

Cleator Moor Innovation Quarter (CMIQ) Leconfield Industrial Estate, Cleator Moor Proposed Redevelopment

Transport Assessment

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Contents

1	INTRODUCTION	1
2	EXISTING SITUATION	3
3	ACCESSIBILITY	8
4	PROPOSED DEVELOPMENT	12
5	HIGHWAY FLOWS	17
6	OPERATIONAL ASSESSMENT	27
7	HIGHWAY SAFETY	55
8	SUMMARY	65

Appendices

Appendix A	FIGURES
Appendix B	DRAWINGS
Appendix C	TRICS OUTPUT FILES
Appendix D	CENSUS 2011 EXTRACTS
Appendix E	NETWORK DIAGRAMS
Appendix F	MODEL GEOMETRIES A595
Appendix G	JUNCTION OUTPUT FILES
Appendix H	QUEUE OBSERVATIONS
Appendix I	EXTRACTS FROM WSP COPELAND TRANSPORT STUDY
Appendix J	CCC HIGHWAY SAFETY RECORDS

1 INTRODUCTION

- 1.1 Tetra Tech (TT) have been engaged by Copeland Borough Council (CBC) to prepare a Transport Assessment (TA) for the redevelopment and expansion of Leconfield Industrial Estate, Cleator Moor.
- 1.2 The proposals seek to deliver the Cleator Moor Innovation Quarter (CMIQ), which will host the Innovation and Solutions Hub Campus. CMIQ will utilise a business cluster approach to diversifying the West Cumbrian economy away from dependency on Sellafield by building upon existing supply chain, knowledge and engineering capabilities in the nuclear and clean energy sectors.
- 1.3 Outline planning permission is sought for employment led mixed-use development on the existing Leconfield Industrial Estate and adjacent land parcels to the north and east at Cleator Moor. Quantum, land use, scale and access are being sought for approval with all other matters reserved.
- 1.4 CMIQ proposes three areas of development within and around Leconfield Industrial Estate. Area 1 is the existing estate; the illustrative masterplan indicates refurbishing existing buildings and providing 9,735sqm of new industrial units in addition to the 4,000sqm Hub. Area 2 is located to the east, on land accessed via the existing health centre access from Birks Road; the illustrative masterplan indicates 5,837sqm of either student accommodation or E(g(ii)). Area 3 is the northern expansion land located directly north of the existing estate and accessed via a new junction on Bowthorn Road; the illustrative masterplan indicates a number of industrial units totalling 24,029sqm.
- 1.5 This TA has been produced having due regard for the advice contained in:
- National Planning Policy Framework (NPPF) published by Department for Communities & Local Government (DCLG).
 - DCLG's Transport Assessment and Travel Plan guidelines set out in Planning Practice Guidance.
 - Department for Transport's (DfT's) Manual for Streets (MfS) and MfS 2.
 - Cumbria County Council's (CCC's) Development Design Guide.
- 1.6 This TA follows pre-application discussions with the highway officers of CCC and National Highways (NH). A Scoping Report (September 2021) was submitted in which the proposed development was set out. The trip rates and traffic assignment to be used were presented, along with a list of junctions on the local road network that will likely require assessment. Scoping responses were received from both CCC and NH, in which it was requested a number of

additional junctions on the A595 were considered. Due to time constraints and lack of readily available data, and as discussed with CCC and NH, the draft TA (Nov 2021) assessed the local road network only. However, the submission deadline was extended and a full assessment, including the A595, has become possible.

- 1.7 The main purposes of this TA are to establish the traffic impacts of the proposed development on the local road network as well as at key junctions on the A595, consider the safety impacts of the generated traffic, and review the accessibility of the site for pedestrians, cyclists or public transport users.
- 1.8 This TA has been prepared solely in connection with the proposed development. Whilst every reasonable effort has been made to ensure its accuracy, use of the information contained in the report by a third party for any other purpose is entirely at their own risk.

