane Kings Way	0741	0841	0852	0956	1056	1156	1256	1356	1456	1601	1556	1706	1806
Burgess Hill Station ⇄	0744	0844	0858	0959	1059	1159	1259	1359	1459	1604	1559	1709	1809
Church Road Shops, Stop A	0745	0845	0900	1000	1100	1200	1300	1400	1500	1605	1600	1710	1810

35A BURGESS HILL TOWN SERVICE (East) - Anticlockwise

Mondays to Saturdays *except Public Holidays*

	NS	Sch	H	C	C	C	C	C	C	Sch	S&H			NS
Church Road Shops, Stop A	0655	0748	0800	0905	1005	1105	1205	1305	1405	1500	1505	1615	1715	1815
Burgess Hill Station ⇄	0658	0749	0801	0906	1006	1106	1206	1306	1406	1501	1506	1616	1716	1816
Folders Lane Kings Way	0659	0752	0804	0909	1009	1109	1209	1309	1409	1504	1509	1619	1719	1819
St Andrews Road Northway	0703	0756	0808	0913	1013	1113	1213	1313	1413	1508	1513	1623	1723	1823
Worlds End	0706	0759	0811	0916	1016	1116	1216	1316	1416	1511	1516	1626	1726	1826
Maple Drive Petworth Drive	0709	0802	0814	0919	1019	1119	1219	1319	1419	1514	1519	1629	1729	1829
The Triangle	—	0810	—	—	—	—	—	—	—	—	—	—	—	—
West Park Estate Denham Road	0713	0820	0820	0925	1025	1125	1225	1325	1425	1520	1525	1635	1735	1835
Church Road Shops, Stop A	0719	0825	0825	0930	1030	1130	1230	1330	1430	1525	1530	1640	1740	1840

S - Saturdays only **NS - Not Saturdays** **S&H - Saturdays and Schooldays only** **Sch - Schooldays only**
H - Mondays to Fridays during School Holidays only
C – These journeys continue across the town during the off-peak period, Mon - Fri only

COMPASS
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Website: www.compass-travel.co.uk

EFFECTIVE FROM 03.09.2018

167: "VILLAGE RIDER"
LEWES - PLUMPTON - DITCHLING - HASSOCKS - BURGESS HILL
Revised Times from 7th January 2019

Mondays to Fridays	**NW**	**MTh**	**MTh**	**Sch**	**H**	**Sch**
Lewes, Bus Station	0915	1100	1310	1450	1450	....
Lewes, High Street, Post Office	0917	1102	1312	1452	1452	....
Nevill Road, Nevill Crescent	0921	1106	1316	1456	1456	....
Offham, Blacksmith's Arms	0924	1109	1319	1459	1459	....
Cooksbridge, Rail Station	....	....	1321	....	....	....
Chailey School	....	....	1326	....	....	....
East Chiltington, Chapel Lane	....	....	1330	....	....	....
Plumpton, Half Moon	0929	1114	1334	1504**P**	1504**P**	....
Plumpton Green, Station	....	....	....	1508	1508	....
Plumpton Lane, The Plough	....	....	....	1510	1510	....
Middleton Manor	0933	1118	1337	....	....	....
Westmeston, Church	0935	1120	1339	....	....	....
Stoneywish Nature Reserve	0938	....	1342	....	....	....
Ditchling Common, Folders Lane East	0941	....	1345	....	....	....
Ditchling, South View	0942	....	1346	....	....	....
Ditchling, White Horse	0944	1124	1348	....	....	....
Wivelsfield Green, Coppards Close	....	....	....	1512	1512	....
Wivelsfield Primary School	....	....	....	....	....	1522
Wivelsfield Green, The Green	....	....	....	....	1513	1525
Wivelsfield, Ote Hall Chapel	....	....	....	....	1514	1526
Keymer, Library	0946	1126	1350	....	....	....
Hassocks, Rail Station	....	....	....	....	....	....
Hassocks, Grand Avenue	0948	1128	1352	....	....	....
Keymer, Thatched Inn	0950	1130	1354	....	....	....
Burgess Hill, St George's Retreat	....	....	....	....	1515	1527
Ditchling Common, Folders Lane	....	....	....	....	1517	....
Burgess Hill, Charlwood Gardens	....	....	....	....	....	1534
Burgess Hill, Oak Hall Park	0954	1134	....	....	....	....
Burgess Hill School for Girls	0955	1135	1400	....	1520	....
Burgess Hill, Church Road	0957	1137	1402	....	1522	1542

Codes for 167 & 168

A: Time at Hassocks Post Office (not Grand Avenue); operates via Friars Oak and Stone Pound Crossroads
B: Time opposite Ditchling, The Bull, not the White Horse
L: Operates via Offham Road; then after Bus Station continues to High Street and Nevill Road
P: Stops in Plumpton Lane - not outside the Half Moon
R: serves this point only on request by passengers on board the bus
T: Connects with the 0744 train to Lewes and 1631 arrival from Lewes. Buses will wait up to 5 mins for the afternoon arrival
MTh: Mondays and Thursdays only
TuF: Tuesdays and Fridays only
NW - Does not operate on Wednesdays
Sch - operates on school days only
H - operates during school holidays only

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167: "VILLAGE RIDER"
LEWES - PLUMPTON - DITCHLING - HASSOCKS - BURGESS HILL
Revised Times from 7th January 2019

Mondays to Fridays	**Sch**	**NW**	**MTh**	**MTh**	**NW**
Burgess Hill, Church Road	0820	....	1000	1145	1405
Burgess Hill School for Girls	....	....	1002	1147	1407
Burgess Hill, Oak Hall Park	....	....	....	1149	1409
Burgess Hill, Charlwood Gardens	0829	....	....	....	....
Burgess Hill, Tesco	....	....	....	....	....
Ditchling Common, Folders Lane	....	....	....	....	....
Keymer, Thatched Inn	....	....	1006	1153	1413
Hassocks, Grand Avenue	....	....	1008	1155	1415
Keymer, Library	....	....	1010	1157	1417
Ditchling, White Horse	....	....	1012	1159	1419
Ditchling, South View	....	....	1014	....	1421
Ditchling Common, Folders Lane East	....	....	1015	....	1422
Burgess Hill, St George's Retreat	0837	....	....	....	....
Stoneywish Nature Reserve	....	....	1018	....	....
Wivelsfield, Ote Hall Chapel	0838	....	....	....	....
Wivelsfield Green, The Green	0839	....	....	....	....
Wivelsfield Primary School	0845	0841	....	....	....
Westmeston, Church	....	....	1022	1203	....
Middleton Manor	....	....	1024	1205	....
Plumpton Lane, The Plough	....	0851	....	....	1426
Plumpton Green, Station	....	0854	....	....	1429
Plumpton, Half Moon	....	0857**P**	1027	1208	1432**P**
East Chiltington, Chapel Lane	....	....	1032	....	....
Chailey School	....	....	1036	....	....
Cooksbridge, Rail Station	....	....	1044	....	....
Offham, Blacksmith's Arms	....	0902	1047	1213	1437
Nevill Road, Nevill Crescent	....	**L**	1050	1216	1440
Lewes, High Street, Law Courts	....	**L**	1053	1219	1443
Lewes, Bus Station	....	0909	1055	1221	1445

Codes for 167 & 168

A: Time at Hassocks Post Office (not Grand Avenue); operates via Friars Oak and Stone Pound Crossroads
B: Time opposite Ditchling, The Bull, not the White Horse
L: Operates via Offham Road; then after Bus Station continues to High Street and Nevill Road
P: Stops in Plumpton Lane - not outside the Half Moon
R: serves this point only on request by passengers on board the bus
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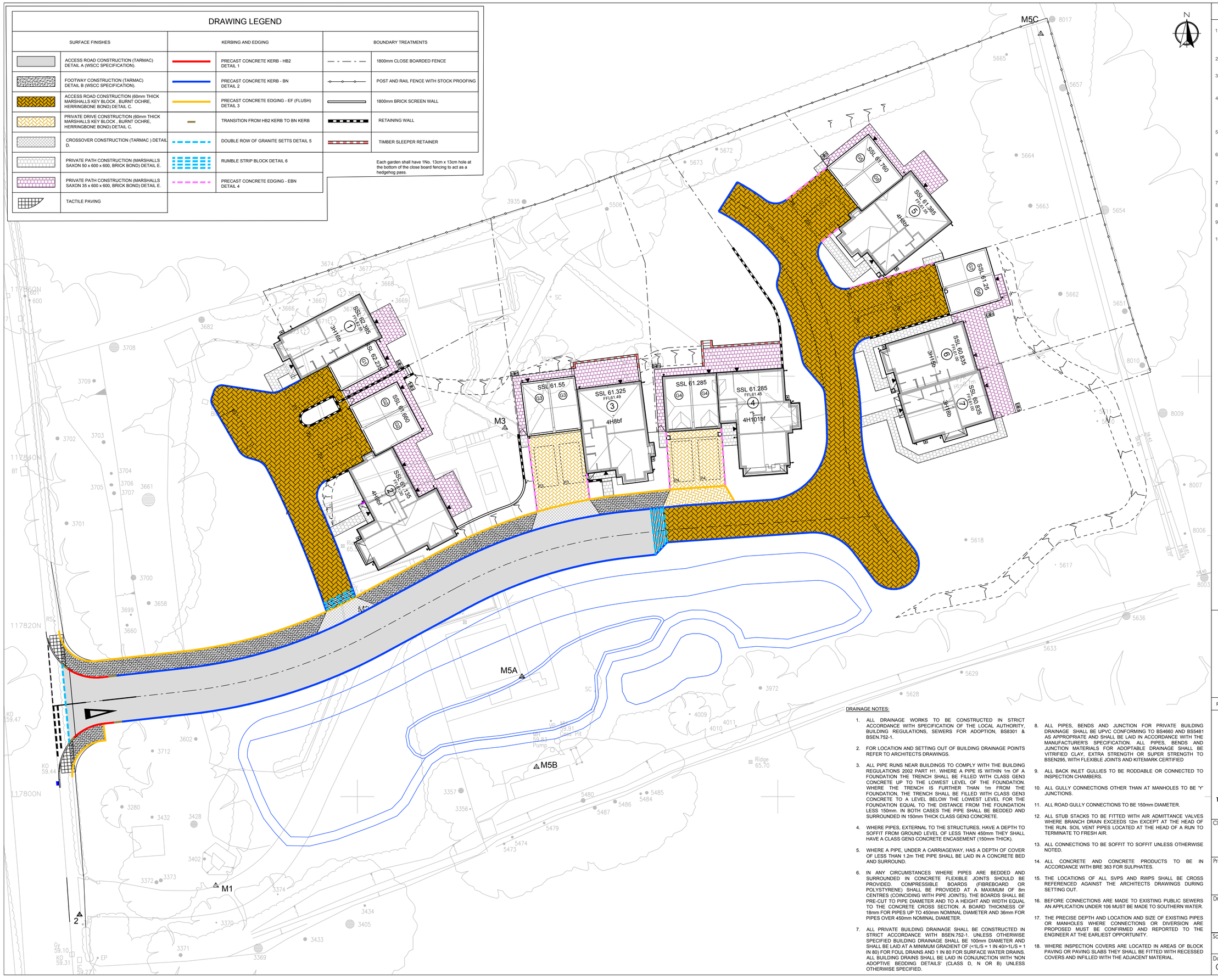
APPENDIX C

Greenacres Site Access Plans

DRAWING LEGEND

SURFACE FINISHES		KERBING AND EDGING		BOUNDARY TREATMENTS	
	ACCESS ROAD CONSTRUCTION (TARMAC) DETAIL A (WSCC SPECIFICATION).		PRECAST CONCRETE KERB - HB2 DETAIL 1		1800mm CLOSE BOARDED FENCE
	FOOTWAY CONSTRUCTION (TARMAC) DETAIL B (WSCC SPECIFICATION).		PRECAST CONCRETE KERB - BN DETAIL 2		POST AND RAIL FENCE WITH STOCK PROOFING
	ACCESS ROAD CONSTRUCTION (60mm THICK MARSHALLS KEY BLOCK , BURNT OCHRE, HERRINGBONE BOND) DETAIL C.		PRECAST CONCRETE EDGING - EF (FLUSH) DETAIL 3		1800mm BRICK SCREEN WALL
	PRIVATE DRIVE CONSTRUCTION (60mm THICK MARSHALLS KEY BLOCK , BURNT OCHRE, HERRINGBONE BOND) DETAIL C.		TRANSITION FROM HB2 KERB TO BN KERB		RETAINING WALL
	CROSSOVER CONSTRUCTION (TARMAC) DETAIL D.		DOUBLE ROW OF GRANITE SETTS DETAIL 5		TIMBER SLEEPER RETAINER
	PRIVATE PATH CONSTRUCTION (MARSHALLS SAXON 50 x 600 x 600, BRICK BOND) DETAIL E.		RUMBLE STRIP BLOCK DETAIL 6		Each garden shall have 1No. 13cm x 13cm hole at the bottom of the close board fencing to act as a hedgehog pass.
	PRIVATE PATH CONSTRUCTION (MARSHALLS SAXON 35 x 600 x 600, BRICK BOND) DETAIL E.		PRECAST CONCRETE EDGING - EBN DETAIL 4		
	TACTILE PAVING				



NOTES

A1

1. This drawing is to be read in conjunction with all other RGP drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
2. RGP accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. RGP logos and company information must be removed from copies if information is re-used.
7. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
8. The main contractor is responsible for dealing with all occurrences of ground water during the construction period.
9. The contractor must comply with all current legislation relating to health & safety.
10. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any RGP drawings, the manufacturers instructions must be used.

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

1. Uncharted buried services. Contractor to use CAT prior to excavating.
2. Working in live carriageway. Contractor to implement traffic management to ensure safety of the workforce and public.
3. Working in live sewers. Contractor to ensure operatives are familiar with the dangers of working in live sewers.
4. Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structures.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

DRAINAGE NOTES:

1. ALL DRAINAGE WORKS TO BE CONSTRUCTED IN STRICT ACCORDANCE WITH SPECIFICATION OF THE LOCAL AUTHORITY, BUILDING REGULATIONS, SEWERS FOR ADOPTION, BS8301 & BSEN.752-1.
2. FOR LOCATION AND SETTING OUT OF BUILDING DRAINAGE POINTS REFER TO ARCHITECTS DRAWINGS.
3. ALL PIPE RUNS NEAR BUILDINGS TO COMPLY WITH THE BUILDING REGULATIONS 2002 PART H1. WHERE A PIPE IS WITHIN 1m OF A FOUNDATION THE TRENCH SHALL BE FILLED WITH CLASS GEN3 CONCRETE UP TO THE LOWEST LEVEL OF THE FOUNDATION. WHERE THE TRENCH IS FURTHER THAN 1m FROM THE FOUNDATION, THE TRENCH SHALL BE FILLED WITH CLASS GEN3 CONCRETE TO A LEVEL BELOW THE LOWEST LEVEL FOR THE FOUNDATION EQUAL TO THE DISTANCE FROM THE FOUNDATION LESS 150mm. IN BOTH CASES THE PIPE SHALL BE BEDDED AND SURROUNDED IN 150mm THICK CLASS GEN3 CONCRETE.
4. WHERE PIPES, EXTERNAL TO THE STRUCTURES, HAVE A DEPTH TO SOFFIT FROM GROUND LEVEL OF LESS THAN 450mm THEY SHALL HAVE A CLASS GEN3 CONCRETE ENCASEMENT (150mm THICK).
5. WHERE A PIPE, UNDER A CARRIAGEWAY, HAS A DEPTH OF COVER OF LESS THAN 1.2m THE PIPE SHALL BE LAID IN A CONCRETE BED AND SURROUND.
6. IN ANY CIRCUMSTANCES WHERE PIPES ARE BEDDED AND SURROUNDED IN CONCRETE FLEXIBLE JOINTS SHOULD BE PROVIDED. COMPRESSIBLE BOARDS (FIBREBOARD OR POLYSTYRENE) SHALL BE PROVIDED AT A MAXIMUM OF 8m CENTRES (COINCIDING WITH PIPE JOINTS). THE BOARDS SHALL BE PRE-CUT TO PIPE DIAMETER AND TO A HEIGHT AND WIDTH EQUAL TO THE CONCRETE CROSS SECTION. A BOARD THICKNESS OF 18mm FOR PIPES UP TO 450mm NOMINAL DIAMETER AND 36mm FOR PIPES OVER 450mm NOMINAL DIAMETER.
7. ALL PRIVATE BUILDING DRAINAGE SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH BSEN.752-1. UNLESS OTHERWISE SPECIFIED BUILDING DRAINAGE SHALL BE 100mm DIAMETER AND SHALL BE LAID AT A MINIMUM GRADIENT OF (<1L/S = 1 IN 40/>1L/S = 1 IN 80) FOR FOUL DRAINS AND 1 IN 80 FOR SURFACE WATER DRAINS. ALL BUILDING DRAINS SHALL BE LAID IN CONJUNCTION WITH 'NON ADOPTIVE BEDDING DETAILS' (CLASS D, N OR B) UNLESS OTHERWISE SPECIFIED.
8. ALL PIPES, BENDS AND JUNCTION FOR PRIVATE BUILDING DRAINAGE SHALL BE UPVC CONFORMING TO BS4660 AND BS5481 AS APPROPRIATE AND SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. ALL PIPES, BENDS AND JUNCTION MATERIALS FOR ADOPTABLE DRAINAGE SHALL BE VITRIFIED CLAY, EXTRA STRENGTH OR SUPER STRENGTH TO BSEN295, WITH FLEXIBLE JOINTS AND KITEMARK CERTIFIED
9. ALL BACK INLET GULLIES TO BE RODDABLE OR CONNECTED TO INSPECTION CHAMBERS.
10. ALL GULLY CONNECTIONS OTHER THAN AT MANHOLES TO BE 'Y' JUNCTIONS.
11. ALL ROAD GULLY CONNECTIONS TO BE 150mm DIAMETER.
12. ALL STUB STACKS TO BE FITTED WITH AIR ADMITTANCE VALVES WHERE BRANCH DRAIN EXCEEDS 12m EXCEPT AT THE HEAD OF THE RUN. SOIL VENT PIPES LOCATED AT THE HEAD OF A RUN TO TERMINATE TO FRESH AIR.
13. ALL CONNECTIONS TO BE SOFFIT TO SOFFIT UNLESS OTHERWISE NOTED.
14. ALL CONCRETE AND CONCRETE PRODUCTS TO BE IN ACCORDANCE WITH BRE 363 FOR SULPHATES.
15. THE LOCATIONS OF ALL SVPS AND RWPS SHALL BE CROSS REFERENCED AGAINST THE ARCHITECTS DRAWINGS DURING SETTING OUT.
16. BEFORE CONNECTIONS ARE MADE TO EXISTING PUBLIC SEWERS AN APPLICATION UNDER 106 MUST BE MADE TO SOUTHERN WATER.
17. THE PRECISE DEPTH AND LOCATION AND SIZE OF EXISTING PIPES OR MANHOLES WHERE CONNECTIONS OR DIVERSION ARE PROPOSED MUST BE CONFIRMED AND REPORTED TO THE ENGINEER AT THE EARLIEST OPPORTUNITY.
18. WHERE INSPECTION COVERS ARE LOCATED IN AREAS OF BLOCK PAVING OR PAVING SLABS THEY SHALL BE FITTED WITH RECESSED COVERS AND INFILLED WITH THE ADJACENT MATERIAL.

CONSTRUCTION

Rev.	Date	Amendments	Drawn	Appr.
G	30/10/2017	Patio sizes revised and associated hatching updated	SPB	LDF
F	29/08/2017	Paving slab specifiction revised	SPB	LDF
E	25/08/2017	Site boundary and proposed fence line revised, private drive construction areas reverted back as per Rev C	SPB	LDF
D	21/08/2017	Private drive construction areas updated	SPB	LDF
C	20/05/2017	Path revised to plot 3 and 7, planted to front of plot 1 revised	RAA	LDF
B	28/03/2017	Plots 1- 4 patios revised, plot 2 path omitted.	RAA	LDF
A	21/02/2017	Revised to suit clients comments	RAA	LDF
-	19/01/2017	Original Issue	RAA	LDF

rgp Design

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Tel: 01243 210418 Fax: 01483 861682 **www.rgp.co.uk**

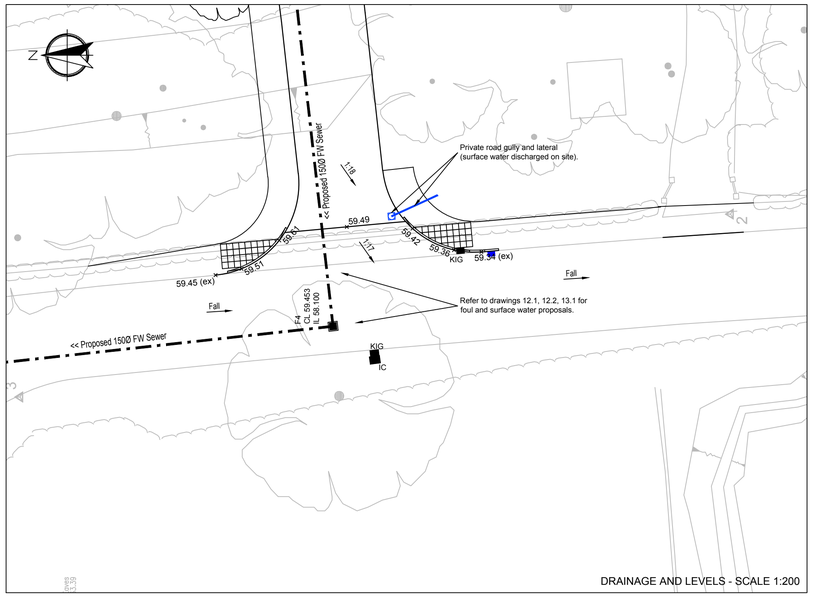
Client: Thakeham Homes Ltd

Project: Keymer Road, Burgess Hill

Drawing Title: External Works

Scale	Drawn By	Checked By	Approved By
1:200	SPB	LDF	LDF

Date	Drawing No.	Rev.
October 2017	2016/D1138/14.1	G

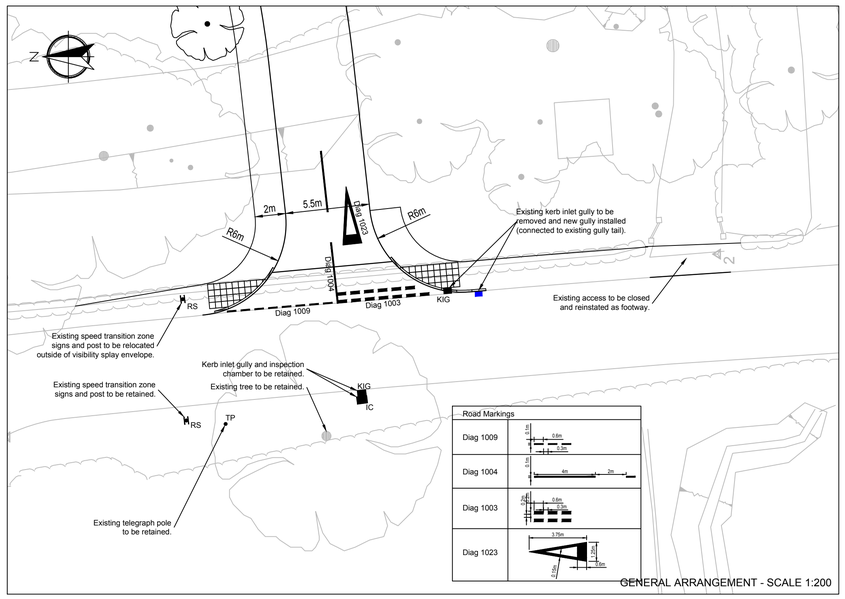


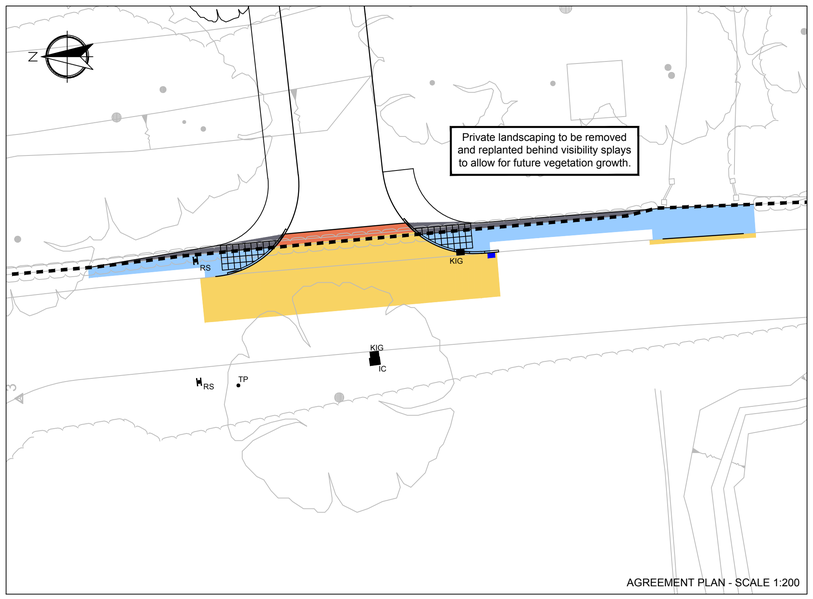
AGREEMENT PLAN NOTES:

1. No works shall commence within the existing public highway until the Agreement is signed.
2. No works shall commence within the existing public highway until the Traffic Management Scheme has been approved in writing.
3. Any soft spots within the proposed highway shall be dug out and the void backfilled in layers up to formation level with selected granular material as directed and to the satisfaction of the Highways Inspector.
4. All fill material up to foundation level of the proposed highways to be approved and compacted in layers as directed and to the satisfaction of the Highways Inspector
5. Any damage caused to the existing highway during the course of the works to be repaired as directed and to the satisfaction of the Highways Inspector and/or Area Engineer.
6. Continuity of access to occupied areas to be maintained to satisfaction of Highways Inspector, Area Office Engineer and/or Local Authority.
7. No private surface water runoff shall be permitted to discharge onto the highway, or vice versa. Cut-off drains, channels and/or gullies shall be used to intercept any conflicting water.
8. Any existing trees to be removed within / adjacent to the proposed highway shall have their roots grubbed up and loose soil removed and void backfilled in layers up to formation level with selected material as directed and to the satisfaction of the Highways Inspector.
9. Any new trees within 3.0m of the proposed highway shall have their roots restrained by root barriers as directed and to the satisfaction of the Highways Inspector.
10. Any abandoned/redundant pipes and chambers that fall within the proposed highway shall be grubbed up and the void backfilled in layers up to formation level of the carriageway with selected granular material or permanently filled with concrete (or similar filler).
11. All redundant connections in existing manholes/chambers shall be sealed and the benching made good as directed and to the satisfaction of the Highways Inspector and/or utility company involved.
12. Any existing live drains, sewers, ducts, cables, etc. that will pass under the proposed highway shall be surveyed, probed, traced, rodded, jetted, cctv'd, etc. to ascertain their structural condition and suitability to fall within the new highway. If deemed necessary, special protection and/or replacement may be required as directed and to the satisfaction of the Highways Inspector, Area Engineer and/or Utility Company involved.
13. Any existing live manholes, chambers, boxes, etc. that will be located within the proposed highway shall be surveyed to ascertain their structural condition and suitability to fall within the new highway. If deemed necessary, special protection and/or replacement may be required as directed and to the satisfaction of the Highways Inspector, Area Engineer and/or Utility Company involved.
14. Developer/Contractor to provide suitable and effective wheel washing facilities to prevent mud from being conveyed onto the public highway and to provide the means to clean the highway to the satisfaction of the Highways Inspector, Area Engineer and/or Local Authority.
15. No concrete to be poured or laid in temperatures below 2deg C on a falling max/min thermometer or before the temperature reaches 2deg C on a rising max/min thermometer (to be provided by the Contractor and displayed in a position agreed by the Highways Inspector).
16. All road signs and markings to comply with the Traffic Signs Manual.
17. All road markings to be thermoplastic.
18. Contractor to comply with Chapter 8 of the Traffic Signs Manual 2009.
19. Tactile paving to comply with the Guidance on the use of Tactile Paving Surfaces 1998. Tactile Pedestrian Crossings to have a 6mm (maximum) upstand (not flush). The actual layout of tactile paving to be agreed on site with the Highways Inspector prior to laying slabs.
20. Refer to WSCC 278/38 Highway Agreement Standard Details drawings 01-24 and revision thereof.
21. All adoptable highway works to be carried out in accordance with the DfT Specification of Highway Works or as amended by the West Sussex County Council S278/38 Standard Details - both available on the WSCC Website.
22. Highway Inspector to approve all kerb and/or edging line and level on site with the main contractor at a PRE-START MEETING prior to instalment. The Highway Inspector will direct the contractor accordingly to achieve a satisfactory finish which may deviate from the technically approved detailed drawings. The contractor will record all variances for the 'as-built' drawings issue'.