2 EXISTING SITUATION

Development Site

- 2.1 The development proposal consists of three sites: Area 1 is the current Leconfield Industrial Estate, which will be re-developed; Area 2 is the eastern site, previously developed land located to the rear of the health centre; Area 3 is the northern expansion site which will be the development of currently agricultural land. The site is shown at Figure 1 at Appendix A.
- 2.2 Area 1 is located off the B5295 Leconfield Street in Cleator Moor at an existing mini roundabout junction. Area 2 is located off the existing access from Birks Road that currently serves Fell View Health Care and Cleator Moor Celtic Football Club. Area 3 is located between the B5294 Bowthorn Road and Birks Road and does not currently have a vehicle access point.
- 2.3 Internally, the estate's main road runs north-east from the mini roundabout. This section is street lit and has a 7.3m carriageway with footways on both sides. At the northern end, the main estate road then runs south-east to the proposed Hub site. This section is also 7.3m wide and is lit but has intermittent footway. There are minor roads branching off, these are typically narrower, around 6m; most are unlit and have intermittent footways. There are speed bumps and advisory 5mph speed limit signs on the main access road. All the estate roads are privately owned and do not form part of the public highway.

Local Transportation Networks

- 2.4 Leconfield Street is part of the B5295 which is the main road running through Cleator Moor. The B5295 begins as the minor arm of a T-junction with the A5086. It starts as Ennerdale Road giving access to many residential streets, then becomes High Street which gives access to the town centre and Birks Road, and later becomes Leconfield Street which gives access to Leconfield Industrial Estate via the mini roundabout and later Bowthorn Road (B5294). The B5295 then becomes Whitehaven Road and thereafter Keekle Terrace and later heads towards Hensingham, the A595(T) and Whitehaven.
- 2.5 In the vicinity of the industrial estate, Leconfield Street is some 7m wide with a 1.5m footway on the northern side and 2m footway on the southern side. There is a system of street lighting in place and the road is subject to a 30mph speed limit. There are No Waiting At Any Time restrictions on both sides of Leconfield Street east of the mini roundabout; to the west on-street parking is not controlled.
- 2.6 Little Croft is the fourth arm of the mini roundabout. It is a dead-end road that gives access to the Co-op, Travis Perkins, and 10 residential properties. There are no parking restrictions on Little Croft.

- 2.7 To the east of the site, the B5295 becomes Whitehaven Road. It then forms the major arm of a priority junction with Dazell Street at Keekle Terrace. It later passes through the outskirts of Hensingham where it terminates as Cleator Moor Road at a 3-arm mini roundabout with Main Street and Moresby Road near Whitehaven Academy.
- 2.8 Bowthorn Road is part of the B5294 which has a broadly south-west to north-east alignment between its junction with the B5295 Leconfield Street and the A5086 at Frizington. Leconfield Industrial Estate does not have a direct frontage to Bowthorn Road. However, the northern expansion land (Area 3) does have a direct frontage to Bowthorn Road.
- 2.9 Bowthorn Road has a carriageway width of some 9.0m in the south-western section between Leconfield Street and Border Avenue with 1.8m footways on both sides. Here there is terraced housing on the west side, grassed area on the east side and on-street parking. Between Border Avenue and Threaplands the carriageway width of Bowthorn Road reduces gradually from 8.9m to 6.1m, and there is on-street parking on the east side adjacent to the terraced houses. There are good standard footways on both sides of the road. Between the B5295 and to a point 70m north of Threaplands, Bowthorn Road is within the 30mph speed limit and there is street lighting. Beyond this, Bowthorn Road becomes rural with no frontage development, no footways and is subject to a 40mph speed limit. North of Threaplands the carriageway width reduces from 6.1m to a minimum of 4.8 at Bowthorn Beck after which the carriageway width increases to 5.5m.
- 2.10 Birks Road runs in a general north-south orientation for approximately 1.5km, from its priority junction with the B5295 High Street in the south to a priority junction with the B5294 to the north. The road is a street-lit, single carriageway typically 7.5m wide within the vicinity of the proposed development site. Some 375m north of the Health Centre access is a bridge over the old railway line, now the C2C cycleway which reduced the carriageway width to circa 4.0m in width and there are no footways.
- 2.11 The built-up portion of Birks Road is subject to a 20mph speed limit, which extends 180m north of the bridge where the speed limit changes to 30mph, then after a further 130m the speed limit changes again to 40mph. The houses fronting Birks Road are terraced and there is on-street parking. On the western side of the road, there are parking bays but none on the eastern side although residents park on both sides of the road. There is good standard footway on both sides of the road for the majority of its length.
- 2.12 The narrow bridge on Birks Road, located at the southern extent of Area 2, is approximately 4.0m wide and 45m long, resulting in cars having to give way to opposing traffic. The Bridge is not lit and there is no weight limit imposed.

- 2.13 The A5086 runs north and south, to the east of the development site, and provides a route which by-passes Cleator Moor for traffic heading locally between Egremont in the south and Frizington to the north and then to Cockermouth where it joins the A66. The A5086 has a typical carriageway width of 7.5m as it runs east of Cleator Moor and there is footway on either side of the road with a 30mph limit in place along this stretch.

Walking and Cycling

- 2.14 Leconfield Industrial Estate is situated in a town and is well served by footways. Leconfield Street has good quality footways on both sides. There is a continuous route to the town centre and to many other local facilities. There are multiple pedestrian crossings and refuge islands on Leconfield Street.
- 2.15 B5294 Bowthorn Road has footway on both sides between Leconfield Street and Sanderson Park, and thereafter a footway on the west side only until Bowthorn Beck, after which there are no footways.
- 2.16 Birks Road has footways on both sides of the carriageway south-west from the railway bridge to the junction with the B5295 and provides direct access to Cleator Moor town centre.
- 2.17 National Cycle Network (NCN) route 71, which is part of the Coast to Coast (C2C) cycle route, passes along the eastern boundary of Leconfield Industrial Estate. Locally it is an off-road cycle path, following the dismantled railway line, which gives access to Rowrah and Moor Row. It also connects to NCN route 72 which provides access into Whitehaven town centre. There are no designated cycle routes along Bowthorn Road and Birks Road; however both roads are lightly trafficked and suitable for cycling on the carriageway.
- 2.18 Accessibility on foot and by bike is considered further in Chapter 3 below.

Public Transport

- 2.19 The nearest bus stop to the industrial estate is the westbound stop located outside the Co-op, some 60m east of the mini roundabout. The corresponding eastbound stop is a further 65m east. Both stops are a flag and pole arrangement; the westbound stop also has timetable information. Accessibility via public transport is considered further in Chapter 3 below.

Traffic Surveys

- 2.20 Manual Classified Counts (MCC) were undertaken at a number of local junctions along the B5295. The MCCs were carried out by the specialist data collection company NLTDC Ltd. Traffic turning movements during the AM and PM peak periods on Tuesday 25th February 2020 (prior to Covid-19 restrictions imposed by Government) were recorded. The survey data can be supplied upon request.

- 2.21 Traffic flow data for the A595 junctions and Hensingham Square was extracted from CCC's West Cumbria Transport Model which uses SATURN software. Peak hour flows for 2019 (the model's base year) were provided to TT.
- 2.22 The traffic flows obtained from the surveys and from the SATURN model are used as the baseline for the operational assessment of the road network, as detailed in Chapter 6 below.

Extant Planning Permissions

- 2.23 Tetra Tech have not been made aware of any extant planning permissions or committed developments that need to be taken into account in this TA.

Town Deal Proposals

- 2.24 Cleator Moor has been successful in gaining funding as part of the Town Deal initiative. A number of interventions around the town are under consideration in order to improve Cleator Moor for residents and visitors. The Cleator Moor Town Deal has several strands: Enterprising Town to develop an enterprise campus on Leconfield Industrial Estate (The Hub); Campus Town to provide student accommodation for the planned growth of UCLAN; Healthy Town which seeks to improve sport and leisure facilities; and Connected Town which will deliver a high-quality integrated and sustainable transport network to link employment, education, amenities and leisure. Connected Town proposals are being worked up which may improve connectivity to Leconfield Industrial Estate and The Hub, such as a Toucan crossing on Whitehaven Road near to the Bowthorn Road junction, but these are at an early stage of development.