NOTES

1. This drawing is to be read in conjunction with all other RGP drawings, and with all relevant Architect's and Engineer's drawings and specification. Any discrepancies found are to be reported immediately to the Engineer.
2. RGP accepts no responsibility for inaccuracies in data provided by third parties such as topographic surveys or Ordnance Survey mapping.
3. Do not scale, work to figured dimensions only. All dimensions are in millimeters unless noted otherwise and all levels are in metres from the topographic survey datum.
4. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care whilst undertaking the works.
5. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
6. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. Figured dimensions must be used for setting out and detailing. RGP logos and company information must be removed from copies if information is re-used.
7. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
8. The main contractor is responsible for dealing with all occurrences of ground water during the construction period.
9. The contractor must comply with all current legislation relating to health & safety.
10. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any RGP drawings, the manufacturers instructions must be used.





-KEY-

- Existing Highway Boundary
- Site Boundary
- S278 Carriageway
- S278 Footway
- S38 Carriageway
- S38 Footway
- Full depth Footway Construction
- Full Depth Carriageway Construction
- Carriageway tie-in Option 1
- HB2 Kerb, 125mm upstand
- EF Edging, laid flush
- BN Kerb, 6mm upstand
- Double Row Granite Setts, 6mm upstand
- Dropper Kerb
- Tactile Paving
- Precast concrete Gully
- IC — Existing Inspection Chamber
- KIG — Existing Kerb Inlet Gully
- RS — Existing Road Sign
- TP — Existing Telegraph Pole

RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, note the following:

1. Uncharted buried services. Contractor to use CAT prior to excavating.
2. Working in live carriageway. Contractor to implement traffic management to ensure safety of the workforce and public.
3. Working in live sewers. Contractor to ensure operatives are familiar with the dangers of working in live sewers.
4. Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structures.

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement

LANDSCAPING & BOUNDARY TREATMENTS
NO TREES, PLANTING, FENCE OR WALL TO EXCEED 600mm IN HEIGHT WITHIN VISIBILITY & INTER-VISIBILITY AREAS.

STREET LIGHTING
NO WORKS REQUIRED.

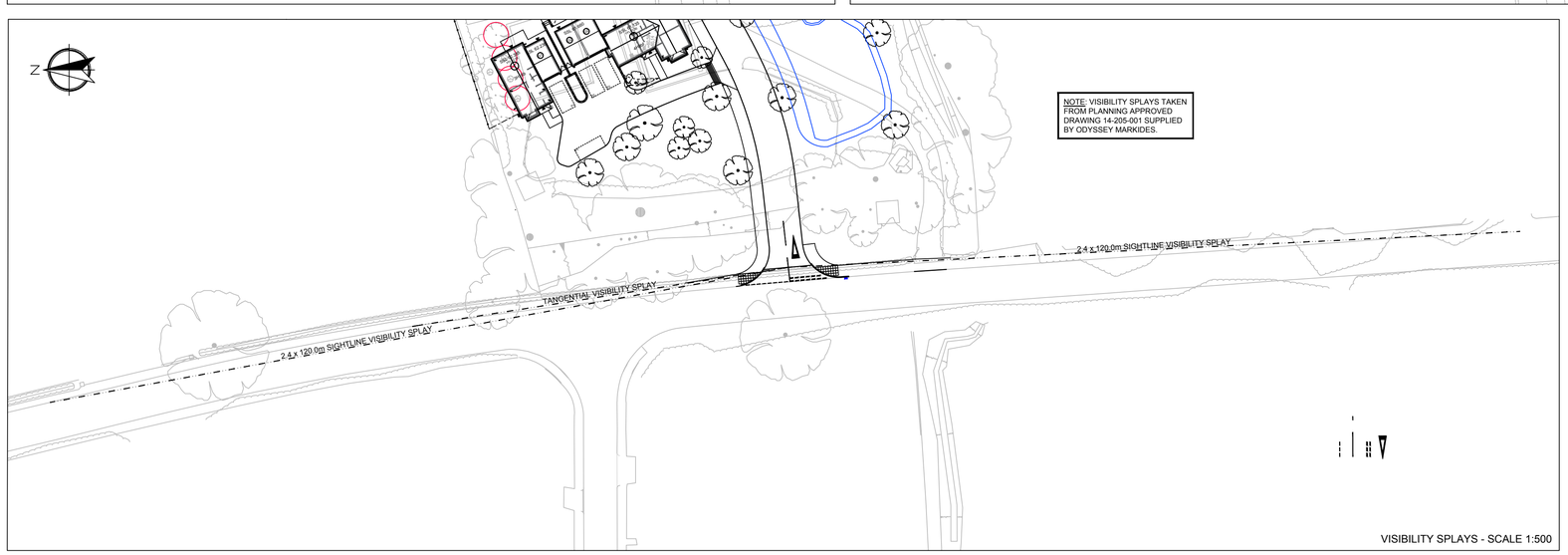
ROAD MARKINGS
STANDARD JUNCTION ROAD MARKINGS REQUIRED.

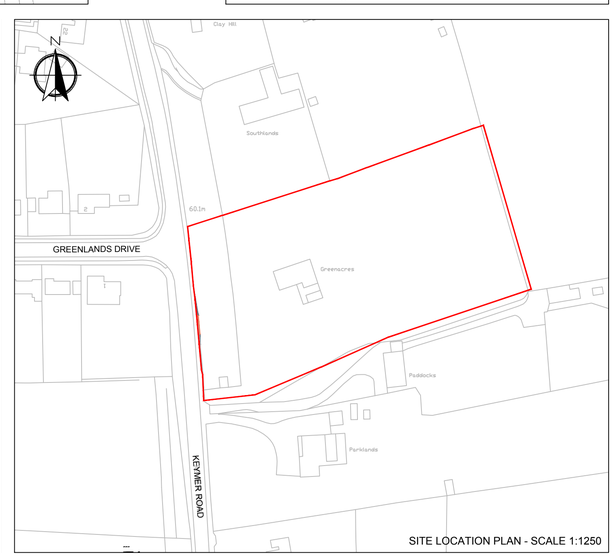
SIGNAGE
NO WORKS REQUIRED.

LIST OF WSCC S278/38 SUPPORTING DRAWINGS:

S278/38/01	Alternative Methods of Laying Kerbs
S278/38/02	Approved Kerb Type Selection Sheet 1
S278/38/03	Approved Kerb Type Selection Sheet 2
S278/38/04	Footway / Cycleway Type 1 & 2
S278/38/11	Gully A Precast Concrete
S278/38/18	Street Furniture - Tactile Crossings
S278/38/20	Carriageway - Tie-in Options
S278/38/21	Carriageway - Flexible Specification

PAVEMENT DESIGN CBR = 2.5%





APPROVED FOR CONSTRUCTION

Rev.	Date	Amendments	Drawn	Appr.
D	25/08/2017	Site boundary and proposed fence line revised	SPB	LDF
C	04/05/2017	Extent of footway works clarified, road marking dims added, road gully revised.	LDF RAA	LDF LDF
B	13/03/2017	Stage 2 Road Safety Audit comments	RAA	LDF
A	22/02/2017	Revised to suit WSCC comments	RAA	LDF
-	20/01/2017	Original Issue	RAA	LDF

rgp Design
Transport Planning and Infrastructure Design Consultants
Metro House, Northgate, Chichester, West Sussex, PO19 1BE
Tel: 01243 210418 Fax: 01483 861682 www.rgp.co.uk

Client: Thakeham Homes Ltd

Project: Keymer Road, Burgess Hill

Drawing Title: Section 278 Agreement Plan

Scale	Drawn By	Checked By	Approved By
As shown	SPB	LDF	LDF

Date	Drawing No.	Rev.
August 2017	2016/D1138/17.101	D

APPENDIX D

Stage 1 Road Safety Audit and Designer's Response

LAND EAST OF KEYMER ROAD AND SOUTH OF FOLDERS LANE, BURGESS HILL

DESIGNER'S RESPONSE TO STAGE 1 ROAD SAFETY AUDIT

ON BEHALF OF THAKEHAM HOMES AND PERSIMMON HOMES

Prepared by
Odyssey
Tuscany House
White Hart Lane
Basingstoke
Hampshire
RG21 4AF

Tel: 01256 331144

November 2020

SUMMARY SHEET

Title:	Designer's Response to Road Safety Audit Stage 1
Project:	Land East of Keymer Road and South of Folders Lane, Burgess Hill
Report No.:	14-205-16
Date:	November 2020

DOCUMENT CONTROL SHEET

Rev	Issue Purpose	Author	Checked	Reviewed	Approved	Date
-	Issue	BM	ESH	BM	BM	29/10/2020
A	Issue 2	BM	ESH	BM	BM	10/11/2020

DESIGNER'S STATEMENT

Odyssey have been appointed by Thakeham Homes and Persimmon Homes to provide highways and transport advice for a proposed residential development of up to 300 dwellings on Land East of Keymer Road and South of Folders Lane, Burgess Hill. As part of the application a Stage 1 Road Safety Audit (RSA1) has been undertaken by M & S Traffic Ltd for the proposed site access; this is contained in **Appendix 1**. The auditors were provided with the RSA1, the Section 278 Agreement Plan and swept path analysis (Drawing 14-205/002E) for the seven dwelling Greenacres scheme, personal injury accident data, the proposed site access General Arrangement (Drawing 14-205/012) and the proposed stie access junction capacity analysis.

I have considered the issues and problems raised in the Safety Audit and have appended my comments, which set out:

- the changes to the design which I propose to make; or
- the reasons why I do not propose to make any changes.

Signed: B. Linwhead.

Date: 10/11/2020

Audit Item No.	Audit Team Observation	Audit Team Recommendation	Odyssey Designer's Response	WSCC Response	Agreed RSA Action
3.1.1	General No comment.	N/A	N/A		
3.2.1	Local Alignment No comment.	N/A	N/A		
3.3.1	South of the access The southern visibility splay passes over areas of existing vegetation and trees, this splay needs to be cleared to provide the required visibility distances. In addition, if this splay is not maintained then visibility could be impaired, which could lead to side impact or rear end shunts collisions.	It is recommended that the vegetation and trees should be cut back or removed and that a regular maintenance programme to maintain the hedge line and verge should be employed.	The Greenacres site management company would be required to clear any vegetation within the visibility splays on private land, with West Sussex County Council (WSCC) being required to clear the vegetation on adopted highway land. If required, an area 0.5m behind the visibility splay, within the Greenacres development land, could be transferred to WSCC as adopted highway such that WSCC would be		

Audit Item No.	Audit Team Observation	Audit Team Recommendation	Odyssey Designer's Response	WSCC Response	Agreed RSA Action
			responsible for fully maintaining the vegetation to ensure it does not obstruct the visibility splay.		
3.4.1	Non-Motorised User Provision No comment.	N/A	N/A		
3.5.1	Terminal speed signage, north of the access An existing national speed limit covers the proposed junction, where the approaches are long and straight. Additionally, the development is at the fringes of Burgess Hill and effectively extends the urban area. As such, with a national speed limit this may give rise to vehicles approaching the junction at inappropriate speeds,	It is recommended that the 30 mph speed limit should be relocated south of the access.	The visibility splays shown, and approved, at the site access were set in accordance with the recorded 85th percentile vehicle speeds. New vehicle speed surveys would be undertaken before the submission of a future planning application and junction visibility splays determined and provided accordingly.		

Audit Item No.	Audit Team Observation	Audit Team Recommendation	Odyssey Designer's Response	WSCC Response	Agreed RSA Action
	which could lead to rear end shunt or side impact type collisions				

APPENDIX 1

Stage 1 Road Safety Audit

M & S Traffic

Road Safety Audit Stage 1

Keymer Road

Burgess Hill

West Sussex

Date: 27th October 2020

Report produced for: Odyssey

Report produced by: M & S Traffic

DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from Odyssey. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Project Title Keymer Road, Burgess Hill, West Sussex

Report Title Road Safety Audit Stage 1.

Revision

Status Final

Document Ref ODY/14-205/1/MM	Prepared by: (Name)	Checked by: (Name)	Approved by (Signature)	Date Approved
Revision	Martin Morris	Bryan Shawyer		27thOctober 2020
Designers Response				
Authority Response				

Distribution

Organisation	Contact	Copies
Odyssey	Emily Scott-Holt	-

CONTENTS

1 INTRODUCTION

1.1 This report describes a Stage 1 Road Safety Audit carried out on a Section 278 works associated with a proposed development off Keymer Road, Burgess Hill, West Sussex, where a priority junction with Keymer Road has been constructed.

The Audit was requested by the design organisation, Odyssey, Tuscany House, White Hart Lane, Basingstoke, RG21 4AF, on behalf of West Sussex County Council as the Highway Authority.

1.2 The Audit Team membership was as follows:

Martin Morris, PGD, MCIHT, MSoRSA – Audit Team Member
Highways England Approved RSA Certificate of Competency

Bryan Shawyer B.Eng. (Hons), MSc, MCIHT, MSoRSA – Audit Team Leader
Highways England Approved RSA Certificate of Competency.

1.3 The audit was undertaken following the principles of GG119, The Design Manual for Roads and Bridges. The documents available at the time the report was compiled are detailed in Appendix A.

The documents available at the time the report was compiled are detailed in Appendix A.

1.4 The Audit took place at the Gillingham offices of M&S Traffic in October 2020 and comprised an examination of the documents provided as listed in Appendix A, plus a joint visit to the site of the proposed scheme during the afternoon of the 20th October 2020 between 17:00 and 17.30. Weather conditions at the time were fine and the road surface was dry. Traffic flows were low and free flow speeds were low. There were low level and pedestrian and cyclist flows observed during the site visit. Note that the site visit was undertaken during the Covid 19 restriction period.

1.5 The report has been compiled, only with regards to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any “Technical Check” function on these proposals. It is assumed that the Project Sponsor is satisfied that such a “Technical Check” has been successfully completed prior to requesting this safety audit.

1.6 The auditors have not been informed of any Departures from Standards in this scheme construction.

1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief in Appendix B.

2 SAFETY ISSUES RAISED AT PREVIOUS AUDITS

2.1 The scheme was subject to a Stage 1 Road Safety Audit in September 2015 by M&S Traffic, where items 3.3.1 and 3.5.1 remain a cause for concern, these items are referred to again in items 3.3.1 and 3.5.1 of this report.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 No comment.

3.2 Local Alignment

3.2.1 No comment.

3.3 Junctions

3.3.1 **PROBLEM**

Location: South of the access.

Summary: Lack of visibility could lead to side impact or rear end shunts collisions.

The southern visibility splay passes over areas of existing vegetation and trees, this splay needs to be cleared to provide the required visibility distances, see figure 1 below. In addition, if this splay is not maintained then visibility could be impaired, which could lead to side impact or rear end shunts collisions.

Figure 1: Restricted visibility splay.

RECOMMENDATION

It is recommended that the vegetation and trees should be cut back or removed and that a regular maintenance programme to maintain the hedge line and verge should be employed.

3.4 Non-Motorised User Provision

3.4.1 No comment.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 **PROBLEM**

Location: Terminal speed signage, north of the access.

Summary: National speed limit on Keymer Road could lead to rear end shunt or side impact type collisions.

An existing national speed limit covers the proposed junction, where the approaches are long and straight. Additionally, the development is at the fringes of Burgess Hill and effectively extends the urban area. As such, with a national speed limit this may give rise to vehicles approaching the junction at inappropriate speeds, which could lead to rear end shunt or side impact type collisions .

Figure 2: Speed limit change on Keymer Road.

RECOMMENDATION

It is recommended that the 30 mph speed limit should be relocated south of the access.

4 ISSUES IDENTIFIED DURING THE STAGE 1 SAFETY AUDIT OUTSIDE THE TERMS OF REFERENCE

4.1 Safety issues identified during the audit and site inspection that are outside the Terms of Reference, but which the Audit Team wishes to draw to the attention of the Client Organisation, are set out in this section. It is to be understood that, in raising these issues, the Audit Team in no way warrant that a full review of the highway environment has been undertaken beyond that necessary to undertake the Audit as commissioned.

4.2 The Audit Team has no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

Martin Morris
PGD, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency
M & S Traffic Ltd
Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX

Signed:

Date: 27/10/2020

Audit Team Member

Bryan Shawyer
BEng (Hons), MSc, MCIHT, MSoRSA
Highways England Approved RSA Certificate of Competency
M & S Traffic Ltd
Aeolus House
32 Hamelin Road
Gillingham
Kent ME7 3EX

Signed:

Date: 27/10/2020

APPENDIX A

List of drawings and documentation submitted for auditing:

Drawing Number	**Title**
14-205-002E	Proposed site layout - Refuse Analysis
14-205-012	Potential Keymer Road Site Access
2016-D1138-17.101D	S278 Agreement Plan
4007_104_B_	Concept Masterplan

Supporting documentation:

- Draft-submission-site-allocations-dpd-regulation-19_SA13 Only Extract
- Junctions 9 Picardy Report October 2020
- Collision report 01/04/2010 – 31/03/2015
- RSA 1 M&S Traffic September 2015

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).

INSET A: PROPOSED KEYMER ROAD SITE ACCESS ROAD
SCALE 1:1000

N

3.5.1

EXISTING BUS STOPS

30

EXISTING CHANGE IN SPEED LIMIT

3.3.1

POTENTIAL 5.5m WIDE ACCESS ROAD WITH 2m WIDE FOOTWAYS

2m

5.5m

KEYMER ROAD

60.1m

Southlands

Paddocks Cottage

Paddocks

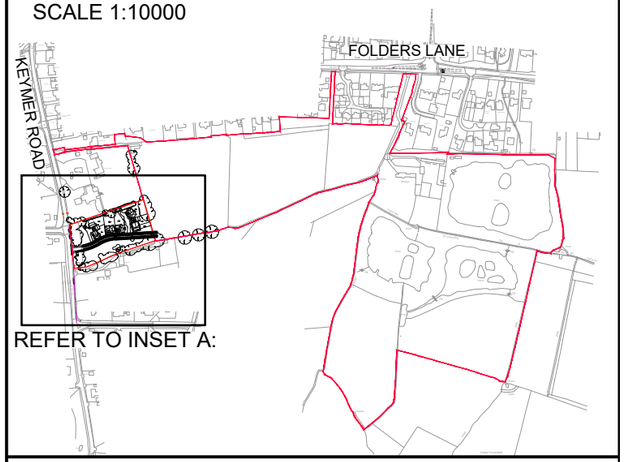
Hurdles

LB

BROADLANDS

Track

OVERALL SITE PLAN
SCALE 1:10000



REFER TO INSET A:

KEY

2.4 x 120m VISIBILITY SPLAY (upto 44mph DMRB)

INDICATIVE SITE BOUNDARY

ODYSSEY
Tuscany House
White Hart Lane
Basingstoke
Hampshire RG21 4AF
Telephone: 01256 331144
Fax: 01256 331134
E: enquiries@odysseyconsult.co.uk
W: www.odysseyconsult.co.uk

Job Title: KEYMER ROAD, BURGESS HILL

Drawing Title: PROPOSED KEYMER ROAD SITE ACCESS

Client: THAKEHAM HOMES

Scale	Date	Designed
AS SHOWN @A3	JULY 20	MS
Drawn	Checked	Approved
MS	BM	BM
Job No	Drawing No	Rev
14-205	14-205/012	-

\\odyssey04\data\14-205 - Land at Keymer Road, Burgess Hill\Tech\Acad\Drawings\14-205-012 Proposed Keymer Road Site Access.dwg

APPENDIX E

Public Transport Correspondence

From:	Andy Warton
To:	Emily Scott-Holt; Stephen Gee
Cc:	Ben Muirhead
Subject:	RE: Burgess Hill - Potential Bus Re-Routing
Date:	20 October 2020 09:13:22
Attachments:	image001.png image002.jpg image003.png

Hi Emily

I have had a reply from Compass Travel and this is below:

This development is for up to 300 homes and is off Keymer Road to the south of Burgess Hill.

We do not know what types of homes are intended to be built, and therefore how likely residents are to be bus users. We also do not know whether there would be any parking restraints, such as limiting to one car per dwelling..

From the Mid Sussex District Council Plan, the extent of the site seems to be about 500m from Keymer Road, so it is generally not impossible to walk from the far extent of the site to the main road.

It is suggested that there could be two access roads, one just south and opposite of Greenlands Drive and the other slightly further south at Broadlands. However, due to sight lines, buses would not be able to exit from Broadlands onto the Keymer Road. This would result in any southbound buses penetrating the site doing a 360 degree loop in the development.

In bus terms, 300 homes is not substantial and is unlikely to be able to sustain additional resources, unless a case can be made for something combining this with other sites, such as Clayton Mills, just north of Hassocks and the Kingsway site. The 33 does not currently have enough slack time to loop into this site.

I would therefore suggest that, like the Clayton Mills development, funding is used to improve the bus stop environment, perhaps relocating the existing stops at Greenlands Drive to the south of the junction and adding shelters. The current stop is an extremely faded flag attached to a telegraph pole! I do note that the derestricted speed limit comes in just south of the junction, so I presume this will need to be reviewed if the development goes ahead.

It would also be useful for some funding to offer discounts for residents to try the 33 service as they occupy new homes.

As it appears that diverting the 33 is not practical, the only way to provide a service into the site would be to employ an extra vehicle. The cost of a service using a single vehicle running 0700-1900 on Mondays to Saturdays is in excess of £120,000 per annum, minus any fares collected. Any frequency increase would also need similar financial support and this is unlikely to be covered by additional patronage from this development alone.

I should point out that bus service patronage is currently around 50-60% of pre Covid levels, it is not known if this will ever recover.

Andy

From:	Andy Warton
To:	Emily Scott-Holt; Stephen Gee
Cc:	Ben Muirhead
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I should point out that bus service patronage is currently around 50-60% of pre Covid levels, it is not known if this will ever recover.

Andy

From: Emily Scott-Holt [mailto:escott-holt@odysseyconsult.co.uk]
Sent: 19 October 2020 15:28
To: Stephen Gee
Cc: Andy Warton; Ben Muirhead
Subject: FW: Burgess Hill - Potential Bus Re-Routing

Hello Stephen,

I hope you had a pleasant weekend.

Just to make you aware we are liaising with, and hoping to get feedback shortly from, Andy Warton with regards the potential for re-routing a bus service into the site and potentially increasing the frequency of bus services in proximity to the site (site reference SA13, Land East of Keymer Road and South of Folders Lane, Burgess Hill).

Kind regards,

Emily Scott-Holt | Principal Transport Planner

MCIHT

Tuscany House | White Hart Lane | Basingstoke | RG21 4AF

T: 01256 331144
E: escott-holt@odysseyconsult.co.uk W: www.odysseyconsult.co.uk

---

From: Emily Scott-Holt <escott-holt@odysseyconsult.co.uk>
Sent: 19 October 2020 15:10
To: Andy Warton <andy.warton@westsussex.gov.uk>
Cc: Ben Muirhead <bmuirhead@odysseyconsult.co.uk>
Subject: RE: Burgess Hill - Potential Bus Re-Routing

Hello Andy

I hope that you are well.

Following Chris Chatfield's email on the 7th October (see email chain below), are you able to provide any comment pertaining to the routing service 33 (or any other local bus service) through the discussed site, or increasing the frequency of local bus services?

Kind regards,

Emily Scott-Holt | Principal Transport Planner

MCIHT

Tuscany House | White Hart Lane | Basingstoke | RG21 4AF

T: 01256 331144
E: escott-holt@odysseyconsult.co.uk W: www.odysseyconsult.co.uk

---

From: Emily Scott-Holt
Sent: 07 October 2020 12:30
To: Chris Chatfield <CChatfield@compass-travel.co.uk>
Cc: Kevin Hawkins <kevin@martlet.uk.com>; Andy Warton <andy.warton@westsussex.gov.uk>; Ben Muirhead <bmuirhead@odysseyconsult.co.uk>
Subject: RE: Burgess Hill - Potential Bus Re-Routing

Hello Chris,

Thank you kindly for your prompt reply.

We look forward to hearing from Kevin and Andy for their initial thoughts / comments.

Kind regards,

Emily Scott-Holt | Principal Transport Planner

MCIHT

Tuscany House | White Hart Lane | Basingstoke | RG21 4AF

T: 01256 331144
E: escott-holt@odysseyconsult.co.uk W: www.odysseyconsult.co.uk

---

From: Chris Chatfield <CChatfield@compass-travel.co.uk>
Sent: 07 October 2020 11:08
To: Emily Scott-Holt <escott-holt@odysseyconsult.co.uk>
Cc: Kevin Hawkins <kevin@martlet.uk.com>; Andy Warton <andy.warton@westsussex.gov.uk>
Subject: FW: Burgess Hill - Potential Bus Re-Routing

Hi Emily

Thank you for contacting us about this. We are always interested in opportunities to serve new developments with our bus services and in being involved at an early stage so that the design of roads is suitable for bus use.

We do in fact normally use MCL transport consultants for any discussions on new developments and so I'm forwarding this to Kevin Hawkins to respond to your enquiry and he can then work with you to hopefully take this forward.

Most of our services in the area are operated under contact a local council – with the main 33 service being under contract to WSCC. I'm therefore also copying this to WSCC since they would also want to be involved in any future discussions regarding the 33 bus route.

Regards
Chris

Chris Chatfield

Managing Director

Faraday Close | Durrington | Worthing | West Sussex | BN13 3RB
Tel: 01903 690025 | www.compass-travel.co.uk

Compass Travel (Sussex) Ltd
Registered in England No 4096610

From: Emily Scott-Holt <escott-holt@odysseyconsult.co.uk>
Sent: 07 October 2020 10:42
To: Office <Office@compass-travel.co.uk>
Cc: Ben Muirhead <bmuirhead@odysseyconsult.co.uk>
Subject: Burgess Hill - Potential Bus Re-Routing

Good Morning,

We are emailing to ascertain whether Compass Travel would consider re-routing one (or more) of their bus services to serve a proposed development of up to 300 dwellings in Burgess Hill. Compass Travel bus services 33, 167, and 168 currently operate in the vicinity of the site.

The site in question is presently being reviewed for allocation into the Local Plan – site details are attached.

The site would be accessed from a priority junction just to the south Keymer Road's junction with Greenlands Drive, and / or the junction of Broadlands and Keymer Road, as indicated on the below extract. The internal layout of the site has not yet been determined, however if a bus was to route within the site this would be appropriately designed for and would either make us of both the accesses indicated below, or a loop would be provided within the site with access and egress served from the priority junction to the south of Greenlands Drive. The bus would, however, not be able to exit via Broadlands due to visibility constraints.

We note that to the south of the site, the permitted development referred to as Clayton Mills, which will see the provision of 500 dwellings accessed from Ockley Lane, does not include the re-routing of a bus service internal to the site. Instead improvements to local bus stops has been secured.