Copeland Local Plan

- 2.25 The Copeland Local Plan was adopted in December 2013 and sets the local planning policies for the Borough until 2028. The Local Plan runs included Leconfield Industrial Estate in Policy EMP1 and its northern expansion in Policy EMP3. A replacement Local Plan for the period to 2038 is being prepared by the Council and is at the pre-publication draft stage with examination in public yet to come and an Inspector to be appointed. The draft plan includes an allocation at Policy E4PU for the proposed 32.4ha Cleator Moor Innovation Quarter.
- 2.26 On behalf of CBC, WSP were appointed to assess the transport impacts of the proposed Preferred Options local plan allocations. The findings are presented in their Copeland Transport Improvements Study dated June 2021. The WSP study assessed the impact of Preferred Options local plan which included 14ha at Leconfield Industrial Estate plus a 30ha strategic employment site at Hensingham. The pre-publication draft local plan has increased the development at Leconfield to the 32.4ha at the Innovation Quarter and has deleted the 30ha Hensingham strategic employment site.

- 2.27 Although the WSP study is somewhat out of date it does provide a useful indication of the likely local plan impacts and potential mitigation measures. It also includes an indication of which sites may contribute to the mitigation measure. With the changes to the allocations between the preferred options and pre-publication stage local plans, this work will need to be revisited.
- 2.28 However it should be noted that, because of the stage of development of the replacement local plan, little weight can be given to it and the suggested allocations within the plan have not been included within the TA.

A595 Mirehouse, West Lakes and Egremont Study

- 2.29 The above study was prepared by Atkins on behalf of National Highways and was published in June 2021. The study assessed existing levels of congestion between the A595/ Inkerman Terrace and A595/ St Thomas' Cross (Vale View) roundabout south of Egremont, and suggested to some options for future consideration.

3 ACCESSIBILITY

- 3.1 NPPF was updated and revised in February 2019, replacing the 2012 version of the Framework, then updated again in July 2021. At Paragraph 104 c) NPPF identifies “*opportunities to promote walking, cycling and public transport use are identified and pursued*” for development proposals and at Paragraph 105 it indicates “*opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making*”. The accessibility of the proposed development has been considered based on the guidance in NPPF.

Walking

- 3.2 TT have analysed walking for all purposes as the main mode of travel (from home) by interrogating data collected through the 2010, 2011 and 2012 National Travel Surveys (NTSs) to calculate the average and 85th percentile distances travelled. The survey data was collected from 7,700 households covering over 18,000 individuals and so provides a robust sample which can be reviewed for variations across UK regions and variations between different reasons for travelling.
- 3.3 The analysis has revealed the average distance people walk is 1.15km and the 85th percentile distance is 1.95km. The data was published in Local Transport Today in October 2017.
- 3.4 For this review 1.95km has been adopted as an acceptable upper threshold walk distance which is a 24-minute walk (at a typical walking speed of 1.3m per second) from the proposed development. Figure 2 in Appendix A shows the local facilities within a 1.95km catchment.
- 3.5 There will be facilities within the development site such as a café and shop in the proposed Hub building, which employees will be able to use on their meal breaks.
- 3.6 Situated near the centre of Cleator Moor, Leconfield Industrial Estate is in a very accessible location for pedestrians. The land near Birks Road (proposed Area 2) is also very accessible being close to the town centre. The majority of Cleator Moor is within a reasonable walking distance, including all the residential areas. The land at Bowthorn Road (proposed Area 3) is further out and currently does not have any pedestrian connections. The eastern extremities of the town (A5086) are just beyond a 24-min walk from the furthest point of Area 3.
- 3.7 There is a good network of footways surrounding the estate and within Cleator Moor. There is a pedestrian crossing point located on Leconfield Street immediately east of the mini roundabout in the form of a pedestrian refuge with dropped kerbs and tactile paving. There is an additional

crossing point on Leconfield Street west of the mini roundabout which consists of dropped kerbs and tactile paving.

3.8 There are a number of facilities available in the immediate area, providing useful destinations for employees on lunch breaks etc. Immediately opposite the estate is the Nisa convenience store and the Co-op food store. The town centre includes the civic hub with the library and Local Links office and is a 15-min walk from the estate. There are many cafes and takeaways available around the town centre, as well as banks, opticians and chemists. Using the vehicle route through the industrial estate and onto Leconfield Street, the northern extents of the estate are 1.2km (a 15-min walk) from the town centre; however, via the pedestrian connections onto the C2C cycleway, it is approx. 600m (an 8-min walk).

3.9 There is a public right of way (bridleway number 403019) which runs along the northern boundary of the estate, from Bowthorn Road, and links to the C2C cycle path.

Cycling

3.10 TT have analysed cycling for all purposes as the main mode of travel (from home) by interrogating data collected through the 2010, 2011 and 2012 NTSs to calculate the average and 85th percentile distances travelled. The survey data was again collected from 7,700 households covering over 18,000 individuals. The analysis revealed the average distance people cycle is 4.5km and the 85th percentile distance is 7.2km. The NTS data is available on request.

3.11 There are a number of identified cycle routes in the local area. The C2C passes along the eastern boundary of the site. It is an off-road cycle path, following the dismantled railway line, and locally gives access north to Rowrah and south to Moor Row. It also joins to NCN route 72 to the southwest of Cleator Moor, which provides a mostly off-road link from Egremont and through to Mirehouse, Whitehaven town centre, and then north to Parton, Workington and Maryport.

3.12 At a typical cycling speed of 200m per minute a 4.5km cycle ride takes 20 to 25 minutes and a 7.2km cycle ride takes just over 35 minutes. Figure 3 in Appendix A shows the local cycles routes and the towns within a 7.2km cycle distance.

3.13 All the places which are accessible within a 25-minute walk can be reached by up to a 10-minute cycle ride.

3.14 The whole of Cleator Moor is accessible in a 10-min cycle ride from the proposed sites. There are a number of residential areas where employees may live which are within an accessible cycle ride of the development sites. Frizington is a 20-min cycle, and Moresby Parks is a 25-min cycle. Accessible via the identified cycle routes are: Moor Row (10 mins), Bigrigg (15 mins), Egremont (20 mins), St Bees (25 mins), Whitehaven (30 mins).

Buses

- 3.15 The nearest bus stop to the estate is the westbound stop located outside the Co-op, some 60m east of the estate access on Leconfield Street, as shown in Photo 1 below. There is a pedestrian refuge crossing point on Leconfield Street to allow easy access to the bus stop. The corresponding eastbound stop is a further 65m east. The stops are a flag and pole arrangement with no shelters or seating; the westbound stop has timetable information. The provision of shelters and waiting facilities is recommended.



Photo 1 (Google Streetview): Westbound bus stop on Leconfield Street

- 3.16 The majority of Area 1 is within a 400m walk distance of a bus stop; the Hub building is some 600m from the bus stop. The units on the northern expansion site are within approx. 700m (8-min) walk utilising the proposed footway connections between Area 3 and Areas 1 & 2.
- 3.17 The closest bus stops to Area 2 are located at the Civic Hall, some 300m (a 4-min walk) from Area 2's access near the health centre. The westbound stop has a shelter (no seating) and timetable information, shown in Photo 2 below. The eastbound stop is a flag and pole arrangement with timetable information.



Photo 2 (Google Streetview): Westbound bus stop at Civic Hall

3.18 Table 3.1 below shows the services which call at the stops on Leconfield Street and the Civic Hall. The stop locations and walking routes are shown on Figure 2 in Appendix A.