Please could it also be detailed if it would be feasible to increase the frequency of the bus services in proximity to the site, either with or without re-routing into the site. If it is feasible to increase the service frequency of one or more bus routes could it be detailed what Compass Travel would need enable this?

We would appreciate any thoughts or comments you have at this early stage.

If you have any questions or queries please do not hesitate to get in contact.

Kind regards,

Emily Scott-Holt | Principal Transport Planner

MCIHT

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County Council takes steps to ensure emails and attachments are virus-free but you should carry out your own checks before opening any attachment.

APPENDIX F

Home Hubs

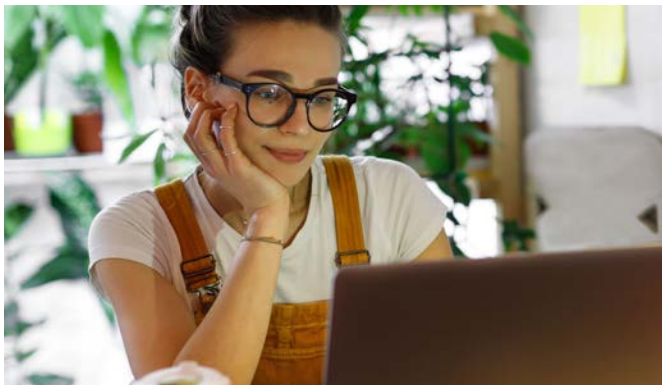
HOME WORKING
JUST GOT SMARTER

INTRODUCING THE INNOVATIVE

HOME HUB

THAKEHAM

WELCOME TO YOUR 60 SECOND COMMUTE



Whether you're looking to work from home full-time or for a space perfectly designed for new and more flexible work patterns, our Home Hub elevates the home-office to a new level. Self-contained and fully insulated, it's available in two sizes and features a multi-point locking system. What's more, it's installed in your garden and connected to mains power for when you move in.

Beautifully planned, fully fitted and available in two sizes, your Home Hub is designed to work around you.

HOME HUB 1

Dimensions

External: 4975mm x 3015mm (16’ 4” x 9’ 11”)

Internal: 4597mm x 2401mm (15’ 1” x 7’ 10”)

Overall height: 2500mm (8’ 2”)

Internal height: 2090mm max. (6’ 10” max)

A HUB TO SUIT EVERY HOME

Stylish and comfortable, your Home Hub takes working from home into a new era.

All information is correct at time of going to print. Metric to imperial conversions are approximate. CGIs are indicative only. Please talk to a Thakeham sales consultant for more information.

HOME HUB 2

Dimensions

External: 3513mm x 2514mm (11’ 6” x 8’3”)

Internal: 3135mm x 1915mm (10’ 3” x 6’ 3”)

Overall height: 2500mm (8’ 2”)

Internal height: 2090mm max. (6’ 10” max)

SPECIFICATION

• Western Red Cedar vertical boarded finish.

Certified to PEFC and FSC and in line with Thakeham policy, sourced responsibly from sustainable sources

• Brise soleil sun shading, also in Red Cedar

• Security: Multi point locking system to doors

• Internal floor finishes: Quick Step Vinyl wood flooring

• Wall finish: Ash white

• Ceiling finish: White

• Doors and windows: PVC-U double glazed, anthracite grey

• Insulated floor, walls and roof construction

• Heating: White ceiling mounted infrared panel heater

•Internal and external recessed downlighters

• Double power sockets (some with integrated USB sockets)

• BT and data sockets

• 2 year warranty

FOR FURTHER INFORMATION CONTACT

01293 225 614

www.thakeham.com

THAKEHAM

APPENDIX G

Clayton Mills Transport Assessment Extracts

APPENDIX H

Land to the South Folders Lane Transport Assessment Extracts

Jones Homes (Southern) Ltd

Land to the South of Folders Lane, Burgess Hill, West Sussex

Transport Assessment

December 2014

100 St John Street, London, EC1M 4EH

Tel: +44 (0)20 7580 8844

Email: info@wyg.com

7 Traffic Impact Assessment

Introduction

7.1 The section details the assessment of the impact that the proposed development, of up to 75 dwellings, will have on the local highway network.

7.2 Junctions requiring capacity assessments have been established based on *Guidance on Transport Assessment* 'Indicative threshold for transport assessments' criteria and have been subsequently discussed and agreed in a scoping response by WSCC Highways. The junctions assessed in this traffic impact assessment include:

- Keymer Road / Folders Lane;
- Folders Lane / Kings Way; and
- Folders Lane / Site access junction.

7.3 The assessment has been undertaken for individual junctions using the network flows detailed in Section 6. The future year assessments take into account the off-Site junction improvements agreed by the Local Highway Authority as part of the committed Keymer Tiles and Kings Way developments.

Assessment Methodology

7.4 TRL modelling software PICADY 5 and ARCADY 6 have been used to model the operations of the proposed Site access junction on Folders Lane and the existing layouts of the Keymer Road / Folders Lane and Kings Way / Folders mini-roundabout junctions respectively.

7.5 In these models the time periods assessed are divided into a number of 15-minute time segments in order to simulate the likely arrival pattern of traffic more effectively. The models return results in RFC (Ratio of Flow to Capacity) and mean maximum queue (Q) in each time segment, measured in number of vehicles.

7.6 RFC values between 0.00 and 0.85 indicate good operating conditions, values between 0.85 and 1.00 represent variable operation (i.e. queues building at the junction resulting in increased vehicle delay moving through the junction). RFC values in excess of 1.00 represent overloaded conditions.

7.7 The results of the LinSig assessment for the committed Folders Lane / Kings Way signalised junction are presented as Degree of Saturation (DOS %), Practical Reserve Capacity (PRC) and the Mean Max Queue (MMQ). For the purpose of interpreting the results of the LinSig analysis, it is

assumed that a DoS of more than 90% makes the junction susceptible to queuing and delay. The PRC value in each scenario measures how much additional traffic could pass through the junction whilst maintaining DoS of 90% on all links.

7.8 Operational assessments have been modelled for the following scenarios, with flow diagrams for these scenarios provided at **Appendix J**:

- 2014 AM and PM base (**Diagrams 4a** and **4b** respectively);
- 2019 AM and PM base + committed (**Diagrams 5a** and **5b** respectively); and
- 2019 AM and PM base + committed, plus development traffic (**Diagrams 6a** and **6b** respectively).

Keymer Road / Folders Lane Mini-roundabout

7.9 The existing operation of this mini-roundabout junction has been modelled in ARCADY 7 using the 2014 surveyed traffic flows. A summary of the ARCADY outputs for the AM and PM Peak hours is provided in **Table 7.1**, with full modelling outputs supplied at **Appendix K**.

Table 7.1: Keymer Road / Folders Lane - Existing Mini-roundabout Layout. Year 2014 ARCADY Results

Arm	Year 2014			
	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Keymer Road (N)	0.64	2	0.87	6
Folders Lane	0.82	4	0.71	2
Keymer Road (S)	0.78	3	0.56	1

Note: Queue in PCUs (Passenger Car Units)
Source: ARCADY 7

7.10 The results of this ARCADY assessment demonstrate that this junction is already operating close to its theoretical capacity on the Keymer Road (North) approach in the PM Peak with an RFC of 0.87 recorded and a queue of six PCUs.

7.11 Improvements to this junction have been secured as part of the committed developments in the area and include enlargement of the central island, provision of road markings and extension to the 30mph speed limit on Folders Lane approach to this junction. Pedestrian crossing facilities have been provided on Folders Lane. Peter Brett Associates' Drawing Number 13696-001-007C is attached at **Appendix L** and illustrates the nature of these junction improvements and ARCADY

results based on this design for Year 2019 scenarios. **Table 7.2** is a summary of the results of this assessment for the AM and PM peak hours.

Table 7.2: Keymer Road / Folders Lane – Mini-roundabout Layout Improvements. Year 2019 Scenarios ARCADY Results

Arm	Year 2019 Base + Committed				Year 2019 Base + Committed + Dev.			
	AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
Keymer Road (N)	0.67	2	0.95	12	0.68	2	0.96	14
Folders Lane	0.74	3	0.61	2	0.75	3	0.61	2
Keymer Road (S)	0.74	3	0.53	1	0.75	3	0.54	1

Note: Queue in PCUs
Source: ARCADY 7

7.12 The results show that with the proposed junction improvements in place, the impact of the proposed development traffic would be negligible, compared to the 2019 base plus committed development flows. Development traffic is shown to only increase the RFC on approach to the Keymer Road (North) arm from 0.95 to 0.96 and increase the queue by two PCUs.

Folders Lane / Kings Way Junction

7.13 The existing operation of this mini-roundabout junction has been modelled in ARCADY 7 using the 2014 surveyed traffic flows. A summary of the ARCADY outputs for the AM and PM Peak hours is provided in **Table 7.3** with full modelling ouputs provided at **Appendix M**.

Table 7.3: Folders Lane / Kings Way – Existing Mini-roundabout Layout. Year 2014 ARCADY Results.

Arm	Year 2014			
	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Kings Way	0.57	1	0.33	1
Folders Lane (E)	0.64	2	0.56	1
Folders Lane (W)	0.59	1	0.83	4

Source: ARCADY 7

7.14 The results demonstrate that the junction is currently operating within capacity on approach to all arms. The Folders Lane (West) approach arm to the mini-roundabout is showing signs of nearing capacity in the PM Peak with an RFC of 0.83 and queue of four PCUs.

7.15 During scoping discussion with WSCC, it was agreed that future year assessments of the operation of this junction should take into account committed improvements to the junction identified as being required by Peter Brett Associates (PBA) in the Keymer Tile development TA and more recently by WSP in their TA to support the development at Kings Way.

7.16 Committed improvements at the junction include replacing the existing mini-roundabout with a signal control junction, characteristics at the proposed junction are:

- Ghost island right tine into The Warren;
- Left and right turning lanes on the Kings Way arm;
- Ahead and right turning lanes on the eastern Folders Way arm; and
- Ahead lane and left filter lane on western Folders Lane arm.

7.17 The committed signalised junction design is shown on WSP drawing 2324/SK/010, a copy of which is provided at **Appendix N**. The operation of this proposed junction arrangement has been modelled in LinSig for the 2019 future year scenario with and without development traffic. Full outputs of the LinSig report are also provided at **Appendix N,** with a summary of the results provided in **Table 7.4**.

Table 7.4: Folders Lane / Kings Way - Signalised Layout. 2019 Scenarios LinSig Results

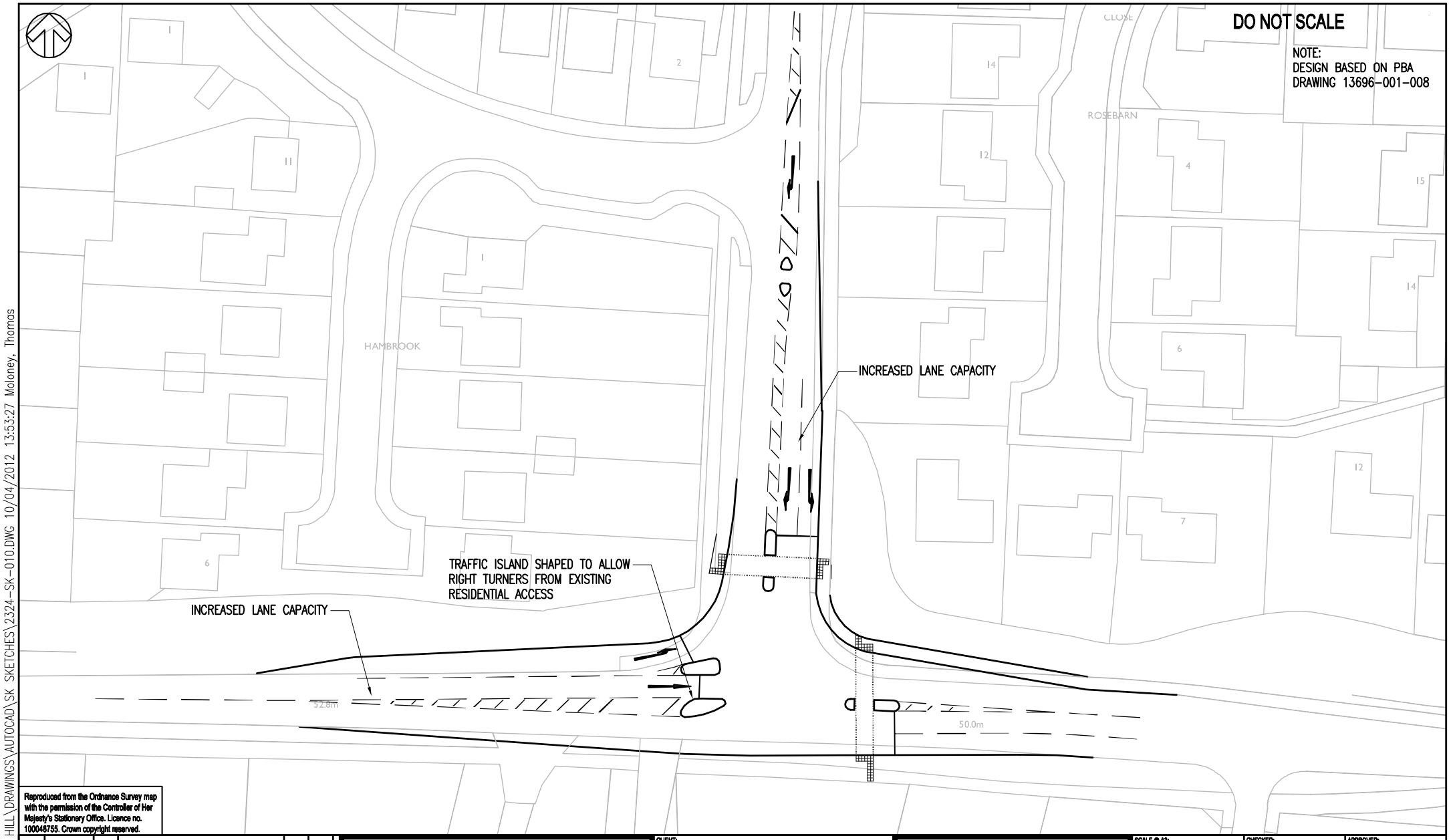
Arm	Year 2019 Base + Committed				Year 2019 Base + Committed + Dev.			
	AM Peak		PM Peak		AM Peak		PM Peak	
	DOS	Mean/ Max Queue	DOS	Mean/ Max Queue	DOS	Mean/ Max Queue	DOS	Mean/ Max Queue
Kings Way	60.6	8	58.4	5	62.0	8	58.5	5
Folders Lane (E)	61.8	11	59.6	6	61.8	11	60.9	6
Folders Lane (W)	61.3	9	54.5	6	60.5	9	55.4	6
Practical Reserve Capacity (PRC):	45.6%		51.0%		45.2%		47.9%	

Note: Cycle time is 90 seconds / Mean Max Queue in PCUs.
Source: LinSig

7.18 As can be seen from **Table 7.4**, the proposed development traffic will have immaterial impact on the operation of the committed signalised junction in 2019 when compared to the 'base + committed' scenario. The analysis demonstrates that the development traffic would not cause any additional queuing on lane approaches to the signals.

Appendix N

Folders Lane / Kings Way – Committed Junction Layout and Year 2019 LinSig Results



REV	DATE	BY	DESCRIPTION	CHK	APD
C	10/04/12	TDM	MINOR AMENDMENTS	AL	AL
B	28/01/11	TDM	MINOR AMENDMENTS	AL	AL
A	23/11/10	TDM	ISSUED	LB	AL

DRAWING STATUS: FOR INFORMATION ONLY

WSP
Mountbatten House, Basing View, Basingstoke, Hampshire RG21 4HJ
Tel: +44 (0)1256 318800 Fax: +44 (0)1256 318700
http://www.wspgroup.com

CLIENT: SUNLEY PROPERTY LLP

ARCHITECT:

PROJECT: KINGS WAY, BURGESS HILL

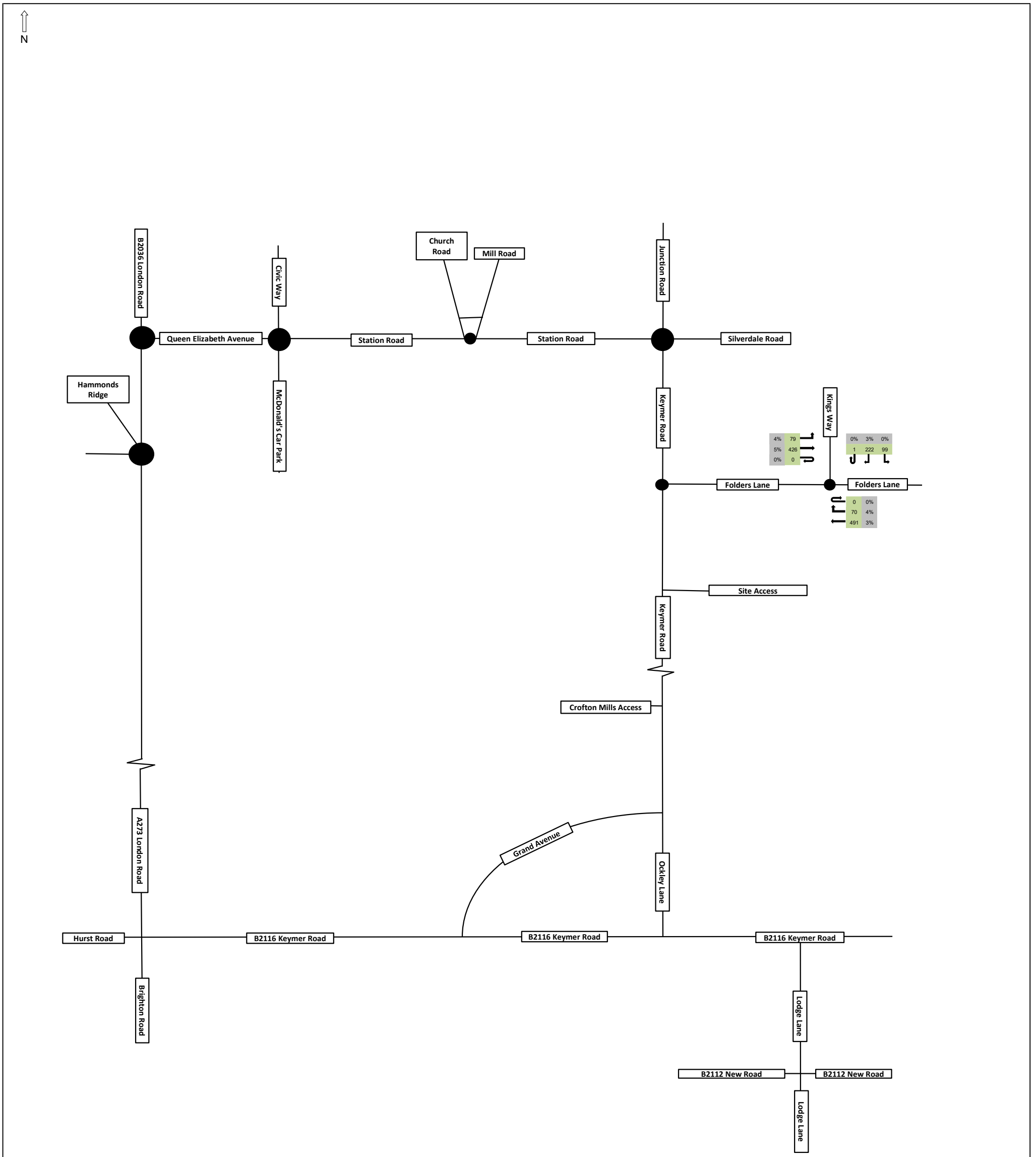
TITLE: PROPOSED B2113 FOLDERS LANE / KINGS WAY IMPROVEMENTS

SCALE @ A3:	CHECKED:	APPROVED:
1:500	LB	AL
CAD FILE:	DESIGN-DRAWN:	DATE:
2324-SK-010	TDM	November 2010
PROJECT No:	DRAWING No:	REV:
11012324	2324/SK/010	C

N:\KINGS WAY, BURGESS HILL\DRAWINGS\AUTOCAD\SK SKETCHES\2324-SK-010.DWG 10/04/2012 13:53:27 Moloney, Thomas

APPENDIX I

Traffic Flow Diagrams



Notes

Sourced from : Land to the South of Folders Lane Transport Assessment (December 2014)

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
Job Title: Land at Keymer Road, Burgess Hill		Job No: 14-205
Drawing Title: 2014 AM		Date: October 2020

ODYSSEY
Tuscany House - White Hart Lane
Basingstoke - Hampshire - RG21 4AF
T:01256 331144
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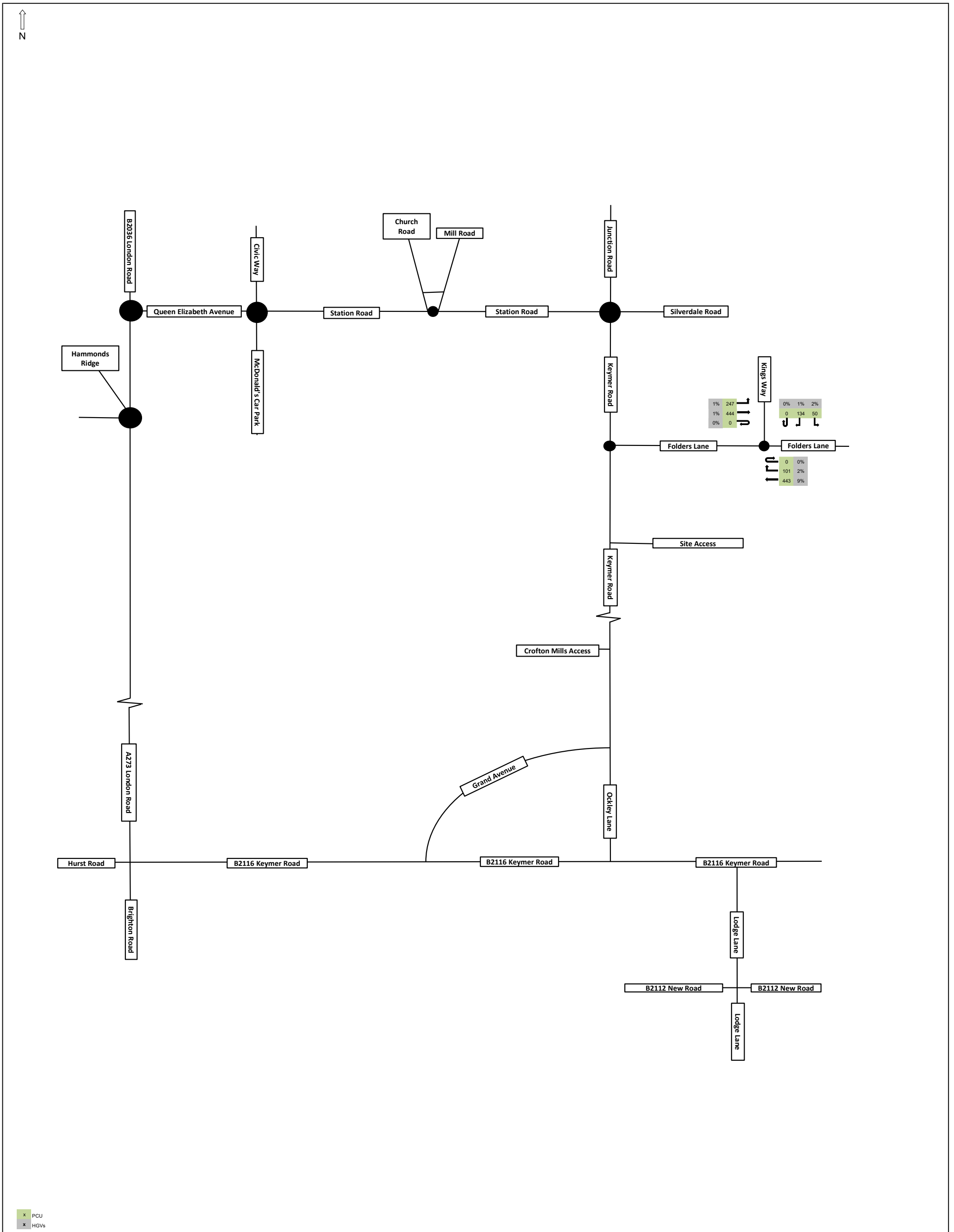

Notes

Sourced from : Land to the South of Folders Lane Transport Assessment (December 2014)

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
Job Title: Land at Keymer Road, Burgess Hill		Job No: 14-205
Drawing Title: 2014 PM		Date: October 2020

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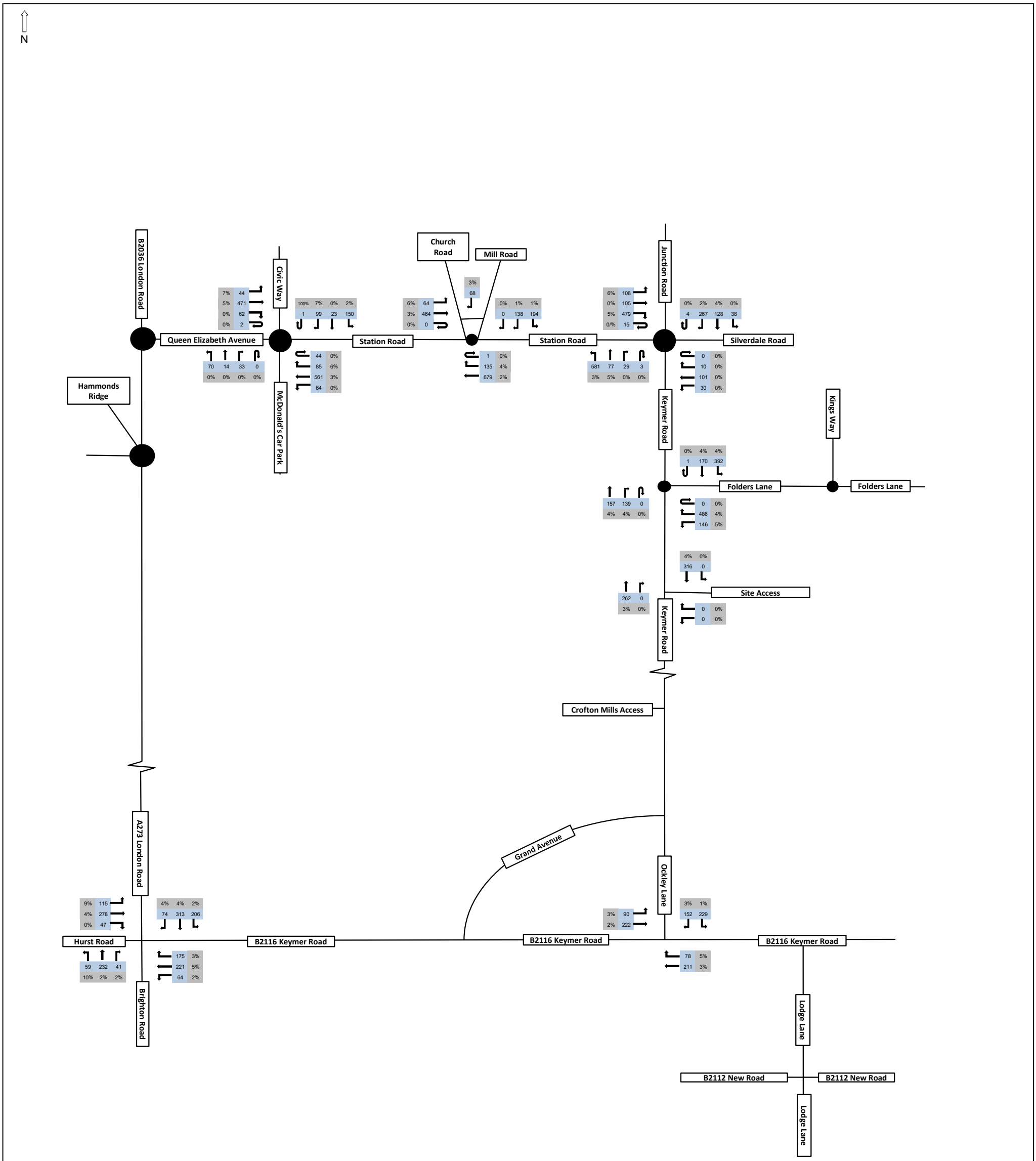