Table 3.1: Bus Services, Leconfield Street

Route No.	Route Description	Monday to Saturday		Sunday
		Daytime	Evening	Daytime
Stagecoach 30	Maryport to Frizington via Flimby, Siddick, Workington, Annie Pit, Harrington, Lillyhall, Distington, Whitehaven, Caldbeck Road, Cleator Moor, Frizington, Hensingham Square, West Cumberland Hospital, Bigrigg, Egremont, Thornhill	Every 30 minutes	Every 2 hours	Every 2 hours
Stagecoach 34	West Lakes Academy to Bowthorn Via Cleator Moor	Departs once a day at 15:40	No service	No service

3.19 Table 3.1 shows that the Stagecoach 30 service provides connections to a range of surrounding towns and villages where employees at the development site may reside.

Conclusion

3.20 The site is in an accessible location for pedestrians, cyclists and public transport users. There are many local residential areas and towns within reasonable walking and cycling distances where employees may live. Buses are available which provide regular and frequent services to a number of surrounding residential areas. There are many useful facilities available in Cleator Moor for employees.

4 PROPOSED DEVELOPMENT

4.1 The proposed development will revitalise the existing Leconfield Industrial Estate as a more modern space, including the Hub building, along with providing two additional sites to the north and east. The sites comprise a mix of B2, B8, E(b), E(g[ii&iii]), and F1 (a,e) land uses totalling around 43,610sqm as indicated on the illustrative masterplan:

- Area 1 is the existing industrial estate where 9,735sqm of new industrial units, in use classes E(g[ii&iii])/ B2/ B8, plus the Hub building of up to 4,000sqm unit and use classes E(b), E(g[ii&iii]), and F1 (a,e).
- Area 2 is the eastern expansion site where 5,837sqm of Eg(ii), Sui Generis student accommodation.
- Area 3 is the northern expansion site where 24,029sqm of E(g[ii&iii])/B2 units are proposed.

4.2 An illustrative masterplan is shown at Norr Consultants Ltd Drawing Number ZZ-DR-A-90002 at Appendix B.

Access

4.3 Area 1 will continue to be accessed from the public highway (Leconfield Street) via the mini roundabout. The main two arms of which are Leconfield Street east and west; the third arm is Little Croft. The industrial estate arm has a mandatory give-way marking, as does the left turn lane on the approach from Leconfield Street east; Little Croft and Leconfield Street west have advisory give-way markings. Apart from Leconfield Street east, all other approaches are single lane entry. The roundabout can be viewed at Image 1 below.



Image 1 (Google Earth): Area 1 Mini Roundabout Access

- 4.4 There are no proposed highway alterations to the Leconfield Street/ estate access mini roundabout. However, it is proposed to make the first left turn within the site into an in-only access. This is to improve the junction spacing with the mini roundabout. The proposed improvement is shown in TT Drawing 784-B030277-C002-P01, attached in Appendix B.
- 4.5 The estate's main road runs north-east from the mini roundabout where it is street lit and has a 7.3m carriageway with footways on both sides. At the northern end, the main estate road then runs south-east, eventually to the proposed Hub site. This section is also 7.3m wide and is lit but has intermittent footway (proposed to be improved as part of the Hub application). There are minor roads branching off throughout the estate, these are typically narrower, around 6m; most are unlit and have intermittent footways. It is proposed as part of the masterplan to provide a continuous footway network within the site. There are speed bumps and advisory 5mph speed limit signs on the main access road. All the estate roads are privately owned and do not form part of the public highway.
- 4.6 Area 2 is accessed from an extension of the Fellview Health Centre and Cleator Moor Celtic Football Club access road. Image 2 below shows the existing junction arrangement.



Image 2 (Google Earth): Area 2 Access off Birks Road

- 4.7 The access road is 5.5m in width which is sufficient for the land-use which is proposed. Servicing vehicles accessing Area 2 will be no larger than the servicing vehicles which currently serve the health centre.
- 4.8 Area 3 will be accessed from the B5294 Bowthorn Road via a new right-turn ghost island priority junction arrangement, located north-east of Bowthorn Beck. This allows right-turning vehicles to wait without impeding straight-ahead traffic. The junction has been designed to a 30mph standard and it includes a proposal to relocate the existing 30mph speed limit from its current

position (70m east of Threaplands) to a new position adjacent to the barn on the south side of Bowthorn Road. The design of the junction complies with CD 123 Geometric Design of At-Grade Priority and Signal-Controlled Junctions in the Design Manual for Roads and Bridges (DMRB) and is shown on TT Drawing Number 784-B030277-SK001-P03 at Appendix B.