Notes

Sourced from : Clayton Mills Transport Assessment (December 2018)

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
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Drawing Title: 2017 AM (0745-0845) Base		Date: October 2020

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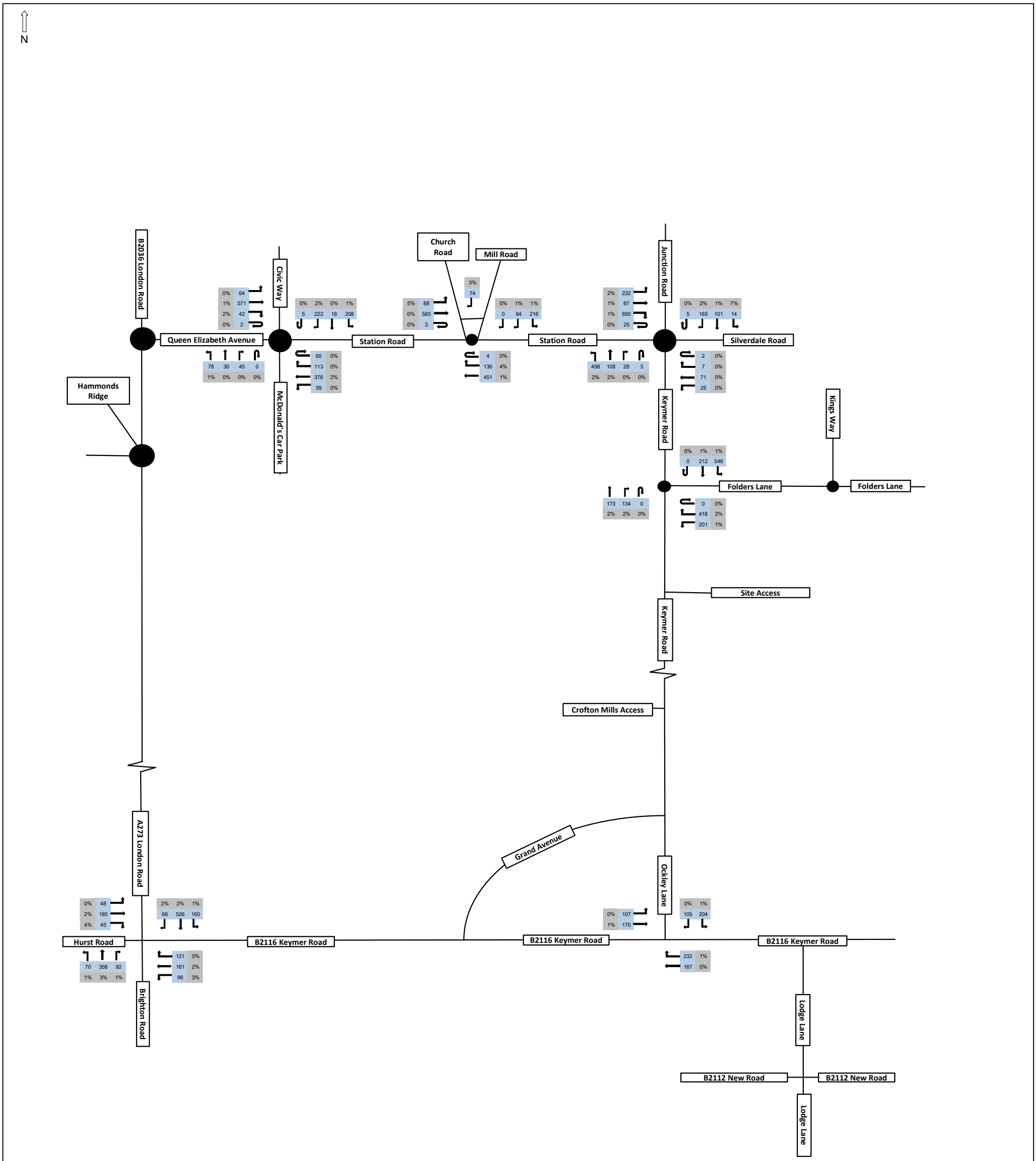

Notes

Sourced from : Clayton Mills Transport Assessment (December 2018)

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
Job Title: Land at Keymer Road, Burgess Hill		Job No: 14-205
Drawing Title: 2017 PM		Date: October 2020

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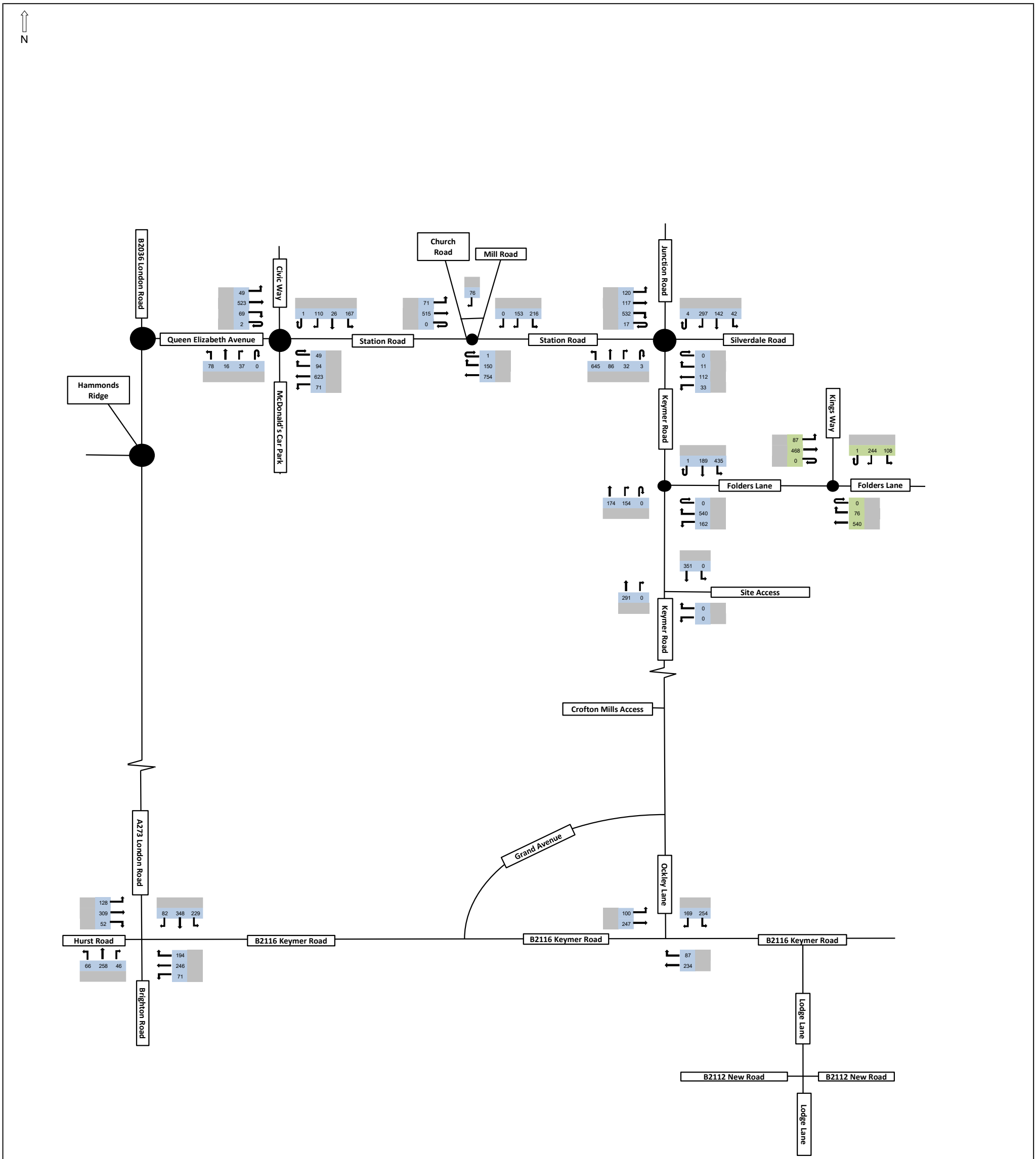

Notes	THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205	
	Drawing Title: 2031 AM	Date: October 2020	

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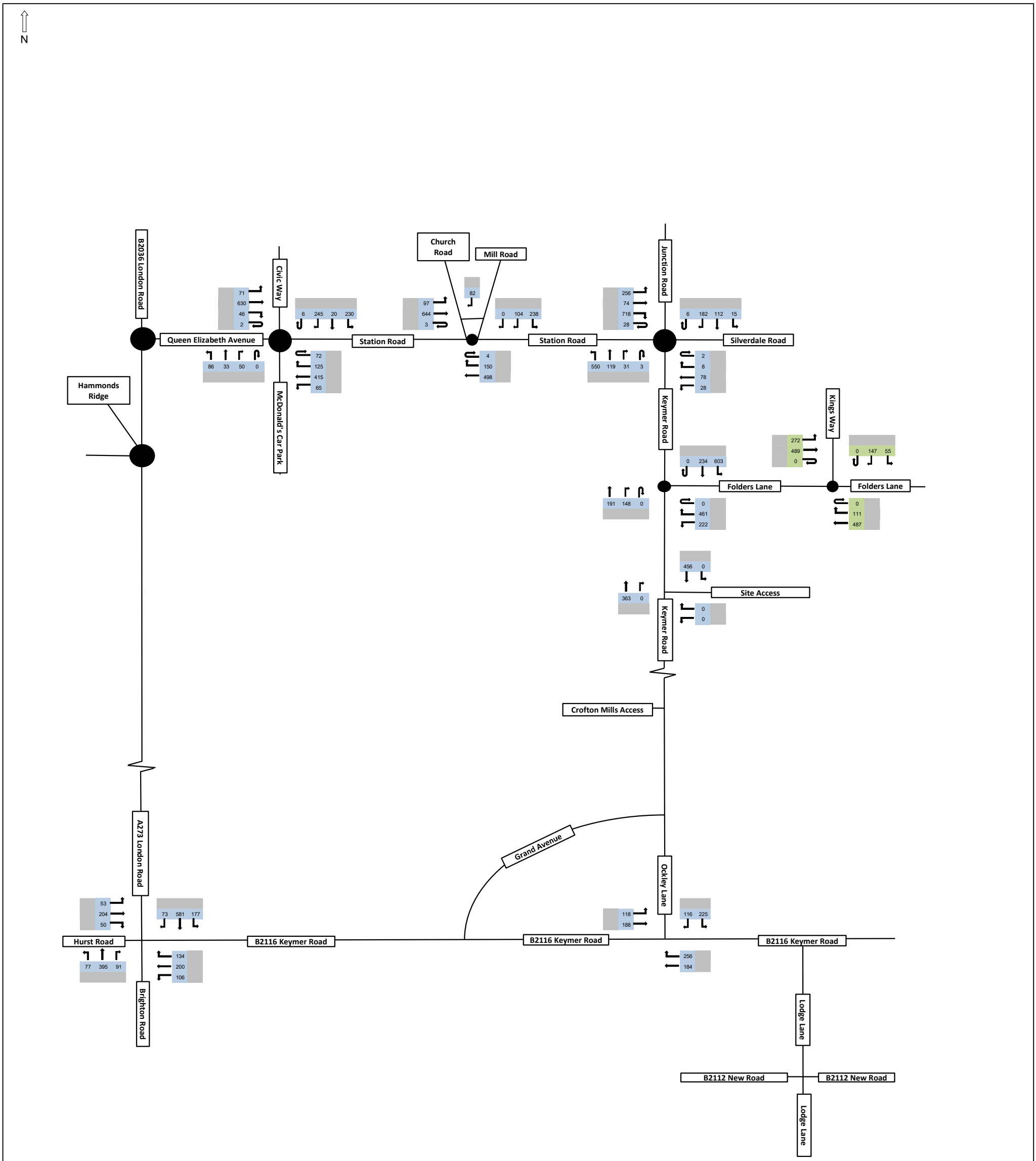

Notes

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
Job Title: Land at Keymer Road, Burgess Hill		Job No: 14-205
Drawing Title: 2031 PM		Date: October 2020

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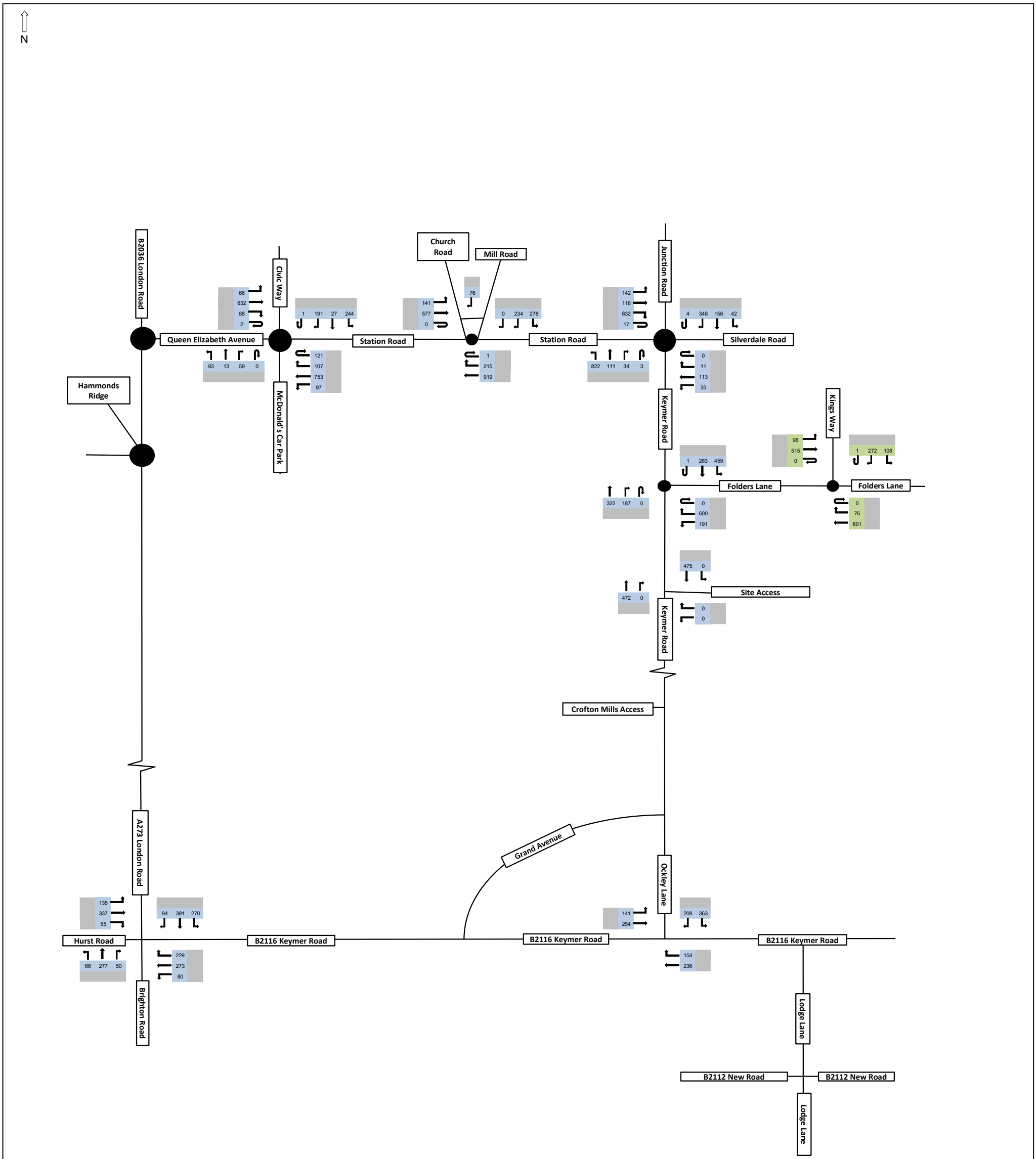

Notes

THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
Job Title: Land at Keymer Road, Burgess Hill		Job No: 14-205
Drawing Title: 2031 AM + Committed Development		Date: October 2020

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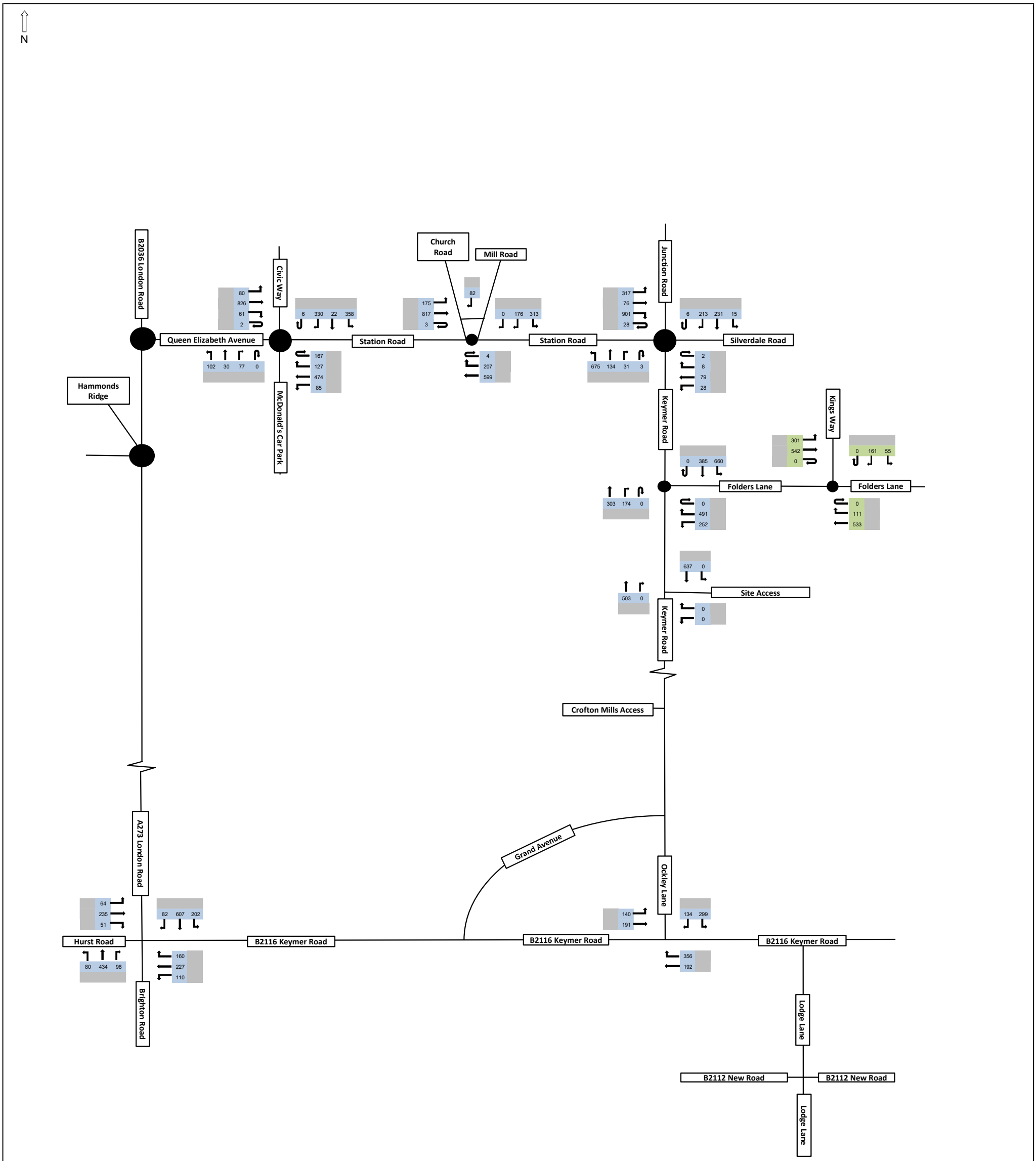

Notes	THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205	
	Drawing Title: 2031 PM + Committed Development	Date: October 2020	

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Basingstoke - HPMpshire - RG21 4AF
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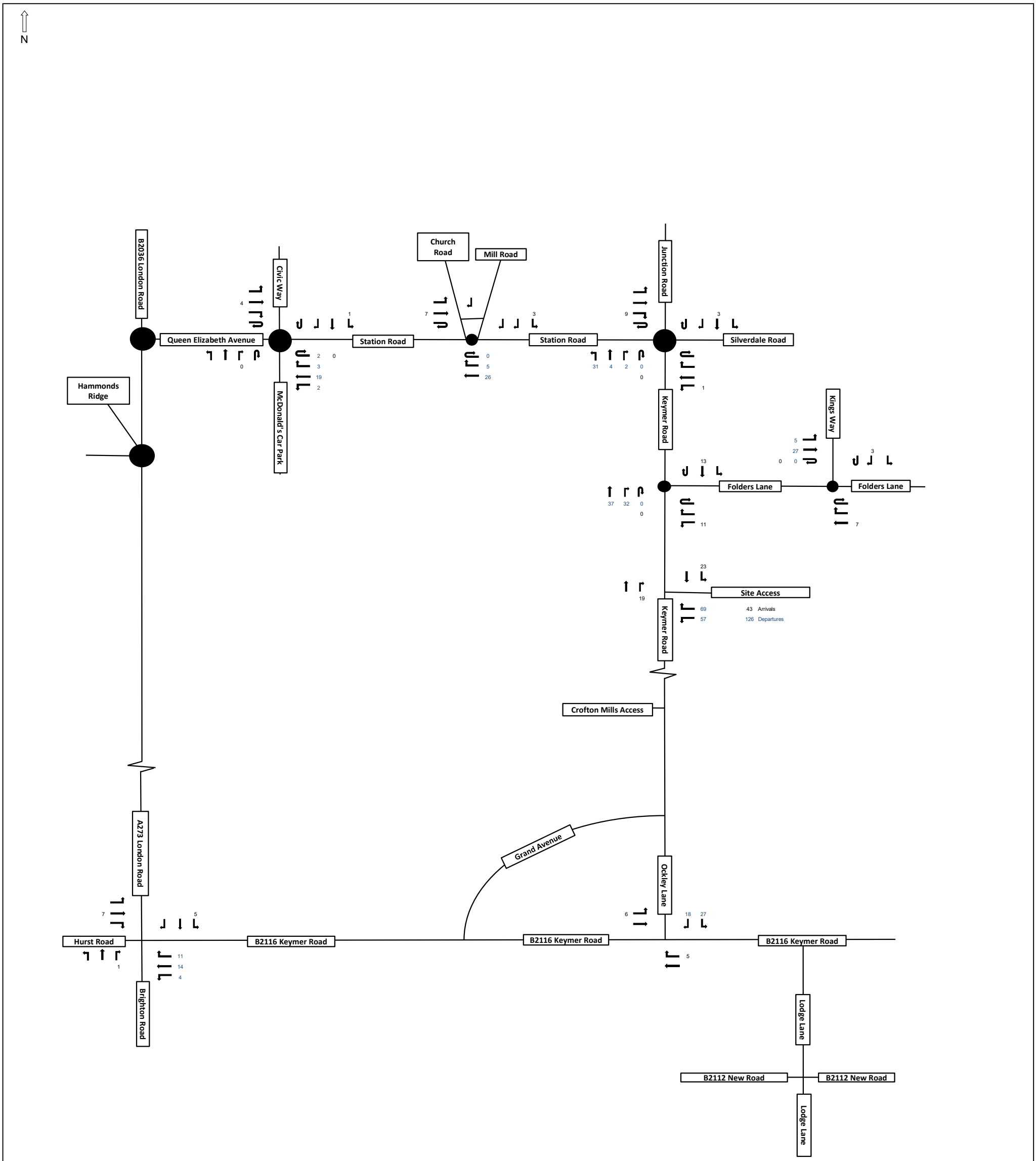

Notes	THAKEHAM HOMES AND PERSIMMON HOMES		Appendix I
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205	
	Drawing Title: AM Development Traffic Assignment	Date: October 2020	

ODYSSEY
Tuscany House - White Hart Lane
Basingstoke - Hampshire - RG21 4AF
T:01256 331144
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E:info@odysseyconsult.co.uk
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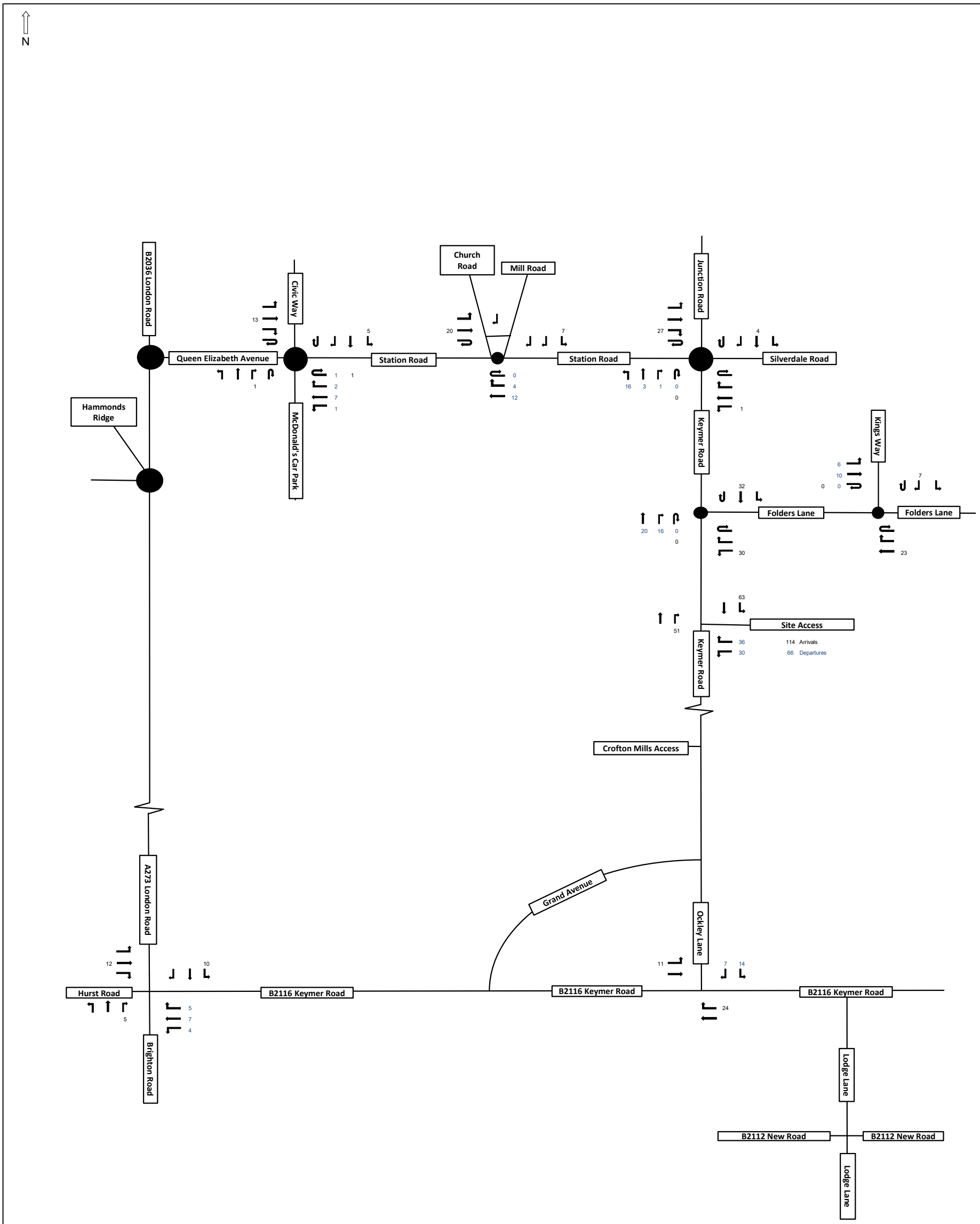

Notes	THAKEHAM HOMES AND PERSIMMON HOMES	Appendix I	
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205	
	Drawing Title: PM Development Traffic Assignment	Date: October 2020	

ODYSSEY
Tuscany House - White Hart Lane, Basingstoke - HPMpshire - RG21 4AF
T:01256 331144 F:01256 331134
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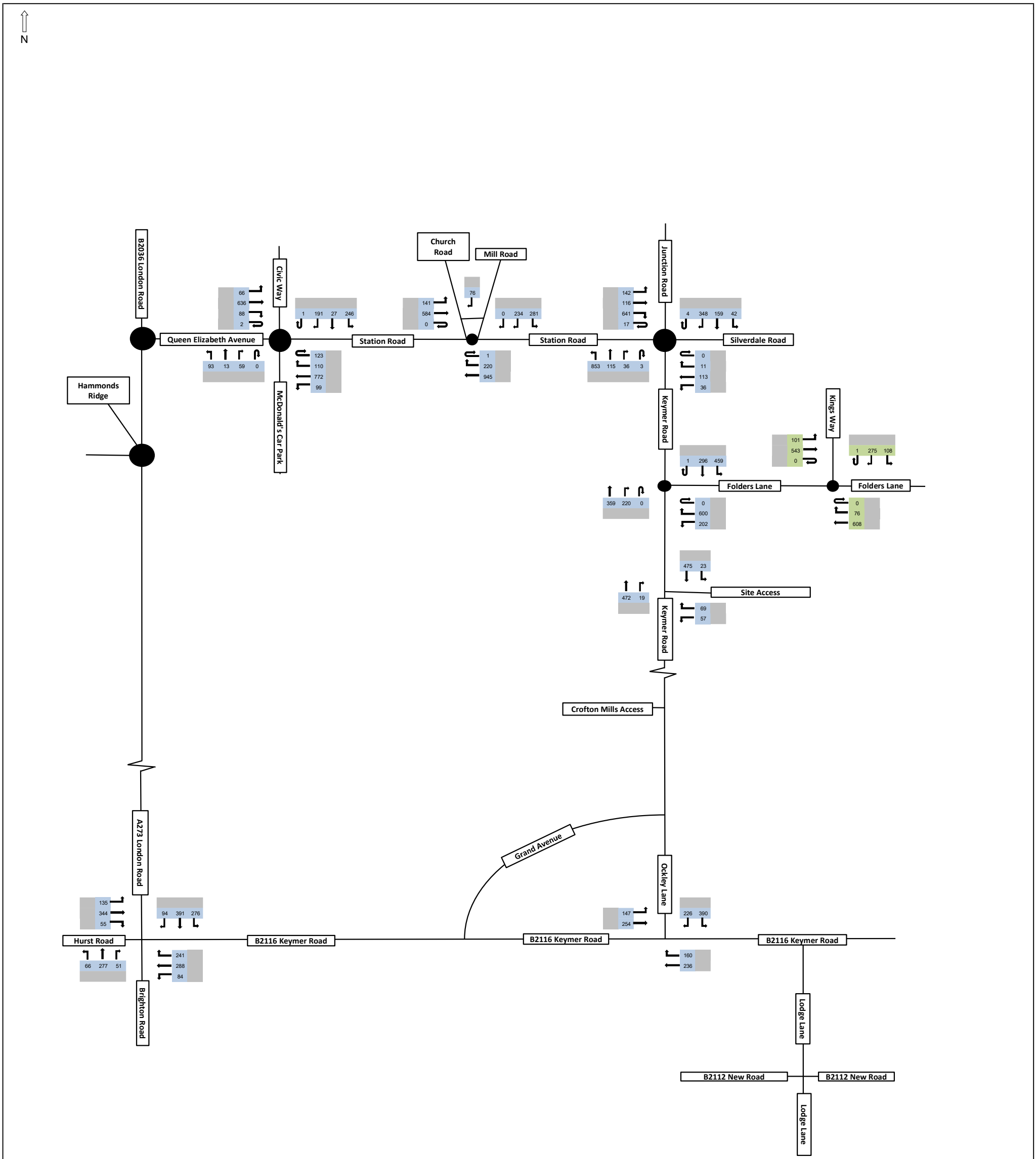

Notes	THAKEHAM HOMES AND PERSIMMON HOMES	Appendix I	
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205	
	Drawing Title: 2031 AM + Committed Development + Development	Date: October 2020	

ODYSSEY
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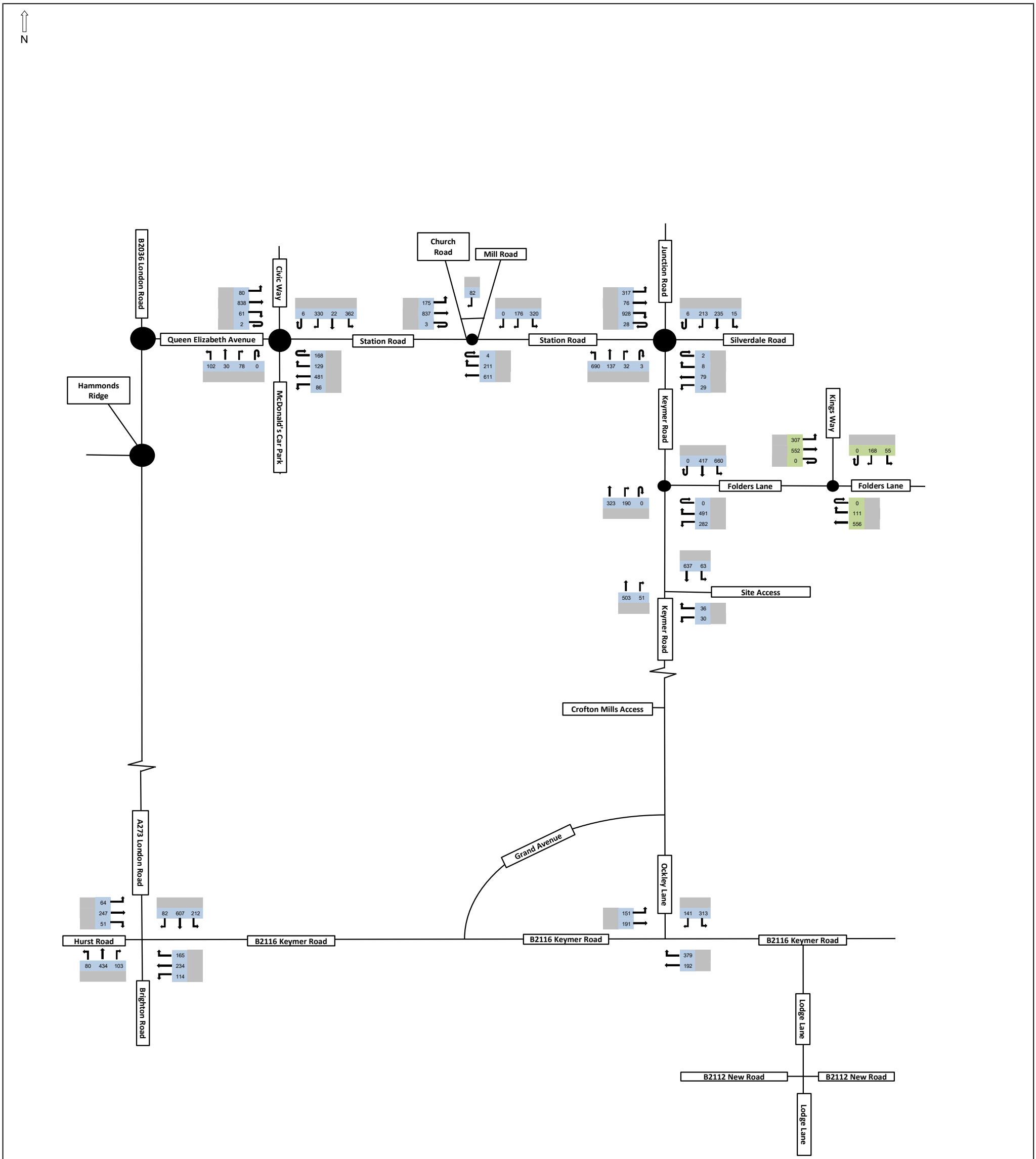

Notes	THAKEHAM HOMES AND PERSIMMON HOMES	Appendix I
	Job Title: Land at Keymer Road, Burgess Hill	Job No: 14-205
	Drawing Title: 2031 PM + Committed Development + Development	Date: October 2020

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APPENDIX J

Junction Capacity Assessments

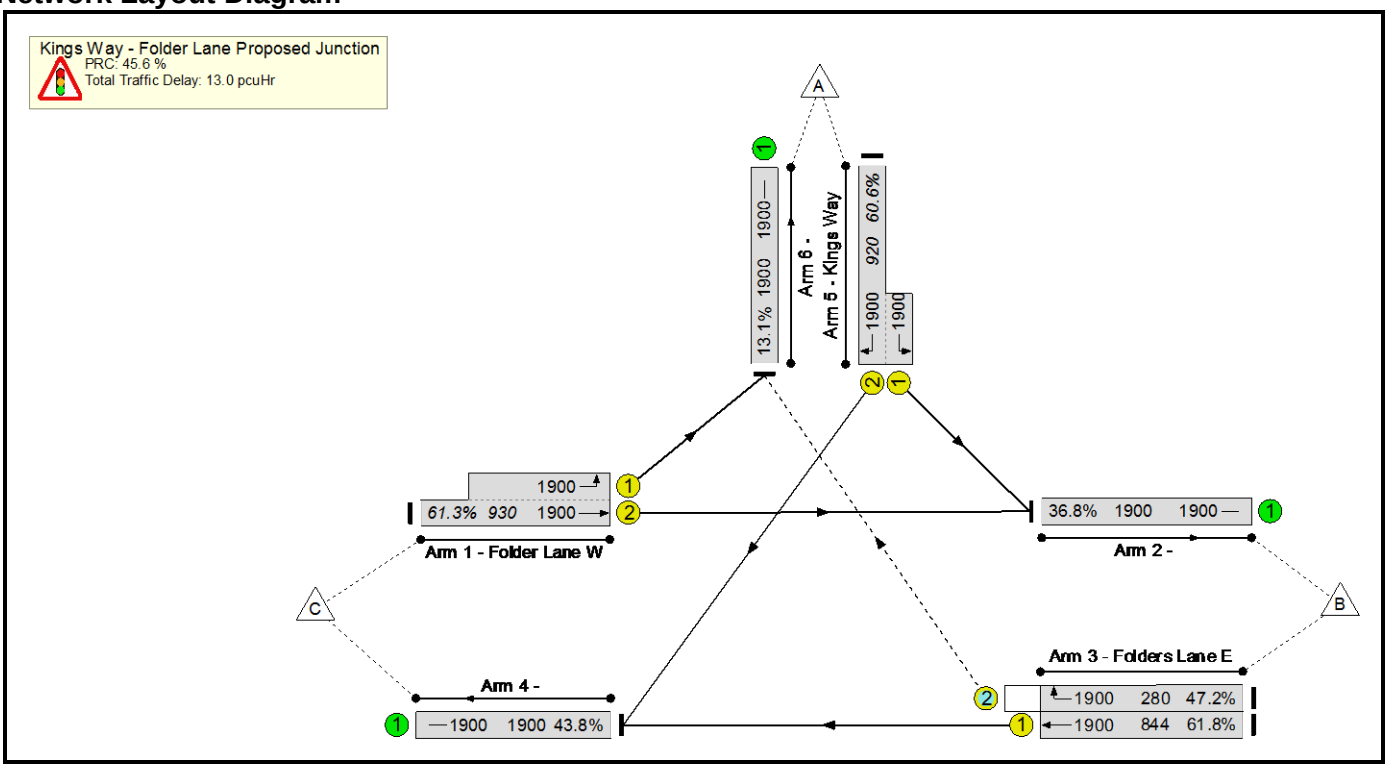
Basic Results Summary

User and Project Details

Project:	**Folders Lane, Burgess Hill**
Title:	
Location:	
File name:	Kings Way jw Folders Lane - proposed layout.lsg3x
Author:	GC
Company:	WYG
Address:	
Notes:	

Scenario 1: '2019 AM Base+Committed' (FG1: '2019 AM Base+Committed', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**61.8%**	**132**	**0**	**0**	**13.0**	**-**	**-**
Kings Way - Folder Lane Proposed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**61.8%**	**132**	**0**	**0**	**13.0**	**-**	**-**
1/2+1/1	Folder Lane W Ahead Left	U	C		1	39	-	570	1900:1900	930	61.3%	-	-	-	3.6	22.5	9.1
2/1		U	-		-	-	-	699	1900	1900	36.8%	-	-	-	0.3	1.5	0.3
3/1	Folders Lane E Ahead	U	B		1	39	-	522	1900	844	61.8%	-	-	-	3.6	24.7	10.7
3/2	Folders Lane E Right	O	B		1	39	-	132	1900	280	47.2%	132	0	0	1.5	41.0	2.4
4/1		U	-		-	-	-	833	1900	1900	43.8%	-	-	-	0.4	1.7	0.4
5/2+5/1	Kings Way Left Right	U	A		1	37	-	557	1900:1900	920	60.6%	-	-	-	3.6	23.0	7.7
6/1		U	-		-	-	-	249	1900	1900	13.1%	-	-	-	0.1	1.1	0.1

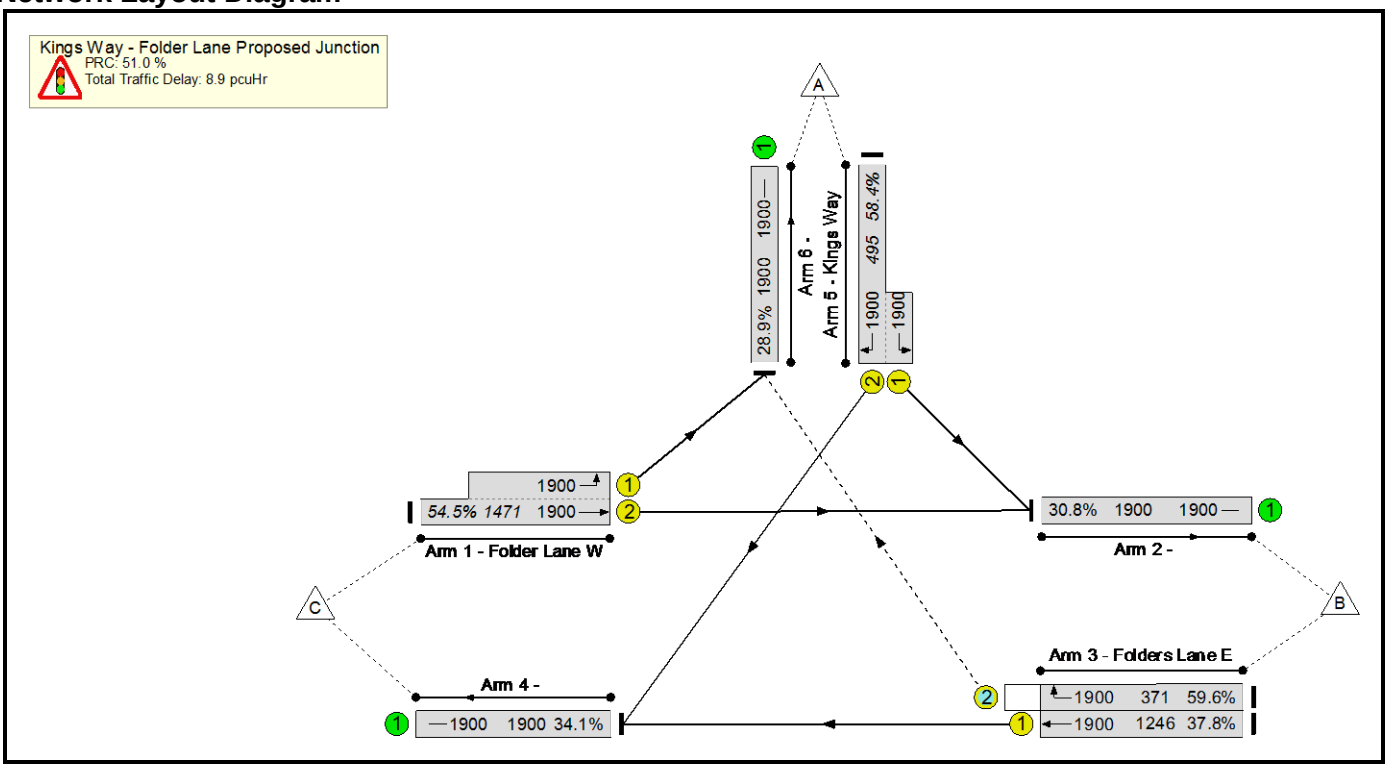
C1 PRC for Signalled Lanes (%): 45.6 Total Delay for Signalled Lanes (pcuHr): 12.21 Cycle Time (s): 90

PRC Over All Lanes (%): 45.6 Total Delay Over All Lanes(pcuHr): 12.97

Basic Results Summary

Scenario 2: '2019 PM Base+Committed' (FG2: '2019 PM Base+Committed ', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

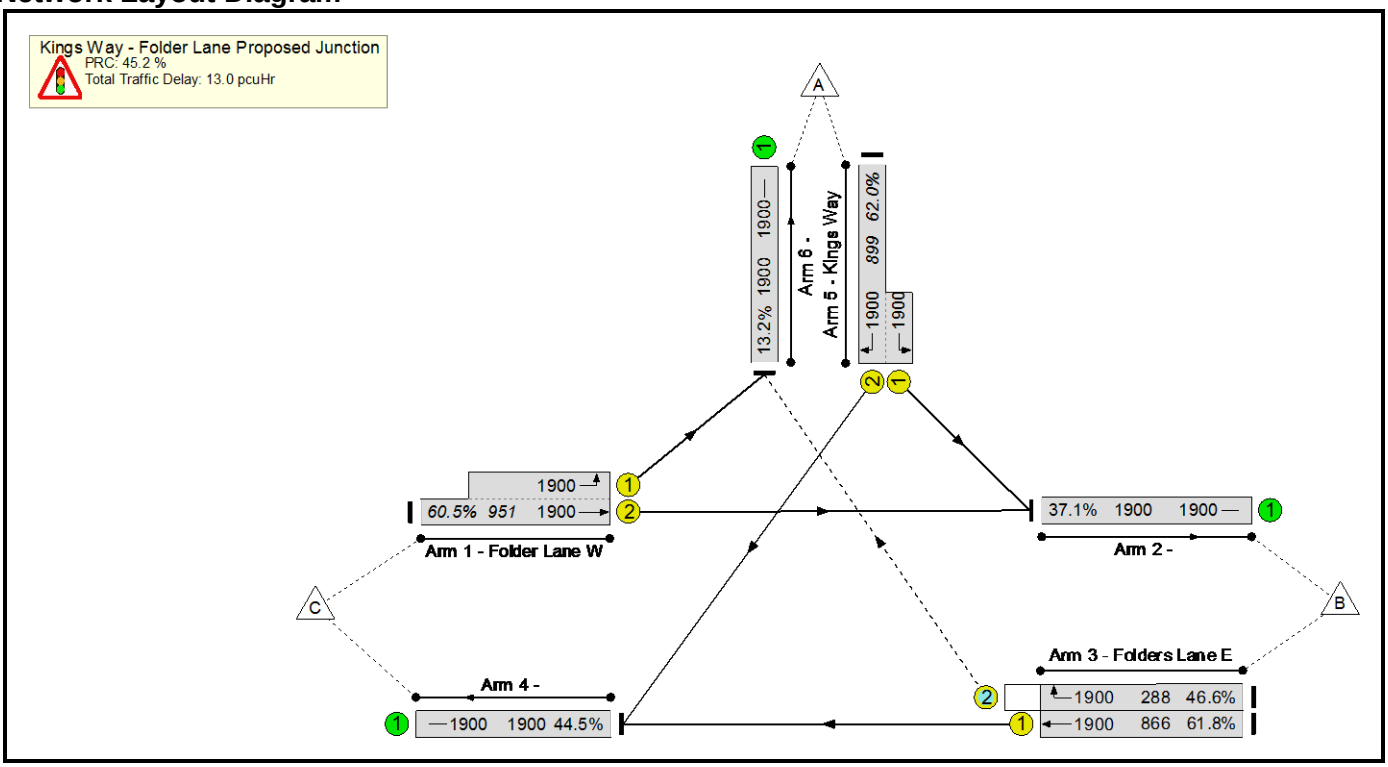
Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.6%**	**221**	**0**	**0**	**8.9**	**-**	**-**
Kings Way - Folder Lane Proposed Junction	**-**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**59.6%**	**221**	**0**	**0**	**8.9**	**-**	**-**
1/2+1/1	Folder Lane W Ahead Left	U	C		1	58	-	801	1900:1900	1471	54.5%	-	-	-	2.1	9.5	6.0
2/1		U	-		-	-	-	586	1900	1900	30.8%	-	-	-	0.2	1.4	0.2
3/1	Folders Lane E Ahead	U	B		1	58	-	471	1900	1246	37.8%	-	-	-	1.2	9.4	5.7
3/2	Folders Lane E Right	O	B		1	58	-	221	1900	371	59.6%	221	0	0	1.7	27.8	3.8
4/1		U	-		-	-	-	647	1900	1900	34.1%	-	-	-	0.3	1.4	0.3
5/2+5/1	Kings Way Left Right	U	A		1	18	-	289	1900:1900	495	58.4%	-	-	-	3.1	39.1	4.5
6/1		U	-		-	-	-	549	1900	1900	28.9%	-	-	-	0.2	1.3	0.2

C1 PRC for Signalled Lanes (%): 51.0 Total Delay for Signalled Lanes (pcuHr): 8.20 Cycle Time (s): 90
PRC Over All Lanes (%): 51.0 Total Delay Over All Lanes(pcuHr): 8.89

Basic Results Summary

Scenario 3: '2019 AM Base+Com+Dev' (FG3: '2019 AM Base+Committed+Development', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**62.0%**	**134**	**0**	**0**	**13.0**	-	-
Kings Way - Folder Lane Proposed Junction	-	-	-		-	-	-	-	-	-	**62.0%**	**134**	**0**	**0**	**13.0**	-	-
1/2+1/1	Folder Lane W Ahead Left	U	C		1	40	-	575	1900:1900	951	60.5%	-	-	-	3.5	21.7	9.1
2/1		U	-		-	-	-	704	1900	1900	37.1%	-	-	-	0.3	1.5	0.3
3/1	Folders Lane E Ahead	U	B		1	40	-	535	1900	866	61.8%	-	-	-	3.6	24.0	10.9
3/2	Folders Lane E Right	O	B		1	40	-	134	1900	288	46.6%	134	0	0	1.5	39.8	2.4
4/1		U	-		-	-	-	846	1900	1900	44.5%	-	-	-	0.4	1.7	0.4
5/2+5/1	Kings Way Left Right	U	A		1	36	-	557	1900:1900	899	62.0%	-	-	-	3.7	24.1	8.0
6/1		U	-		-	-	-	251	1900	1900	13.2%	-	-	-	0.1	1.1	0.1

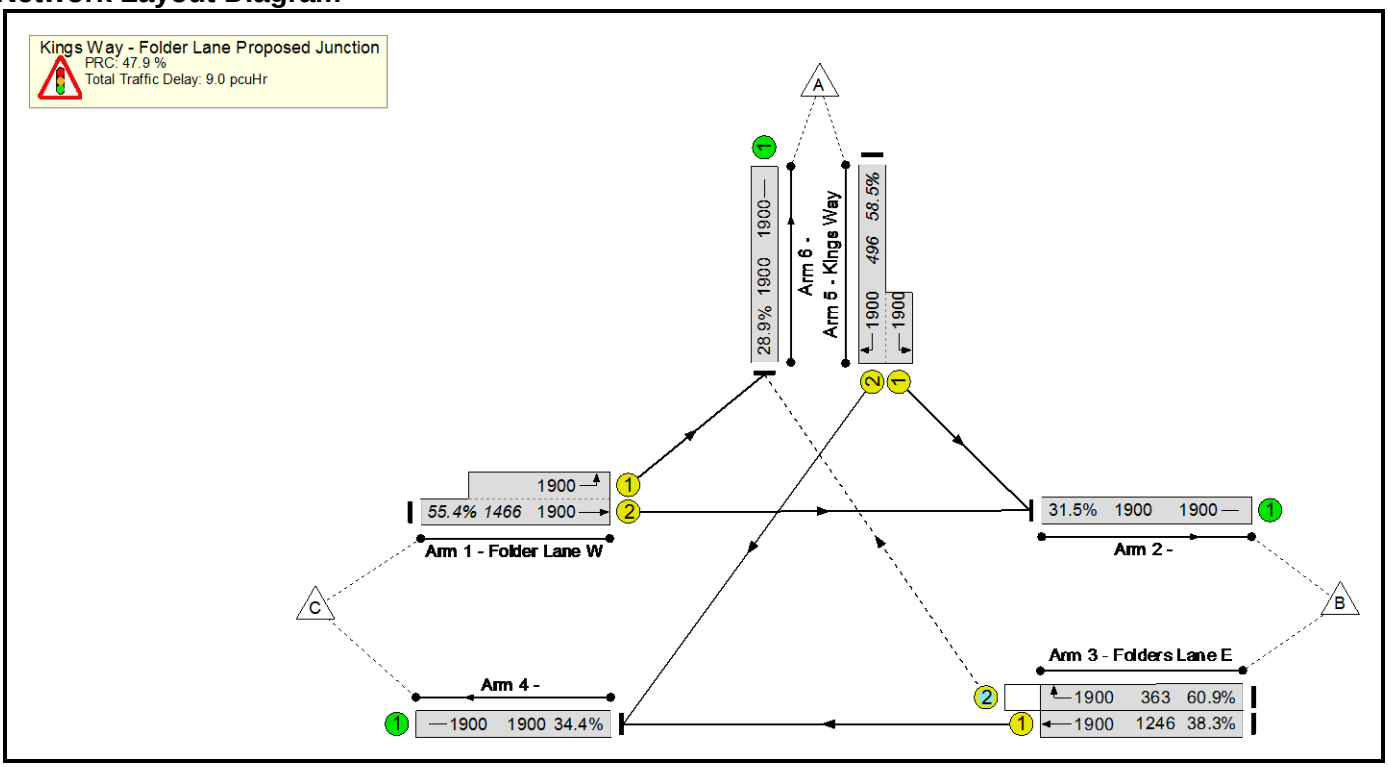
C1 PRC for Signalled Lanes (%): 45.2 Total Delay for Signalled Lanes (pcuHr): 12.23 Cycle Time (s): 90

PRC Over All Lanes (%): 45.2 Total Delay Over All Lanes(pcuHr): 13.00

Basic Results Summary

Scenario 4: '2019 PM Base+Com+Dev' (FG4: '2019 PM Base+Committed+Development', Plan 1: 'Network Control Plan 1')

Network Layout Diagram



Basic Results Summary

Network Results

Item	Lane Description	Lane Type	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	-	-		-	-	-	-	-	-	**60.9%**	**221**	**0**	**0**	**9.0**	-	-
Kings Way - Folder Lane Proposed Junction	-	-	-		-	-	-	-	-	-	**60.9%**	**221**	**0**	**0**	**9.0**	-	-
1/2+1/1	Folder Lane W Ahead Left	U	C		1	58	-	812	1900:1900	1466	55.4%	-	-	-	2.2	9.6	6.1
2/1		U	-		-	-	-	598	1900	1900	31.5%	-	-	-	0.2	1.4	0.2
3/1	Folders Lane E Ahead	U	B		1	58	-	477	1900	1246	38.3%	-	-	-	1.3	9.5	5.7
3/2	Folders Lane E Right	O	B		1	58	-	221	1900	363	60.9%	221	0	0	1.8	28.8	3.9
4/1		U	-		-	-	-	653	1900	1900	34.4%	-	-	-	0.3	1.4	0.3
5/2+5/1	Kings Way Left Right	U	A		1	18	-	290	1900:1900	496	58.5%	-	-	-	3.2	39.1	4.5
6/1		U	-		-	-	-	549	1900	1900	28.9%	-	-	-	0.2	1.3	0.2

C1 PRC for Signalled Lanes (%): 47.9 Total Delay for Signalled Lanes (pcuHr): 8.35 Cycle Time (s): 90

PRC Over All Lanes (%): 47.9 Total Delay Over All Lanes(pcuHr): 9.05

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

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

Filename: Prioity Junction of Keymar Road & Site Access.j9
Path: P:\14-205 - Land at Keymer Road, Burgess Hill\Trans\Picady
Report generation date: 05/10/2020 11:13:23

Summary of junction performance

	AM							PM						
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Network Residual Capacity
	2031 + Com + Dev													
Stream B-AC	D1	0.5	14.04	0.35	B	1.72	41 %	D2	0.3	13.92	0.22	B	1.18	39 %
Stream C-AB		0.1	4.76	0.06	A		[Stream B-AC]		0.5	5.17	0.19	A		[Stream B-AC]

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	(untitled)
Location	
Site number	
Date	12/12/2016
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ODYSSEY-CE\msheridan
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

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	2031 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D2	2031 + Com + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2031 + Com + Dev, 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		1.72	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	41	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	Keymer Roas (SB)		Major
B	Site Access		Minor
C	Keymer Road (NB)		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	6.00			100.0	✓	0.00

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	One lane	2.75	120	120

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	564	0.103	0.259	0.163	0.371
B-C	682	0.105	0.264	-	-
C-B	632	0.245	0.245	-	-

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	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031 + Com + Dev	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 (%)
A		ONE HOUR	✓	498	100.000
B		ONE HOUR	✓	126	100.000
C		ONE HOUR	✓	491	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	23	475
	B	69	0	57
	C	472	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	4
	B	0	0	0
	C	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	14.04	0.5	B	116	173
C-AB	0.06	4.76	0.1	A	38	57
C-A					412	619
A-B					21	32
A-C					436	654

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	95	24	466	0.204	94	0.0	0.3	9.645	A
C-AB	26	7	783	0.033	26	0.0	0.0	4.757	A
C-A	343	86			343				
A-B	17	4			17				
A-C	358	89			358				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	113	28	437	0.259	113	0.3	0.3	11.102	B
C-AB	36	9	817	0.044	36	0.0	0.1	4.605	A
C-A	406	101			406				
A-B	21	5			21				
A-C	427	107			427				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	395	0.351	138	0.3	0.5	13.963	B
C-AB	53	13	866	0.061	52	0.1	0.1	4.421	A
C-A	488	122			488				
A-B	25	6			25				
A-C	523	131			523				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	395	0.351	139	0.5	0.5	14.041	B
C-AB	53	13	866	0.061	53	0.1	0.1	4.429	A
C-A	488	122			488				
A-B	25	6			25				
A-C	523	131			523				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	113	28	437	0.259	114	0.5	0.4	11.184	B
C-AB	36	9	817	0.044	36	0.1	0.1	4.620	A
C-A	406	101			406				
A-B	21	5			21				
A-C	427	107			427				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	95	24	466	0.204	95	0.4	0.3	9.720	A
C-AB	26	7	783	0.034	26	0.1	0.0	4.764	A
C-A	343	86			343				
A-B	17	4			17				
A-C	358	89			358				

2031 + Com + Dev, 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		1.18	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	39	Stream B-AC

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	2031 + Com + Dev	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	700	100.000
B		ONE HOUR	✓	66	100.000
C		ONE HOUR	✓	554	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	63	637
	B	36	0	30
	C	503	51	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.22	13.92	0.3	B	61	91
C-AB	0.19	5.17	0.5	A	113	170
C-A					395	592
A-B					58	87
A-C					585	877

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	425	0.117	49	0.0	0.1	9.568	A
C-AB	75	19	774	0.097	74	0.0	0.2	5.147	A
C-A	342	85			342				
A-B	47	12			47				
A-C	480	120			480				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	386	0.154	59	0.1	0.2	10.995	B
C-AB	105	26	808	0.130	104	0.2	0.3	5.121	A
C-A	393	98			393				
A-B	57	14			57				
A-C	573	143			573				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	331	0.219	72	0.2	0.3	13.871	B
C-AB	159	40	858	0.186	159	0.3	0.5	5.151	A
C-A	450	113			450				
A-B	69	17			69				
A-C	701	175			701				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	73	18	331	0.219	73	0.3	0.3	13.920	B
C-AB	160	40	859	0.186	160	0.5	0.5	5.169	A
C-A	450	113			450				
A-B	69	17			69				
A-C	701	175			701				

18:00 - 18:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	59	15	386	0.154	60	0.3	0.2	11.044	B
C-AB	105	26	809	0.130	106	0.5	0.3	5.146	A
C-A	393	98			393				
A-B	57	14			57				
A-C	573	143			573				

18:15 - 18:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	50	12	425	0.117	50	0.2	0.1	9.614	A
C-AB	76	19	774	0.098	76	0.3	0.2	5.172	A
C-A	341	85			341				
A-B	47	12			47				
A-C	480	120			480				

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: KR & FL Roundabout - Flare Improvements.j9
Path: P:\14-205 - Land at Keymer Road, Burgess Hill\Trans\Arcady
Report generation date: 08/10/2020 09:11:14

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2031											
Arm 1	D1	4.9	23.73	0.84	C	6 %	D2	4.2	20.88	0.82	C	8 %
Arm 2		1.5	15.32	0.61	C			1.3	12.59	0.57	B	
Arm 3		1.3	6.96	0.57	A	[Arm 1]		2.8	11.04	0.74	B	[Arm 1]
	2031 + Com											
Arm 1	D3	22.0	91.12	1.01	F	-11 %	D4	16.0	72.66	0.98	F	-8 %
Arm 2		13.5	89.58	0.98	F			3.9	28.56	0.81	D	
Arm 3		2.2	9.75	0.69	A	[Arm 2]		11.1	37.26	0.94	E	[Arm 1]
	2031 + Com + Dev											
Arm 1	D5	28.1	111.02	1.03	F	-11 %	D6	29.7	120.37	1.04	F	-12 %
Arm 2		7.8	57.18	0.92	F			5.4	36.66	0.86	E	
Arm 3		2.9	12.31	0.75	B	[Arm 1]		17.1	54.17	0.97	F	[Arm 1]

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	24/09/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ODYSSEY-CE\escottholt
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	mph	Veh	Veh	perTimeSegment	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	2031	AM	ONE HOUR	07:45	09:15	15	✓
D2	2031	PM	ONE HOUR	17:00	18:30	15	✓
D3	2031 + Com	AM	ONE HOUR	07:45	09:15	15	✓
D4	2031 + Com	PM	ONE HOUR	17:00	18:30	15	✓
D5	2031 + Com + Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2031 + Com + Dev	PM	ONE HOUR	17:00	18:30	15	✓

Analysis Set Details

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

2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	15.74	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	6	Arm 1

Arms

Arms

Arm	Name	Description
1	Folder Lane	
2	Keymer Road (South)	
3	Keymer Road (North)	

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	3.00	4.00	5.0	12.0	14.0	25.5	
2	3.00	3.00	0.0	40.0	15.0	27.0	
3	3.00	5.00	17.3	16.0	15.0	25.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1	0.531	268.795
2	0.520	235.172
3	0.597	339.570

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031	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/TS)	Scaling Factor (%)
1		ONE HOUR	✓	175.50	100.000
2		ONE HOUR	✓	82.00	100.000
3		ONE HOUR	✓	156.25	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	40.50	135.00
	2	38.50	0.00	43.50
	3	108.75	47.25	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	4
	2	4	0	4
	3	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.84	23.73	4.9	C	161.04	966.25
2	0.61	15.32	1.5	C	75.24	451.47
3	0.57	6.96	1.3	A	143.38	860.26

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	132.13	132.13	35.58	239.02	0.553	130.91	110.18	0.0	1.2	8.236	A
2	61.73	61.73	100.89	173.70	0.355	61.19	65.60	0.0	0.5	7.962	A
3	117.63	117.63	28.73	309.38	0.380	117.02	133.35	0.0	0.6	4.650	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157.77	157.77	42.63	235.28	0.671	157.02	132.09	1.2	2.0	11.385	B
2	73.72	73.72	121.01	163.25	0.452	73.45	78.64	0.5	0.8	9.992	A
3	140.47	140.47	34.49	305.94	0.459	140.23	159.97	0.6	0.8	5.423	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193.23	193.23	52.16	230.23	0.839	190.63	161.49	2.0	4.6	21.413	C
2	90.28	90.28	146.91	149.79	0.603	89.63	95.87	0.8	1.5	14.798	B
3	172.03	172.03	42.08	301.41	0.571	171.57	194.46	0.8	1.3	6.906	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	193.23	193.23	52.29	230.16	0.840	192.94	162.10	4.6	4.9	23.726	C
2	90.28	90.28	148.69	148.86	0.606	90.24	96.54	1.5	1.5	15.324	C
3	172.03	172.03	42.37	301.24	0.571	172.02	196.56	1.3	1.3	6.964	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	157.77	157.77	42.84	235.17	0.671	160.51	133.00	4.9	2.1	12.465	B
2	73.72	73.72	123.69	161.85	0.455	74.37	79.66	1.5	0.9	10.361	B
3	140.47	140.47	34.92	305.69	0.460	140.92	163.15	1.3	0.9	5.479	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	132.13	132.13	35.83	238.89	0.553	132.98	111.16	2.1	1.3	8.566	A
2	61.73	61.73	102.48	172.88	0.357	62.02	66.33	0.9	0.6	8.141	A
3	117.63	117.63	29.12	309.15	0.381	117.87	135.38	0.9	0.6	4.710	A

2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	14.95	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	8	Arm 1

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	2031	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/TS)	Scaling Factor (%)
1		ONE HOUR	✓	170.75	100.000
2		ONE HOUR	✓	84.75	100.000
3		ONE HOUR	✓	209.25	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	55.50	115.25
	2	37.00	0.00	47.75
	3	150.75	58.50	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.82	20.88	4.2	C	156.68	940.10
2	0.57	12.59	1.3	B	77.77	466.61
3	0.74	11.04	2.8	B	192.01	1152.07

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	128.55	128.55	43.77	241.26	0.533	127.43	140.43	0.0	1.1	7.834	A
2	63.80	63.80	86.01	185.86	0.343	63.29	85.19	0.0	0.5	7.311	A
3	157.53	157.53	27.63	319.55	0.493	156.57	121.67	0.0	1.0	5.491	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	153.50	153.50	52.46	236.67	0.649	152.83	168.34	1.1	1.8	10.646	B
2	76.19	76.19	103.16	176.95	0.431	75.96	102.13	0.5	0.7	8.891	A
3	188.11	188.11	33.16	316.22	0.595	187.63	145.95	1.0	1.4	6.972	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188.00	188.00	64.05	230.55	0.815	185.81	205.58	1.8	4.0	19.220	C
2	93.31	93.31	125.42	165.39	0.564	92.80	124.45	0.7	1.3	12.310	B
3	230.39	230.39	40.51	311.79	0.739	229.12	177.70	1.4	2.7	10.721	B

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	188.00	188.00	64.39	230.37	0.816	187.79	206.66	4.0	4.2	20.875	C
2	93.31	93.31	126.75	164.69	0.567	93.28	125.43	1.3	1.3	12.592	B
3	230.39	230.39	40.73	311.66	0.739	230.33	179.31	2.7	2.8	11.043	B

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	153.50	153.50	52.95	236.42	0.649	155.77	169.92	4.2	1.9	11.456	B
2	76.19	76.19	105.14	175.92	0.433	76.70	103.58	1.3	0.8	9.117	A
3	188.11	188.11	33.48	316.03	0.595	189.38	148.35	2.8	1.5	7.178	A

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	128.55	128.55	44.19	241.04	0.533	129.30	141.82	1.9	1.2	8.108	A
2	63.80	63.80	87.27	185.21	0.345	64.05	86.21	0.8	0.5	7.442	A
3	157.53	157.53	27.96	319.35	0.493	158.05	123.36	1.5	1.0	5.598	A

2031 + Com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	61.17	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-11	Arm 2

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	2031 + Com	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/TS)	Scaling Factor (%)
1		ONE HOUR	✓	197.75	100.000
2		ONE HOUR	✓	127.25	100.000
3		ONE HOUR	✓	185.75	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	47.75	150.00
	2	46.75	0.00	80.50
	3	114.75	70.75	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	4
	2	4	0	4
	3	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	1.01	91.12	22.0	F	181.46	1088.76
2	0.98	89.58	13.5	F	116.77	700.60
3	0.69	9.75	2.2	A	170.45	1022.68

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	148.88	148.88	53.13	229.69	0.648	147.10	120.60	0.0	1.8	10.681	B
2	95.80	95.80	111.76	168.05	0.570	94.52	88.47	0.0	1.3	12.039	B
3	139.84	139.84	34.72	305.80	0.457	139.01	171.55	0.0	0.8	5.369	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	177.77	177.77	63.68	224.10	0.793	176.04	144.50	1.8	3.5	18.083	C
2	114.40	114.40	133.76	156.62	0.730	113.17	105.96	1.3	2.5	20.149	C
3	166.98	166.98	41.58	301.71	0.553	166.60	205.35	0.8	1.2	6.642	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217.73	217.73	77.82	216.60	1.005	205.86	174.66	3.5	15.4	55.053	F
2	140.10	140.10	156.43	144.84	0.967	133.04	127.26	2.5	9.6	56.542	F
3	204.51	204.51	48.88	297.35	0.688	203.60	240.59	1.2	2.1	9.506	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	217.73	217.73	78.16	216.43	1.006	211.07	176.34	15.4	22.0	91.116	F
2	140.10	140.10	160.38	142.79	0.981	136.18	128.85	9.6	13.5	89.576	F
3	204.51	204.51	50.03	296.66	0.689	204.47	246.53	2.1	2.2	9.750	A

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	177.77	177.77	64.17	223.84	0.794	195.43	149.32	22.0	4.4	42.531	E
2	114.40	114.40	148.46	148.98	0.768	124.14	111.13	13.5	3.8	44.383	E
3	166.98	166.98	45.61	299.30	0.558	167.88	227.00	2.2	1.3	6.893	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	148.88	148.88	53.62	229.44	0.649	151.34	122.71	4.4	1.9	11.866	B
2	95.80	95.80	114.99	166.38	0.576	98.15	89.97	3.8	1.4	13.614	B
3	139.84	139.84	36.06	305.00	0.458	140.27	177.08	1.3	0.9	5.476	A

2031 + Com , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	47.06	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-8	Arm 1

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	2031 + Com	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/TS)	Scaling Factor (%)
1		ONE HOUR	✓	185.75	100.000
2		ONE HOUR	✓	119.25	100.000
3		ONE HOUR	✓	261.25	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	63.00	122.75
	2	43.50	0.00	75.75
	3	165.00	96.25	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.98	72.66	16.0	F	170.45	1022.68
2	0.81	28.56	3.9	D	109.43	656.56
3	0.94	37.26	11.1	E	239.73	1438.37

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139.84	139.84	71.87	226.46	0.618	138.27	155.61	0.0	1.6	10.037	B
2	89.78	89.78	91.38	183.08	0.490	88.84	118.77	0.0	0.9	9.459	A
3	196.68	196.68	32.41	316.68	0.621	195.08	147.81	0.0	1.6	7.309	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	166.99	166.99	86.06	218.97	0.763	165.56	186.41	1.6	3.0	16.414	C
2	107.20	107.20	109.41	173.71	0.617	106.59	142.21	0.9	1.6	13.286	B
3	234.86	234.86	38.88	312.77	0.751	233.59	177.12	1.6	2.9	11.182	B

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204.51	204.51	103.52	209.75	0.975	195.68	224.61	3.0	11.8	46.996	E
2	131.30	131.30	129.31	163.36	0.804	129.25	169.89	1.6	3.6	24.983	C
3	287.64	287.64	47.15	307.79	0.935	280.99	211.42	2.9	9.5	28.327	D

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	204.51	204.51	105.38	208.77	0.980	200.37	228.42	11.8	16.0	72.660	F
2	131.30	131.30	132.41	161.75	0.812	130.95	173.34	3.6	3.9	28.558	D
3	287.64	287.64	47.77	307.42	0.936	286.03	215.59	9.5	11.1	37.265	E

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	166.99	166.99	89.45	217.17	0.769	179.31	193.24	16.0	3.6	29.515	D
2	107.20	107.20	118.49	168.98	0.634	109.34	150.27	3.9	1.8	15.587	C
3	234.86	234.86	39.89	312.17	0.752	242.80	187.95	11.1	3.2	14.301	B

18:15 - 18:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	139.84	139.84	73.02	225.85	0.619	141.82	158.23	3.6	1.7	10.949	B
2	89.78	89.78	93.72	181.86	0.494	90.59	121.12	1.8	1.0	9.945	A
3	196.68	196.68	33.05	316.29	0.622	198.20	151.26	3.2	1.7	7.717	A

2031 + Com + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	60.92	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-11	Arm 1

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	2031 + Com + Dev	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/TS)	Scaling Factor (%)
1		ONE HOUR	✓	200.50	100.000
2		ONE HOUR	✓	119.75	100.000
3		ONE HOUR	✓	198.00	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	50.50	150.00
	2	55.00	0.00	64.75
	3	123.75	74.00	0.25

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	5	4
	2	4	0	4
	3	4	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	1.03	111.02	28.1	F	183.98	1103.89
2	0.92	57.18	7.8	F	109.88	659.31
3	0.75	12.31	2.9	B	181.69	1090.13

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	150.95	150.95	55.54	228.39	0.661	149.07	133.45	0.0	1.9	11.100	B
2	90.15	90.15	111.71	168.08	0.536	89.03	92.90	0.0	1.1	11.233	B
3	149.06	149.06	40.89	302.12	0.493	148.10	159.85	0.0	1.0	5.808	A

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180.25	180.25	66.56	222.55	0.810	178.28	159.95	1.9	3.8	19.487	C
2	107.65	107.65	133.60	156.70	0.687	106.71	111.24	1.1	2.1	17.665	C
3	178.00	178.00	49.01	297.27	0.599	177.50	191.30	1.0	1.5	7.482	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220.75	220.75	81.24	214.77	1.028	206.22	194.01	3.8	18.4	62.849	F
2	131.85	131.85	154.55	145.82	0.904	127.60	132.91	2.1	6.3	41.989	E
3	218.00	218.00	58.60	291.55	0.748	216.64	223.55	1.5	2.8	11.801	B

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	220.75	220.75	81.72	214.52	1.029	211.06	196.07	18.4	28.1	111.023	F
2	131.85	131.85	158.17	143.94	0.916	130.36	134.60	6.3	7.8	57.181	F
3	218.00	218.00	59.87	290.79	0.750	217.91	228.66	2.8	2.9	12.313	B

08:45 - 09:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	180.25	180.25	67.26	222.18	0.811	203.17	163.76	28.1	5.1	62.162	F
2	107.65	107.65	152.23	147.03	0.732	112.48	118.21	7.8	3.0	28.855	D
3	178.00	178.00	51.66	295.69	0.602	179.37	213.04	2.9	1.5	7.826	A

09:00 - 09:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	150.95	150.95	56.11	228.09	0.662	154.06	135.73	5.1	2.0	12.632	B
2	90.15	90.15	115.45	166.14	0.543	91.91	94.72	3.0	1.2	12.396	B
3	149.06	149.06	42.22	301.33	0.495	149.62	165.15	1.5	1.0	5.953	A

2031 + Com + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Northern Flare	Standard Roundabout		1, 2, 3	72.05	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-12	Arm 1

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
D6	2031 + Com + Dev	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/TS)	Scaling Factor (%)
1		ONE HOUR	✓	193.25	100.000
2		ONE HOUR	✓	128.25	100.000
3		ONE HOUR	✓	269.25	100.000

Origin-Destination Data

Demand (Veh/TS)

		To		
		1	2	3
From	1	0.00	70.50	122.75
	2	47.50	0.00	80.75
	3	165.00	104.25	0.00

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	1.04	120.37	29.7	F	177.33	1063.98
2	0.86	36.66	5.4	E	117.68	706.11
3	0.97	54.17	17.1	F	247.07	1482.41

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	145.49	145.49	77.80	223.38	0.651	143.69	158.50	0.0	1.8	11.059	B
2	96.55	96.55	91.27	183.13	0.527	95.46	130.22	0.0	1.1	10.146	B
3	202.71	202.71	35.36	314.90	0.644	200.94	151.37	0.0	1.8	7.783	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	173.73	173.73	93.11	215.30	0.807	171.76	189.78	1.8	3.8	19.806	C
2	115.29	115.29	109.10	173.87	0.663	114.50	155.77	1.1	1.9	14.957	B
3	242.05	242.05	42.41	310.65	0.779	240.49	181.20	1.8	3.3	12.548	B

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212.77	212.77	110.94	205.88	1.033	197.87	226.82	3.8	18.7	65.830	F
2	141.21	141.21	125.69	165.25	0.855	138.30	183.13	1.9	4.8	30.521	D
3	296.45	296.45	51.22	305.33	0.971	286.54	212.77	3.3	13.2	36.251	E

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	212.77	212.77	113.29	204.64	1.040	201.74	231.38	18.7	29.7	120.371	F
2	141.21	141.21	128.14	163.97	0.861	140.60	186.89	4.8	5.4	36.657	E
3	296.45	296.45	52.07	304.82	0.973	292.60	216.67	13.2	17.1	54.170	F

18:00 - 18:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	173.73	173.73	98.85	212.27	0.818	197.80	200.24	29.7	5.6	74.184	F
2	115.29	115.29	125.64	165.27	0.698	118.23	171.01	5.4	2.4	20.177	C
3	242.05	242.05	43.79	309.81	0.781	255.31	200.09	17.1	3.8	19.880	C

18:15 - 18:30

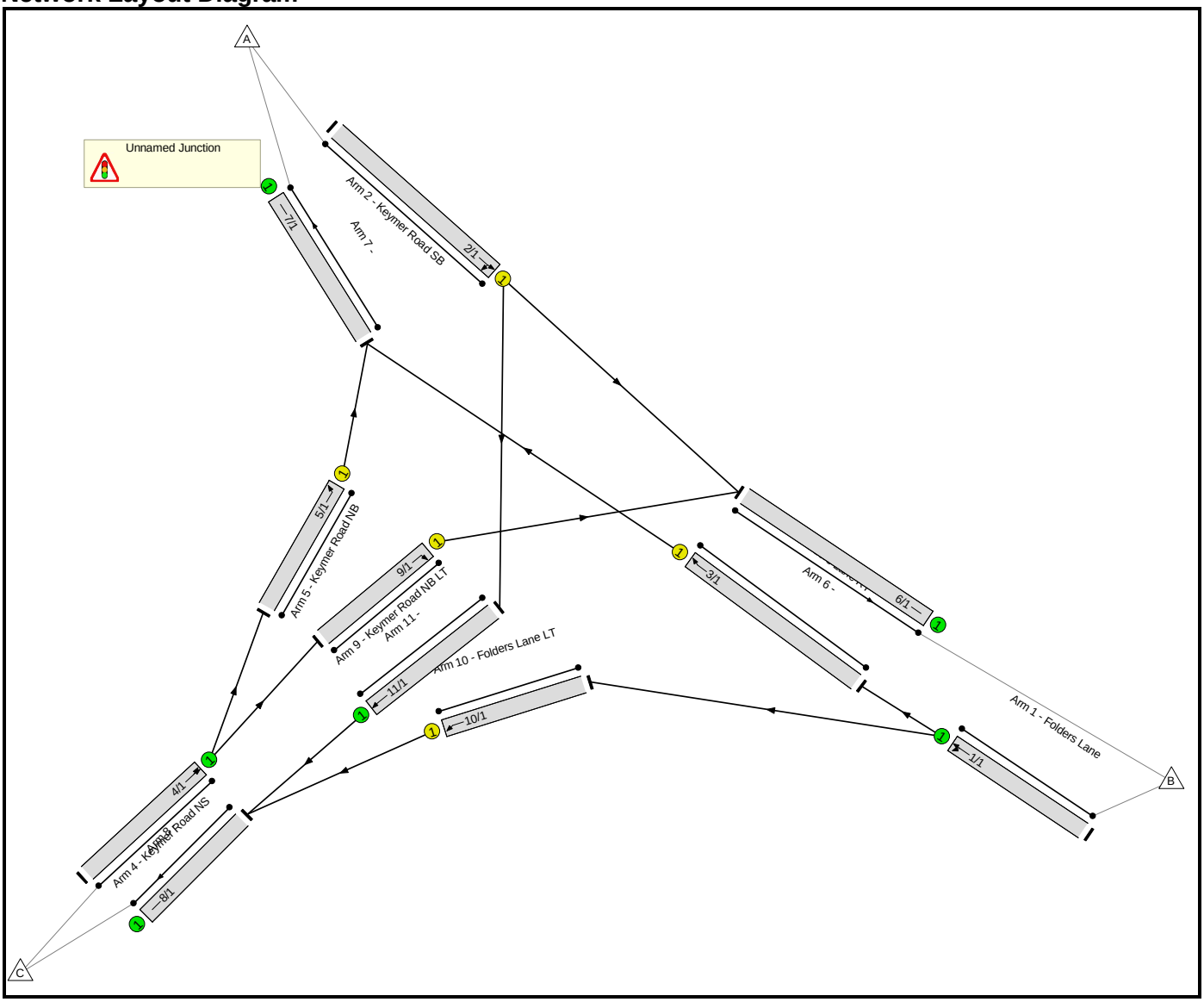
Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	145.49	145.49	79.25	222.62	0.654	149.16	161.67	5.6	2.0	12.818	B
2	96.55	96.55	94.74	181.33	0.532	97.84	133.66	2.4	1.2	10.937	B
3	202.71	202.71	36.24	314.37	0.645	204.68	156.34	3.8	1.9	8.346	A

Full Input Data And Results

User and Project Details

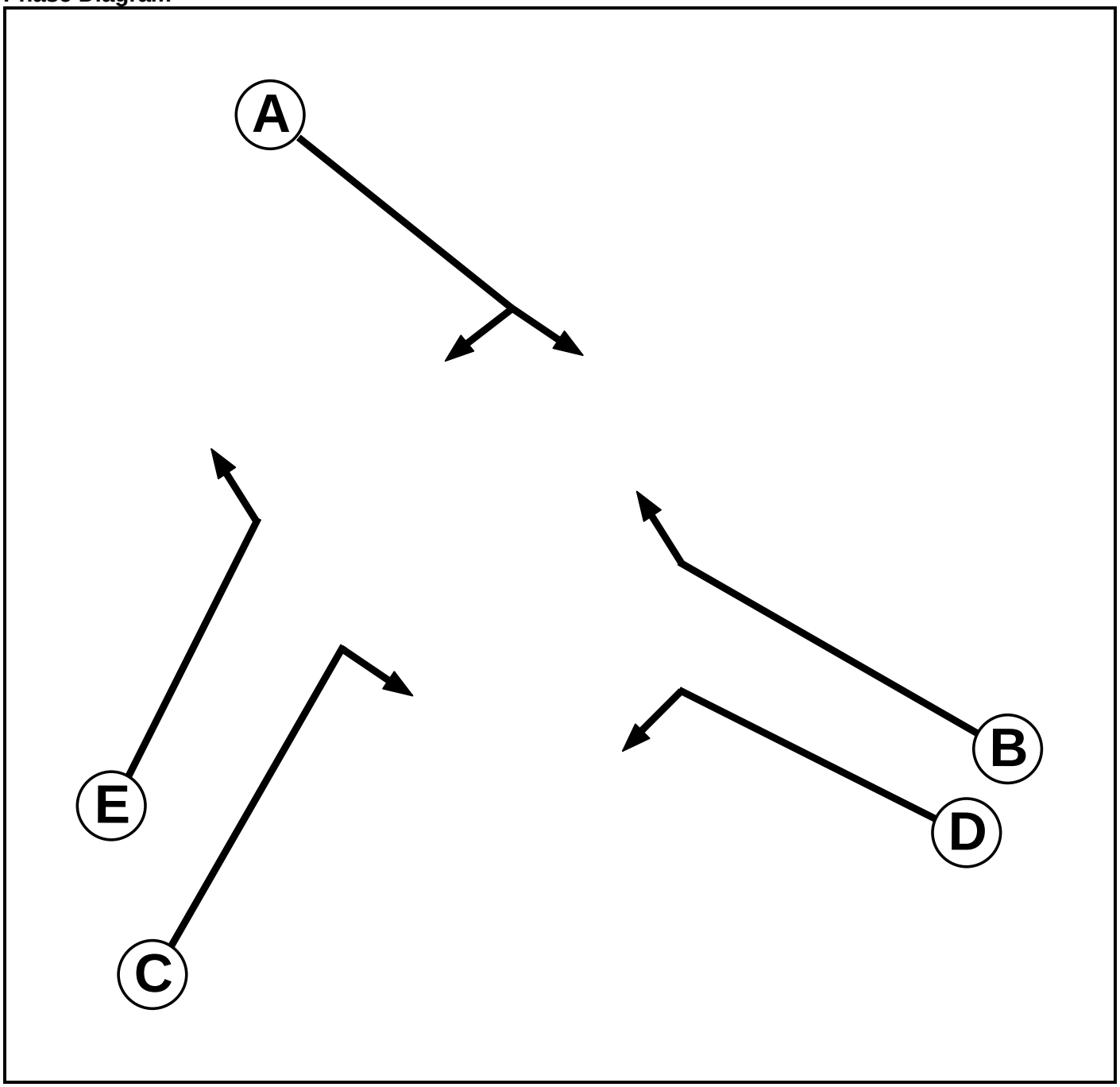
Project:	**Keymer Road, Burgess Hill**
Title:	**Potential Improvement to Keymer Road/Folders Lane junction**
Location:	Burgess Hill
Additional detail:	
File name:	Keymer Road-Folders Lane improvement.lsg3x
Author:	Mark Sheridan
Company:	Odyssey
Address:	Basingstoke

Network Layout Diagram



Full Input Data And Results

Phase Diagram



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	Traffic		7	7

Full Input Data And Results

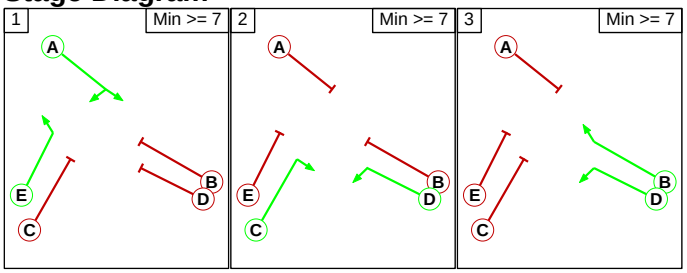
Phase Intergreens Matrix

Terminating Phase	Starting Phase					
		A	B	C	D	E
	A		6	6	6	-
	B	6		6	-	6
	C	6	6		-	6
	D	6	-	-		6
	E	-	6	6	6	

Phases in Stage

Stage No.	Phases in Stage
1	A E
2	C D
3	B D

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

From Stage	To Stage			
		1	2	3
	1		6	6
	2	6		6
	3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Unnamed Junction
There are no Opposed Lanes in this Junction

Full Input Data And Results

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 (Folders Lane)	U		2	3	60.0	Inf	-	-	-	-	-	-
2/1 (Keymer Road SB)	U	A	2	3	60.0	Geom	-	3.65	0.00	Y	Arm 6 Ahead	Inf
											Arm 11 Right	Inf
3/1 (Folders Lane RT)	U	B	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 7 Ahead	Inf
4/1 (Keymer Road NS)	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1 (Keymer Road NB)	U	E	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 7 Left	Inf
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1	U		2	3	60.0	Inf	-	-	-	-	-	-
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
9/1 (Keymer Road NB LT)	U	C	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 6 Right	20.00
10/1 (Folders Lane LT)	U	D	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 8 Ahead	12.00
11/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'Flow Group 1'	08:00	09:00	01:00	
2: 'Copy of Flow Group 1'	08:00	09:00	01:00	

Scenario 1: 'Scenario 1' (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	296	459	755
	B	600	0	202	802
	C	359	220	0	579
	Tot.	959	516	661	2136

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: Scenario 1
Junction: Unnamed Junction	
1/1	802
2/1	755
3/1	600
4/1	579
5/1	359
6/1	516
7/1	959
8/1	661
9/1	220
10/1	202
11/1	459

Lane Saturation Flows

Junction: Unnamed Junction

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Folders Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
2/1 (Keymer Road SB)	3.65	0.00	Y	Arm 6 Ahead	Inf	39.2 %	1980	1980
				Arm 11 Right	Inf	60.8 %		
3/1 (Folders Lane RT)	3.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1915	1915
4/1 (Keymer Road NS Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Keymer Road NB)	3.25	0.00	Y	Arm 7 Left	Inf	100.0 %	1940	1940
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Keymer Road NB LT)	3.25	0.00	Y	Arm 6 Right	20.00	100.0 %	1805	1805
10/1 (Folders Lane LT)	3.25	0.00	Y	Arm 8 Ahead	12.00	100.0 %	1724	1724
11/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 2: 'Copy of Scenario 1' (FG2: 'Copy of Flow Group 1', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination			
		A	B	C	Tot.
Origin	A	0	660	417	1077
	B	491	0	282	773
	C	323	190	0	513
	Tot.	814	850	699	2363

Traffic Lane Flows

Lane	Scenario 2: Copy of Scenario 1
Junction: Unnamed Junction	
1/1	773
2/1	1077
3/1	491
4/1	513
5/1	323
6/1	850
7/1	814
8/1	699
9/1	190
10/1	282
11/1	417

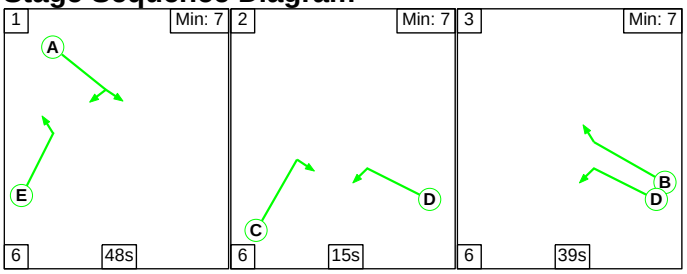
Full Input Data And Results

Lane Saturation Flows

Junction: Unnamed Junction								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
1/1 (Folders Lane Lane 1)	Infinite Saturation Flow						Inf	Inf
2/1 (Keymer Road SB)	3.65	0.00	Y	Arm 6 Ahead	Inf	61.3 %	1980	1980
				Arm 11 Right	Inf	38.7 %		
3/1 (Folders Lane RT)	3.00	0.00	Y	Arm 7 Ahead	Inf	100.0 %	1915	1915
4/1 (Keymer Road NS Lane 1)	Infinite Saturation Flow						Inf	Inf
5/1 (Keymer Road NB)	3.25	0.00	Y	Arm 7 Left	Inf	100.0 %	1940	1940
6/1	Infinite Saturation Flow						Inf	Inf
7/1	Infinite Saturation Flow						Inf	Inf
8/1	Infinite Saturation Flow						Inf	Inf
9/1 (Keymer Road NB LT)	3.25	0.00	Y	Arm 6 Right	20.00	100.0 %	1805	1805
10/1 (Folders Lane LT)	3.25	0.00	Y	Arm 8 Ahead	12.00	100.0 %	1724	1724
11/1	Infinite Saturation Flow						Inf	Inf

Scenario 1: 'Scenario 1' (FG1: 'Flow Group 1', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

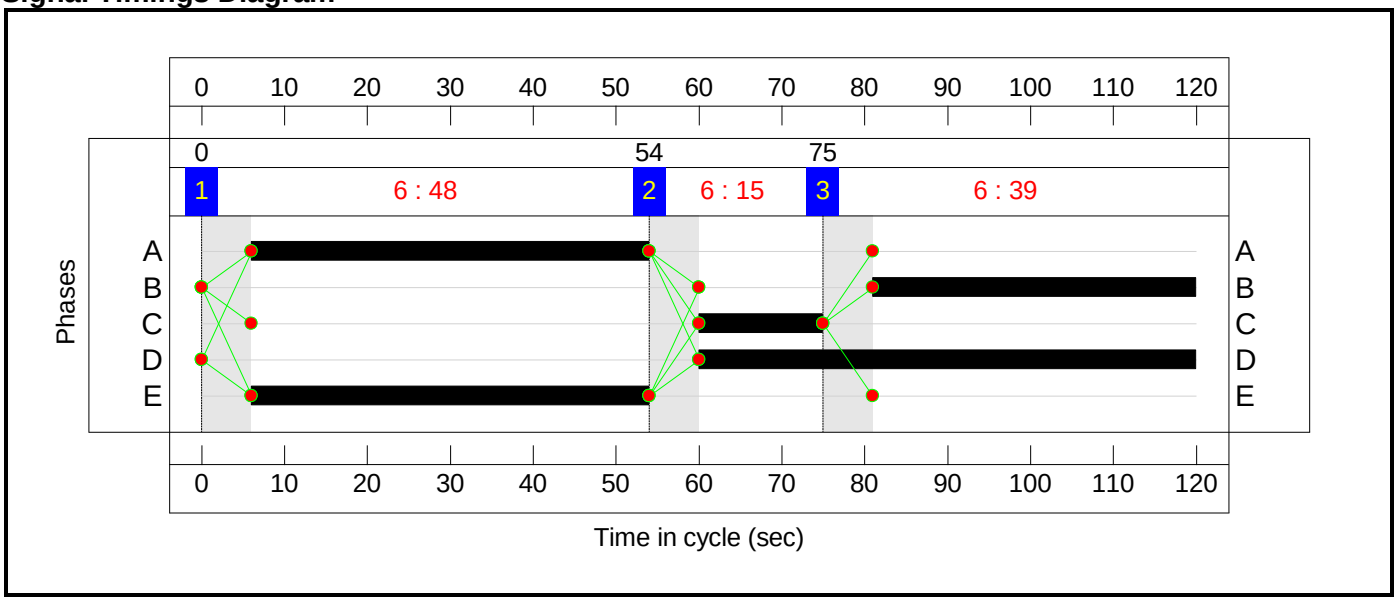


Stage Timings

Stage	1	2	3
Duration	48	15	39
Change Point	0	54	75

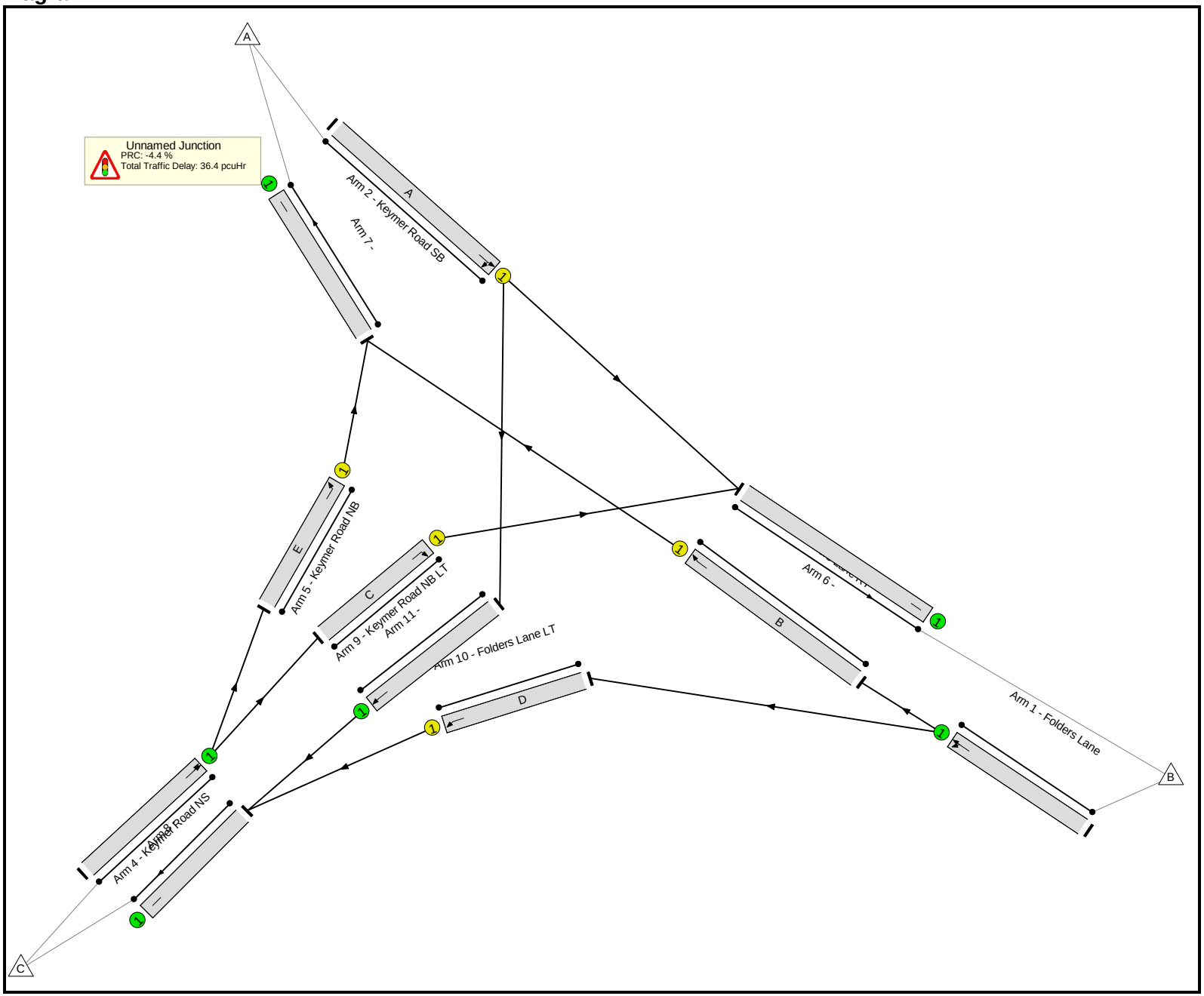
Full Input Data And Results

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	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**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.0%**
Unnamed Junction	**-**	**-**	**N/A**	**-**	**-**		**-**	**-**	**-**	**-**	**-**	**-**	**94.0%**
1/1	Folders Lane Ahead Left	U	N/A	N/A	-		-	-	-	802	Inf	Inf	0.0%
2/1	Keymer Road SB Ahead Right	U	N/A	N/A	A		1	48	-	755	1980	808	93.4%
3/1	Folders Lane RT Ahead	U	N/A	N/A	B		1	39	-	600	1915	638	94.0%
4/1	Keymer Road NS Ahead Ahead2	U	N/A	N/A	-		-	-	-	579	Inf	Inf	0.0%
5/1	Keymer Road NB Left	U	N/A	N/A	E		1	48	-	359	1940	792	45.3%
6/1		U	N/A	N/A	-		-	-	-	516	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	959	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	661	Inf	Inf	0.0%
9/1	Keymer Road NB LT Right	U	N/A	N/A	C		1	15	-	220	1805	241	91.4%
10/1	Folders Lane LT Ahead	U	N/A	N/A	D		1	60	-	202	1724	876	23.0%
11/1	Ahead	U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%

Full Input Data And Results

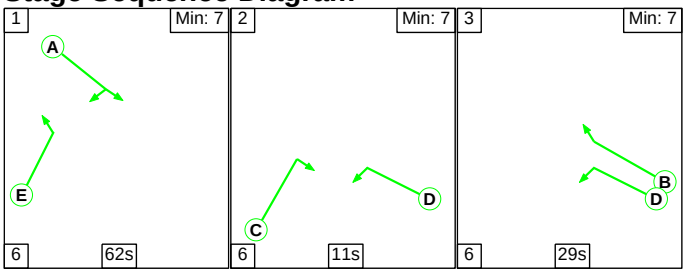
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	**-**	**-**	**0**	**0**	**0**	**20.2**	**16.2**	**0.0**	**36.4**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**20.2**	**16.2**	**0.0**	**36.4**	**-**	**-**	**-**	**-**
1/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	755	755	-	-	-	7.1	5.8	-	12.9	61.6	23.9	5.8	29.7
3/1	600	600	-	-	-	6.5	6.0	-	12.4	74.6	19.3	6.0	25.3
4/1	579	579	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	359	359	-	-	-	2.6	0.4	-	3.0	29.9	8.7	0.4	9.1
6/1	516	516	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	959	959	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	661	661	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	220	220	-	-	-	3.1	3.9	-	7.0	114.7	7.2	3.9	11.1
10/1	202	202	-	-	-	0.9	0.1	-	1.1	19.1	3.7	0.1	3.9
11/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -4.4 Total Delay for Signalled Lanes (pcuHr): 36.42 Cycle Time (s): 120
PRC Over All Lanes (%): -4.4 Total Delay Over All Lanes(pcuHr): 36.42

Full Input Data And Results

Scenario 2: 'Copy of Scenario 1' (FG2: 'Copy of Flow Group 1', Plan 1: 'Network Control Plan 1')

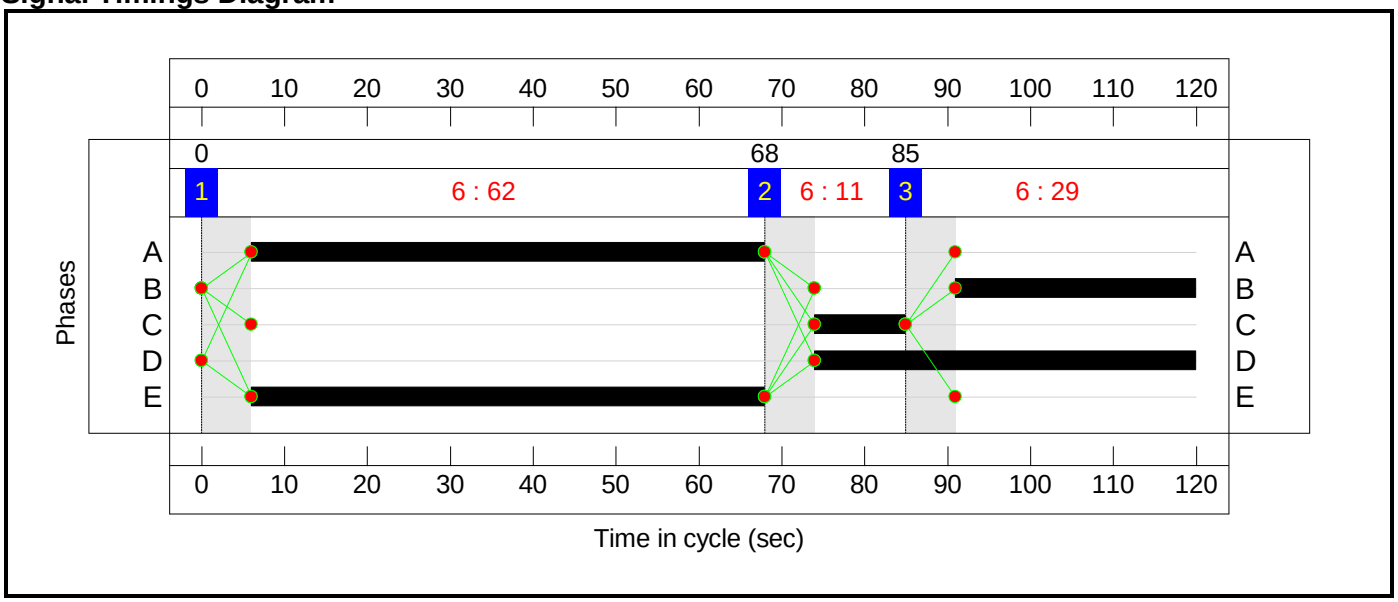
Stage Sequence Diagram



Stage Timings

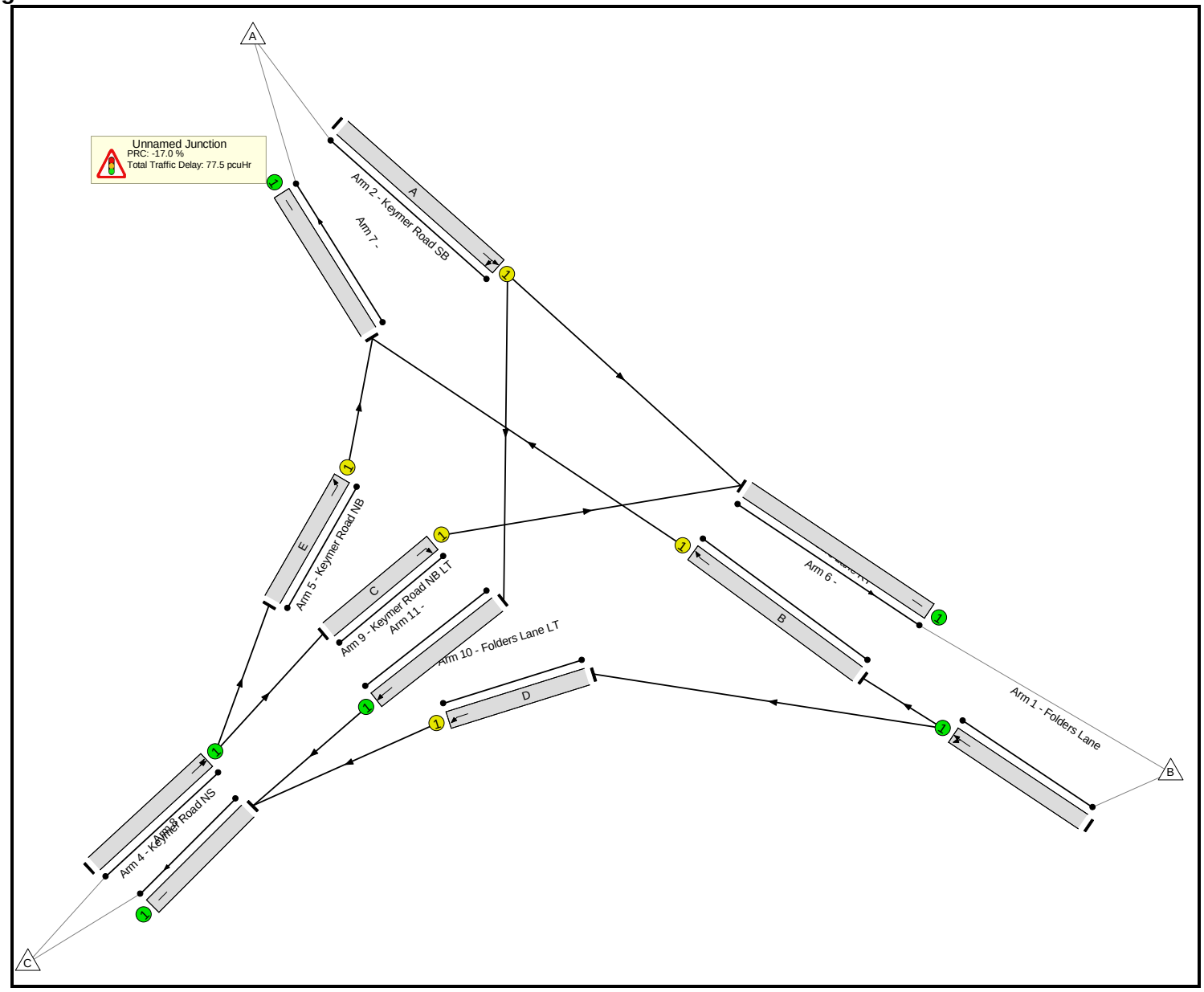
Stage	1	2	3
Duration	62	11	29
Change Point	0	68	85

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	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**	-	-		-	-	-	-	-	-	**105.3%**
Unnamed Junction	-	-	**N/A**	-	-		-	-	-	-	-	-	**105.3%**
1/1	Folders Lane Ahead Left	U	N/A	N/A	-		-	-	-	773	Inf	Inf	0.0%
2/1	Keymer Road SB Ahead Right	U	N/A	N/A	A		1	62	-	1077	1980	1040	103.6%
3/1	Folders Lane RT Ahead	U	N/A	N/A	B		1	29	-	491	1915	479	102.6%
4/1	Keymer Road NS Ahead Ahead2	U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
5/1	Keymer Road NB Left	U	N/A	N/A	E		1	62	-	323	1940	1019	31.7%
6/1		U	N/A	N/A	-		-	-	-	850	Inf	Inf	0.0%
7/1		U	N/A	N/A	-		-	-	-	814	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	699	Inf	Inf	0.0%
9/1	Keymer Road NB LT Right	U	N/A	N/A	C		1	11	-	190	1805	181	105.3%
10/1	Folders Lane LT Ahead	U	N/A	N/A	D		1	46	-	282	1724	675	41.8%
11/1	Ahead	U	N/A	N/A	-		-	-	-	417	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	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**	**24.4**	**53.1**	**0.0**	**77.5**	**-**	**-**	**-**	**-**
Unnamed Junction	**-**	**-**	**0**	**0**	**0**	**24.4**	**53.1**	**0.0**	**77.5**	**-**	**-**	**-**	**-**
1/1	773	773	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
2/1	1077	1040	-	-	-	10.6	28.3	-	38.9	130.0	37.2	28.3	65.4
3/1	491	479	-	-	-	7.0	14.6	-	21.6	158.0	16.8	14.6	31.3
4/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	323	323	-	-	-	1.5	0.2	-	1.7	18.8	6.1	0.2	6.3
6/1	818	818	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	802	802	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	684	684	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	190	181	-	-	-	3.3	9.7	-	12.9	245.0	6.7	9.7	16.3
10/1	282	282	-	-	-	2.1	0.4	-	2.4	31.1	6.8	0.4	7.2
11/1	402	402	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

C1 PRC for Signalled Lanes (%): -17.0 Total Delay for Signalled Lanes (pcuHr): 77.51 Cycle Time (s): 120
PRC Over All Lanes (%): -17.0 Total Delay Over All Lanes(pcuHr): 77.51

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: Silverdale Rd + Keymer Rd + Station Rd + Junction Rd Roundabout.j9
Path: P:\14-205 - Land at Keymer Road, Burgess Hill\Trans\Arcady
Report generation date: 05/10/2020 10:40:09

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2031											
Arm 1	D1	0.5	10.50	0.32	B	29 % [Arm 2]	D2	0.3	9.66	0.24	A	14 % [Arm 3]
Arm 2		2.3	10.61	0.70	B			1.4	7.27	0.59	A	
Arm 3		1.7	7.88	0.64	A			5.4	16.94	0.86	C	
Arm 4		1.5	10.94	0.60	B			0.7	8.40	0.43	A	
	2031 + Com											
Arm 1	D3	0.6	13.38	0.38	B	4 % [Arm 2]	D4	0.4	13.92	0.31	B	-7 % [Arm 3]
Arm 2		7.9	25.86	0.92	D			2.5	10.42	0.72	B	
Arm 3		2.8	10.94	0.75	B			30.1	55.28	1.06	F	
Arm 4		2.6	16.61	0.74	C			2.1	15.72	0.69	C	
	2031 + Com + Dev											
Arm 1	D5	0.6	13.68	0.38	B	2 % [Arm 2]	D6	0.5	14.30	0.32	B	-9 % [Arm 3]
Arm 2		10.5	31.27	0.95	D			2.7	10.97	0.74	B	
Arm 3		2.9	11.30	0.76	B			35.8	62.93	1.09	F	
Arm 4		2.7	17.24	0.75	C			2.2	16.34	0.70	C	

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	05/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ODYSSEY-CE\escottholt
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	perTimeSegment	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 period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Analysis Set Details

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

2031, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	9.68	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	29	Arm 2

Arms

Arms

Arm	Name	Description
1	Silverdale Road	
2	Keymer Road	
3	Station Road	
4	untitled	

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	3.90	4.00	5.0	5.0	24.0	51.5	
2	3.55	4.30	6.0	275.0	24.0	4.0	
3	3.70	5.80	11.0	15.0	24.0	55.0	
4	3.30	5.00	5.0	40.0	24.0	42.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/TS)
1	0.437	235.590
2	0.644	351.449
3	0.560	339.965
4	0.559	306.292

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 period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	8.25	28.00	2.75
	2	8.00	0.75	161.25	21.50
	3	29.25	133.00	4.25	30.00
	4	10.50	35.50	74.25	1.00

08:00 - 08:15

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	3	5
	3	0	5	0	6
	4	0	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.32	10.50	0.5	B	9.75	39.00
2	0.70	10.61	2.3	B	47.88	191.50
3	0.64	7.88	1.7	A	49.13	196.50
4	0.60	10.94	1.5	B	30.31	121.25

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	39.00	39.00	246.18	123.80	0.315	38.55	47.27	0.0	0.5	10.503	B
2	191.50	191.50	108.94	271.93	0.704	189.21	175.79	0.0	2.3	10.608	B
3	196.50	196.50	33.59	307.33	0.639	194.77	264.56	0.0	1.7	7.880	A
4	121.25	121.25	173.68	200.65	0.604	119.77	54.68	0.0	1.5	10.937	B

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	2.57	234.42	0.000	0.45	0.48	0.5	0.0	0.000	A
2	0.00	0.00	1.31	340.09	0.000	2.29	1.71	2.3	0.0	0.000	A
3	0.00	0.00	0.41	325.72	0.000	1.73	3.20	1.7	0.0	0.000	A
4	0.00	0.00	1.57	298.23	0.000	1.48	0.57	1.5	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

2031, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	12.25	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	14	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.50	7.00	19.50	2.00
	2	7.75	0.75	137.50	29.75
	3	18.50	179.50	7.00	64.00
	4	3.75	28.00	45.50	1.50

17:15 - 17:30

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	2	2
	3	1	1	0	2
	4	7	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.24	9.66	0.3	A	7.25	29.00
2	0.59	7.27	1.4	A	43.94	175.75
3	0.86	16.94	5.4	C	67.25	269.00
4	0.43	8.40	0.7	A	19.69	78.75

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29.00	29.00	257.80	121.57	0.239	28.69	30.03	0.0	0.3	9.659	A
2	175.75	175.75	75.19	296.78	0.592	174.33	211.30	0.0	1.4	7.269	A
3	269.00	269.00	41.90	312.37	0.861	263.60	207.61	0.0	5.4	16.939	C
4	78.75	78.75	209.81	184.46	0.427	78.02	95.69	0.0	0.7	8.400	A

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	4.45	233.62	0.000	0.31	0.47	0.3	0.0	0.000	A
2	0.00	0.00	0.81	344.37	0.000	1.42	3.95	1.4	0.0	0.000	A
3	0.00	0.00	0.35	335.70	0.000	5.40	1.89	5.4	0.0	0.000	A
4	0.00	0.00	4.19	298.42	0.000	0.73	1.56	0.7	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

2031 + Com, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	17.87	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	4	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	8.75	28.25	2.75
	2	8.50	0.75	205.50	27.75
	3	29.00	158.00	4.25	35.50
	4	10.50	39.00	87.00	1.00

08:00 - 08:15

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

08:15 - 08:30

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

08:30 - 08:45

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	3	5
	3	0	5	0	6
	4	0	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.38	13.38	0.6	B	9.94	39.75
2	0.92	25.86	7.9	D	60.63	242.50
3	0.75	10.94	2.8	B	56.69	226.75
4	0.74	16.61	2.6	C	34.38	137.50

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	39.75	39.75	285.56	105.88	0.375	39.16	47.16	0.0	0.6	13.377	B
2	242.50	242.50	121.08	264.12	0.918	234.57	203.65	0.0	7.9	25.861	D
3	226.75	226.75	39.48	303.66	0.747	223.94	316.16	0.0	2.8	10.937	B
4	137.50	137.50	197.83	186.80	0.736	134.90	65.59	0.0	2.6	16.609	C

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	4.44	233.58	0.000	0.59	0.84	0.6	0.0	0.000	A
2	0.00	0.00	2.17	339.46	0.000	7.94	2.85	7.9	0.0	0.000	A
3	0.00	0.00	1.27	324.86	0.000	2.81	8.84	2.8	0.0	0.000	A
4	0.00	0.00	2.67	297.60	0.000	2.60	1.41	2.6	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

2031 + Com, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	33.01	D

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-7	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.50	7.00	19.75	2.00
	2	7.75	0.75	168.75	33.50
	3	19.00	225.25	7.00	79.25
	4	3.75	57.75	53.25	1.50

17:15 - 17:30

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

17:30 - 17:45

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

17:45 - 18:00

Demand (Veh/TS)

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	2	2
	3	1	1	0	2
	4	7	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.31	13.92	0.4	B	7.31	29.25
2	0.72	10.42	2.5	B	52.69	210.75
3	1.06	55.28	30.1	F	82.62	330.50
4	0.69	15.72	2.1	C	29.06	116.25

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29.25	29.25	322.33	93.03	0.314	28.80	29.10	0.0	0.4	13.919	B
2	210.75	210.75	82.05	292.31	0.721	208.27	269.08	0.0	2.5	10.424	B
3	330.50	330.50	45.44	310.35	1.065	300.38	244.88	0.0	30.1	55.280	F
4	116.25	116.25	237.24	169.57	0.686	114.19	108.58	0.0	2.1	15.721	C

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	23.17	225.36	0.000	0.45	1.90	0.4	0.0	0.000	A
2	0.00	0.00	1.95	343.59	0.000	2.48	21.67	2.5	0.0	0.000	A
3	0.00	0.00	0.56	335.56	0.000	30.12	3.87	30.1	0.0	0.000	A
4	0.00	0.00	23.01	288.57	0.000	2.06	7.67	2.1	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

2031 + Com + Dev, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	20.30	C

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	2	Arm 2

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0.00	9.00	28.25	2.75
	2	9.00	0.75	213.25	28.75
	3	29.00	160.25	4.25	35.50
	4	10.50	39.75	87.00	1.00

Demand (Veh/TS)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

08:15 - 08:30

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

08:30 - 08:45

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	3	5
	3	0	5	0	6
	4	0	4	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.38	13.68	0.6	B	10.00	40.00
2	0.95	31.27	10.5	D	62.94	251.75
3	0.76	11.30	2.9	B	57.25	229.00
4	0.75	17.24	2.7	C	34.56	138.25

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	40.00	40.00	288.35	104.61	0.382	39.40	47.55	0.0	0.6	13.681	B
2	251.75	251.75	121.00	264.18	0.953	241.24	206.74	0.0	10.5	31.266	D
3	229.00	229.00	40.58	303.04	0.756	226.06	321.65	0.0	2.9	11.300	B
4	138.25	138.25	200.36	185.34	0.746	135.53	66.28	0.0	2.7	17.244	C

08:00 - 08:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	4.66	233.48	0.000	0.60	0.95	0.6	0.0	0.000	A
2	0.00	0.00	2.25	339.41	0.000	10.51	3.00	10.5	0.0	0.000	A
3	0.00	0.00	1.67	324.62	0.000	2.94	11.10	2.9	0.0	0.000	A
4	0.00	0.00	2.89	297.45	0.000	2.72	1.72	2.7	0.0	0.000	A

08:15 - 08:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

08:30 - 08:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	344.71	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	331.11	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	301.85	0.000	0.00	0.00	0.0	0.0	0.000	A

2031 + Com + Dev, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	37.00	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-9	Arm 3

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/TS)

17:00 - 17:15

		To			
		1	2	3	4
From	1	0.50	7.25	19.75	2.00
	2	8.00	0.75	172.50	34.25
	3	19.00	232.00	7.00	79.25
	4	3.75	58.75	53.25	1.50

Demand (Veh/TS)

17:15 - 17:30

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Demand (Veh/TS)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0.00	0.00	0.00	0.00
	2	0.00	0.00	0.00	0.00
	3	0.00	0.00	0.00	0.00
	4	0.00	0.00	0.00	0.00

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	2	2
	3	1	1	0	2
	4	7	1	2	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/TS)	Total Junction Arrivals (Veh)
1	0.32	14.30	0.5	B	7.38	29.50
2	0.74	10.97	2.7	B	53.87	215.50
3	1.09	62.93	35.8	F	84.31	337.25
4	0.70	16.34	2.2	C	29.31	117.25

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	29.50	29.50	325.75	91.52	0.322	29.04	29.05	0.0	0.5	14.304	B
2	215.50	215.50	81.89	292.41	0.737	212.83	272.89	0.0	2.7	10.970	B
3	337.25	337.25	46.40	309.83	1.089	301.42	248.32	0.0	35.8	62.928	F
4	117.25	117.25	239.72	168.21	0.697	115.08	108.10	0.0	2.2	16.343	C

17:15 - 17:30

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	27.50	223.44	0.000	0.46	2.20	0.5	0.0	0.000	A
2	0.00	0.00	2.11	343.49	0.000	2.67	25.86	2.7	0.0	0.000	A
3	0.00	0.00	0.60	335.55	0.000	35.83	4.18	35.8	0.0	0.000	A
4	0.00	0.00	27.53	286.07	0.000	2.17	8.90	2.2	0.0	0.000	A

17:30 - 17:45

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

17:45 - 18:00

Arm	Total Demand (Veh/TS)	Junction Arrivals (Veh)	Circulating flow (Veh/TS)	Capacity (Veh/TS)	RFC	Throughput (Veh/TS)	Throughput (exit side) (Veh/TS)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
1	0.00	0.00	0.00	235.59	0.000	0.00	0.00	0.0	0.0	0.000	A
2	0.00	0.00	0.00	348.00	0.000	0.00	0.00	0.0	0.0	0.000	A
3	0.00	0.00	0.00	336.62	0.000	0.00	0.00	0.0	0.0	0.000	A
4	0.00	0.00	0.00	299.02	0.000	0.00	0.00	0.0	0.0	0.000	A

Junctions 9

ARCADY 9 - Roundabout Module

Version: 9.5.1.7462

Filename: Mill Rd + Station Rr + Church Rd Mini Roundabout.j9
Path: P:\14-205 - Land at Keymer Road, Burgess Hill\Trans\Arcady
Report generation date: 05/10/2020 09:46:58

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2031											
Arm 1	D1	2.1	20.27	0.70	C	15 % [Arm 1]	D2	2.3	23.98	0.72	C	9 % [Arm 1]
Arm 2		1.5	6.14	0.61	A			0.7	4.13	0.43	A	
Arm 3		0.9	5.77	0.49	A			1.5	7.19	0.60	A	
Arm 4		0.0	0.00	0.00	A			0.0	0.00	0.00	A	
	2031 + Com											
Arm 1	D3	12.2	64.29	1.02	F	-10 % [Arm 1]	D4	26.5	128.31	1.23	F	-19 % [Arm 1]
Arm 2		3.5	10.90	0.79	B			1.2	5.20	0.54	A	
Arm 3		1.6	7.88	0.62	A			4.5	15.40	0.83	C	
Arm 4		0.0	0.00	0.00	A			0.0	0.00	0.00	A	
	2031 + Com + Dev											
Arm 1	D5	13.1	67.62	1.03	F	-11 % [Arm 1]	D6	30.0	142.13	1.28	F	-21 % [Arm 1]
Arm 2		4.0	11.87	0.81	B			1.2	5.30	0.55	A	
Arm 3		1.6	8.05	0.63	A			5.0	16.74	0.85	C	
Arm 4		0.0	0.00	0.00	A			0.0	0.00	0.00	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	05/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ODYSSEY-CE\escottholt
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	mph	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	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)
JUNCTIONS 9	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 period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Analysis Set Details

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

2031, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 80% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	8.79	A

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		15	Arm 1

Arms

Arms

Arm	Name	Description
1	Mill Road	
2	Station Road (East)	
3	Station Road (West)	
4	Church Road	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	2.75	2.22	4.01	4.3	9.72	5.85	0.0	✓
2	5.20	5.20	7.68	45.0	14.22	13.12	0.0	✓
3	3.59	3.59	6.69	27.7	8.64	2.06	0.0	✓
4	6.19	5.27	8.09	7.0	12.31	5.51	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.479	789
2	0.652	1612
3	0.588	1335
4	0.723	1356

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 period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	216	153	0
	2	0	1	754	150
	3	0	515	0	71
	4	0	0	0	0

08:00 - 08:15

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:15 - 08:30

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:30 - 08:45

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	2	4
	3	0	3	0	6
	4	0	0	0	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	0.70	20.27	2.1	C	92	92
2	0.61	6.14	1.5	A	226	226
3	0.49	5.77	0.9	A	147	147
4	0.00	0.00	0.0	A	0	0

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	369	92	513	531	0.695	361	0	0.0	2.1	20.274	C
2	905	226	149	1479	0.612	899	724	0.0	1.5	6.140	A
3	586	147	150	1202	0.487	582	898	0.0	0.9	5.771	A
4	0	0	513	974	0.000	0	220	0.0	0.0	0.000	A

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	0	0	3	779	0.000	8	0	2.1	0.0	0.000	A
2	0	0	4	1573	0.000	6	8	1.5	0.0	0.000	A
3	0	0	1	1290	0.000	4	9	0.9	0.0	0.000	A
4	0	0	3	1354	0.000	0	1	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

2031, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 80% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	9.34	A

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		9	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

17:00 - 17:15

		To			
		1	2	3	4
From	1	0	238	104	0
	2	0	4	498	150
	3	0	644	3	97
	4	0	0	0	0

Demand (Veh/hr)

17:15 - 17:30

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	1	4
	3	0	0	0	5
	4	0	0	0	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	0.72	23.98	2.3	C	86	86
2	0.43	4.13	0.7	A	163	163
3	0.60	7.19	1.5	A	186	186
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

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	342	86	646	475	0.720	333	0	0.0	2.3	23.983	C
2	652	163	104	1518	0.430	649	874	0.0	0.7	4.129	A
3	744	186	153	1233	0.604	738	600	0.0	1.5	7.194	A
4	0	0	646	889	0.000	0	246	0.0	0.0	0.000	A

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	0	0	5	779	0.000	9	0	2.3	0.0	0.000	A
2	0	0	3	1583	0.000	3	12	0.7	0.0	0.000	A
3	0	0	0.71	1325	0.000	6	5	1.5	0.0	0.000	A
4	0	0	5	1352	0.000	0	1	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

2031 + Com, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 69% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 78% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	21.37	C

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-10	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0	278	234	0
	2	0	1	919	215
	3	0	577	0	141
	4	0	0	0	0

Demand (Veh/hr)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:15 - 08:30

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:30 - 08:45

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	2	4
	3	0	3	0	6
	4	0	0	0	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	1.02	64.29	12.2	F	128	128
2	0.79	10.90	3.5	B	284	284
3	0.62	7.88	1.6	A	180	180
4	0.00	0.00	0.0	A	0	0

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	512	128	573	501	1.021	463	0	0.0	12.2	64.285	F
2	1135	284	212	1438	0.789	1121	824	0.0	3.5	10.903	B
3	718	180	213	1162	0.618	712	1119	0.0	1.6	7.883	A
4	0	0	573	929	0.000	0	352	0.0	0.0	0.000	A

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	0	0	5	778	0.000	49	0	12.2	0.0	0.000	A
2	0	0	22	1560	0.000	14	32	3.5	0.0	0.000	A
3	0	0	3	1287	0.000	6	34	1.6	0.0	0.000	A
4	0	0	5	1352	0.000	0	4	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

2031 + Com, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 78% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	35.80	E

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-19	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

17:00 - 17:15

		To			
		1	2	3	4
From	1	0	313	176	0
	2	0	4	599	207
	3	0	817	3	175
	4	0	0	0	0

Demand (Veh/hr)

17:15 - 17:30

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	1	4
	3	0	0	0	5
	4	0	0	0	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	1.23	128.31	26.5	F	122	122
2	0.54	5.20	1.2	A	202	202
3	0.83	15.40	4.5	C	249	249
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

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	489	122	809	397	1.231	383	0	0.0	26.5	128.310	F
2	810	202	141	1493	0.543	805	1051	0.0	1.2	5.200	A
3	995	249	210	1196	0.832	977	736	0.0	4.5	15.404	C
4	0	0	809	771	0.000	0	378	0.0	0.0	0.000	A

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	0	0	15	774	0.000	106	0	26.5	0.0	0.000	A
2	0	0	38	1559	0.000	5	83	1.2	0.0	0.000	A
3	0	0	1	1322	0.000	18	42	4.5	0.0	0.000	A
4	0	0	15	1345	0.000	0	4	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

2031 + Com + Dev, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 1 and 2 have 69% of the total flow for the roundabout for one or more time segments][Arms 2 and 3 have 78% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	22.47	C

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-11	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

07:45 - 08:00

		To			
		1	2	3	4
From	1	0	281	234	0
	2	0	1	945	220
	3	0	584	0	141
	4	0	0	0	0

Demand (Veh/hr)

08:00 - 08:15

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:15 - 08:30

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

08:30 - 08:45

Demand (Veh/hr)

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	2	4
	3	0	3	0	6
	4	0	0	0	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	1.03	67.62	13.1	F	129	129
2	0.81	11.87	4.0	B	291	291
3	0.63	8.05	1.6	A	181	181
4	0.00	0.00	0.0	A	0	0

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	515	129	580	498	1.034	463	0	0.0	13.1	67.617	F
2	1166	291	210	1439	0.810	1150	832	0.0	4.0	11.870	B
3	725	181	218	1160	0.625	718	1142	0.0	1.6	8.047	A
4	0	0	580	924	0.000	0	357	0.0	0.0	0.000	A

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	0	0	5	778	0.000	52	0	13.1	0.0	0.000	A
2	0	0	24	1559	0.000	16	34	4.0	0.0	0.000	A
3	0	0	3	1287	0.000	7	37	1.6	0.0	0.000	A
4	0	0	5	1352	0.000	0	4	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1589	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1306	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

2031 + Com + Dev, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Mini-roundabout		Mini-roundabout appears to have unbalanced flows and may behave like a priority junction; treat results with caution. See User Guide for details.[Arms 2 and 3 have 78% of the total flow for the roundabout for one or more time segments]

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3, 4	39.23	E

Junction Network Options

Driving side	Lighting	Road surface	In London	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	Normal/unknown		-21	Arm 1

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
1		DIRECT	✓	100.000
2		DIRECT	✓	100.000
3		DIRECT	✓	100.000
4		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

17:00 - 17:15

		To			
		1	2	3	4
From	1	0	320	176	0
	2	0	4	611	211
	3	0	837	3	175
	4	0	0	0	0

Demand (Veh/hr)

17:15 - 17:30

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:30 - 17:45

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To			
		1	2	3	4
From	1	0	0	0	0
	2	0	0	0	0
	3	0	0	0	0
	4	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1	2	3	4
From	1	0	1	1	0
	2	0	0	1	4
	3	0	0	0	5
	4	0	0	0	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	1.28	142.13	30.0	F	124	124
2	0.55	5.30	1.2	A	206	206
3	0.85	16.74	5.0	C	254	254
4	0.00	0.00	0.0	A	0	0

Main Results for each time segment

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	496	124	827	389	1.276	376	0	0.0	30.0	142.133	F
2	826	206	136	1496	0.552	821	1067	0.0	1.2	5.298	A
3	1015	254	214	1194	0.850	995	744	0.0	5.0	16.744	C
4	0	0	827	758	0.000	0	381	0.0	0.0	0.000	A

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	0	0	17	773	0.000	120	0	30.0	0.0	0.000	A
2	0	0	43	1557	0.000	5	94	1.2	0.0	0.000	A
3	0	0	1	1322	0.000	20	46	5.0	0.0	0.000	A
4	0	0	17	1344	0.000	0	5	0.0	0.0	0.000	A

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

17:45 - 18:00

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	0	0	0	785	0.000	0	0	0.0	0.0	0.000	A
2	0	0	0	1593	0.000	0	0	0.0	0.0	0.000	A
3	0	0	0	1319	0.000	0	0	0.0	0.0	0.000	A
4	0	0	0	1356	0.000	0	0	0.0	0.0	0.000	A

Junctions 9

PICADY 9 - Priority Intersection Module

Version: 9.5.1.7462

For sales and distribution information, program advice and maintenance, contact TRL:
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Filename: Priorty Junction B2112 Keymer Rd + Oclkey Ln (without flare).j9
Path: P:\14-205 - Land at Keymer Road, Burgess Hill\Trans\Picady
Report generation date: 08/10/2020 10:57:23

Summary of junction performance

	AM						PM					
	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (Veh)	Delay (s)	RFC	LOS	Network Residual Capacity
	2031											
Stream B-AC	D1	3.5	28.53	0.81	D	6 %	D2	1.7	17.93	0.64	C	23 %
Stream C-AB		0.3	6.43	0.19	A	[Stream B-AC]		1.2	10.48	0.51	B	[Stream B-AC]
	2031 + Com											
Stream B-AC	D3	21.2	92.77	1.12	F	-18 %	D4	4.4	33.86	0.85	D	1 %
Stream C-AB		0.7	8.01	0.35	A	[Stream B-AC]		2.8	17.21	0.72	C	[Stream B-AC]
	2031 + Com + Dev											
Stream B-AC	D5	31.4	124.36	1.22	F	-23 %	D6	6.0	41.89	0.91	E	-4 %
Stream C-AB		0.7	8.20	0.36	A	[Stream B-AC]		3.6	20.17	0.77	C	[Stream B-AC]

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	05/10/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ODYSSEY-CE\escottholt
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

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 period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Analysis Set Details

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

2031, 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		11.78	B

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	6	Stream B-AC

Arms

Arms

Arm	Name	Description	Arm type
A	B2116 Keymer Road (West)		Major
B	Ockley Lane		Minor
C	B2116 Keymer Road (East)		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	6.00			115.0	✓	0.00

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	One lane	4.16	88	34

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	584	0.106	0.269	0.169	0.384
B-C	720	0.110	0.279	-	-
C-B	641	0.248	0.248	-	-

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	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D1	2031	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	100	247
	B	169	0	254
	C	234	87	0

08:00 - 08:15

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

08:15 - 08:30

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

08:30 - 08:45

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	2
	B	3	0	1
	C	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.81	28.53	3.5	D	106	106
C-AB	0.19	6.43	0.3	A	33	33
C-A					47	47
A-B					25	25
A-C					62	62

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	423	106	524	0.807	409	0.0	3.5	28.527	D
C-AB	132	33	690	0.191	130	0.0	0.3	6.430	A
C-A	189	47			189				
A-B	100	25			100				
A-C	247	62			247				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	646	0.000	14	3.5	0.0	0.000	A
C-AB	0	0	614	0.000	1	0.3	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

2031, 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		9.01	A

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	23	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D2	2031	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	118	188
	B	116	0	225
	C	184	256	0

17:15 - 17:30

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

17:30 - 17:45

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	1
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.64	17.93	1.7	C	85	85
C-AB	0.51	10.48	1.2	B	87	87
C-A					23	23
A-B					30	30
A-C					47	47

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	341	85	529	0.645	334	0.0	1.7	17.931	C
C-AB	350	87	685	0.511	345	0.0	1.2	10.481	B
C-A	90	23			90				
A-B	118	30			118				
A-C	188	47			188				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	662	0.000	7	1.7	0.0	0.000	A
C-AB	0	0	637	0.000	5	1.2	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

2031 + Com, 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		40.18	E

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-18	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D3	2031 + Com	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

07:45 - 08:00

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	141	254
	B	208	0	363
	C	236	154	0

08:00 - 08:15

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

08:15 - 08:30

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

08:30 - 08:45

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	2
	B	3	0	1
	C	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.12	92.77	21.2	F	143	143
C-AB	0.35	8.01	0.7	A	59	59
C-A					39	39
A-B					35	35
A-C					64	64

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	571	143	509	1.122	486	0.0	21.2	92.768	F
C-AB	236	59	681	0.346	233	0.0	0.7	8.010	A
C-A	154	39			154				
A-B	141	35			141				
A-C	254	64			254				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	651	0.000	85	21.2	0.0	0.000	A
C-AB	0	0	615	0.000	3	0.7	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

2031 + Com, 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		17.67	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D4	2031 + Com	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	140	191
	B	134	0	299
	C	192	356	0

17:15 - 17:30

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

17:30 - 17:45

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	1
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.85	33.86	4.4	D	108	108
C-AB	0.72	17.21	2.8	C	124	124
C-A					13	13
A-B					35	35
A-C					48	48

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	433	108	509	0.851	415	0.0	4.4	33.861	D
C-AB	495	124	685	0.721	483	0.0	2.8	17.209	C
C-A	53	13			53				
A-B	140	35			140				
A-C	191	48			191				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	666	0.000	18	4.4	0.0	0.000	A
C-AB	0	0	638	0.000	11	2.8	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

2031 + Com + Dev, 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		55.26	F

Junction Network Options

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold
Left	Normal/unknown	-23	Stream B-AC

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D5	2031 + Com + Dev	AM	DIRECT	07:45	08:45	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

Demand (Veh/hr)

07:45 - 08:00

		To		
		A	B	C
From	A	0	147	254
	B	226	0	390
	C	236	160	0

Demand (Veh/hr)

08:00 - 08:15

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Demand (Veh/hr)

08:15 - 08:30

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Demand (Veh/hr)

08:30 - 08:45

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	3	2
	B	3	0	1
	C	3	5	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	1.22	124.36	31.4	F	154	154
C-AB	0.36	8.20	0.7	A	61	61
C-A					38	38
A-B					37	37
A-C					64	64

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	616	154	506	1.217	490	0.0	31.4	124.356	F
C-AB	245	61	680	0.361	242	0.0	0.7	8.199	A
C-A	151	38			151				
A-B	147	37			147				
A-C	254	64			254				

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	651	0.000	126	31.4	0.0	0.000	A
C-AB	0	0	615	0.000	3	0.7	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	632	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	616	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

2031 + Com + Dev, 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		21.70	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)	Run automatically
D6	2031 + Com + Dev	PM	DIRECT	17:00	18:00	60	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)	O-D data varies over time
✓	✓	HV Percentages	2.00	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Scaling Factor (%)
A		DIRECT	✓	100.000
B		DIRECT	✓	100.000
C		DIRECT	✓	100.000

Origin-Destination Data

17:00 - 17:15

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	151	191
	B	141	0	313
	C	192	379	0

17:15 - 17:30

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

17:30 - 17:45

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Demand (Veh/hr)

17:45 - 18:00

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	1
	B	0	0	1
	C	0	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.91	41.89	6.0	E	114	114
C-AB	0.77	20.17	3.6	C	132	132
C-A					11	11
A-B					38	38
A-C					48	48

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	454	114	501	0.906	430	0.0	6.0	41.890	E
C-AB	527	132	683	0.772	513	0.0	3.6	20.167	C
C-A	44	11			44				
A-B	151	38			151				
A-C	191	48			191				

17:15 - 17:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	665	0.000	24	6.0	0.0	0.000	A
C-AB	0	0	639	0.000	14	3.6	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:30 - 17:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				

17:45 - 18:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	642	0.000	0	0.0	0.0	0.000	A
C-AB	0	0	637	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
A-B	0	0			0				
A-C	0	0			0				