- 4.9 The proposed junction and widening can be provided wholly within the adopted highway or land included as part of Area 3, delivered via a Grampian-style planning condition and constructed under a Section 278 Agreement with CCC.
- 4.10 The 30mph speed limit, and street lighting, is to be extended beyond the access junction and it has therefore been agreed with highway officers of CCC that the junction needs to provide visibility splays for speeds of 37mph which is the upper threshold of MfS guidance for a 30mph road. TT Drawing Number 784-B030277-SK001-P03 shows a 2.4m x 60m visibility splay can be delivered to both the left and right from the access junction in the horizontal plane. TT Drawing Number 784-B030277-0007-P01 shows that from a driver eye height of 1.05m at the access junction and at a distance of 2.4m back from Bowthorn Road, the driver can see to an eye height of 600mm to 60m left and right demonstrating that visibility can also be delivered in the vertical plane.
- 4.11 It is also proposed to widen Bowthorn Road between the access and Threaplands. Currently the carriageway width varies between 4.8 and 5.2m with grass verges. To allow two HGVs to pass, a minimum width of 6.5m should be provided as shown on TT Drawing Number 784-B030277-SK001-P03. A 2m footway along the south-eastern side of Bowthorn Road from the access to Threaplands is also proposed, as shown.
- 4.12 As discussed in Chapter 2 above, the width of the B5294 Bowthorn Road varies along its length and there are pinch points along the route. The terraced houses along Bowthorn Road do not have garages or drives and there is on-street parking along the frontages, and less so on the opposite side of the road. There are no waiting restrictions along Bowthorn Road and therefore residents are free to park where they want.
- 4.13 The on-street parking limits the available carriageway space to 4.2m at some points along Bowthorn Road. In order to retain as much on-street parking for residents as possible, parking will need to be managed to facilitate HGV movements to the site. Between Leconfield Street and Border Avenue, two HGVs can pass while the on-street parking is maintained, albeit formalised into bay parking on one side. Between Border Avenue and Threaplands, two HGVs can pass until the carriageway width is reduced to below 8.5m (including parking), at which point waiting restrictions are introduced. To minimise the loss of parking for residents, shuttle working has been introduced for vehicles. TT Drawing 784-B030277-SK003-P02 at Appendix B shows the provision of three parking bays (totalling 130m) along the frontage of the terraced housing

between Border Avenue and Threaplands, with a long bay of 192m between Border Avenue and Leconfield Street.

- 4.14 Waiting restrictions in the form of double yellow lines are proposed along the sections of the carriageway where the parking bays are not provided to keep those area clear for the passage and repassage of vehicles. Waiting restrictions are also proposed along the south-east side of Bowthorn Road for the majority of the route between Leconfield Street and Threaplands.
- 4.15 The introduction of formalised parking areas and waiting restrictions regulates the carriageway space and allows HGVs to pass more easily along Bowthorn Road. The areas where waiting restrictions are introduced will reduce parking opportunities for residents along Bowthorn Road and therefore an additional off-carriageway parking bay on the south-east side of Bowthorn Road is proposed. The existing 2.0m wide footway on the south-east side of Bowthorn Road will route along the back of the proposed parking area to provide a continuous footway. This is shown at TT Drawing 784-B030277-SK003-P02.
- 4.16 TT Drawing 784-B030277-SK004-P02 at Appendix B shows the swept path analysis of two 16.5m FTA Design Articulated Lorries passing along the 6.5m wide sections of Bowthorn Road and then two areas (outside 147 Bowthorn Rd and The Bungalow) where an HGV travelling north-east towards Area 3 will wait at a give-way and allow a wagon travelling south-west towards Cleator Moor to pass. The forward visibility afforded to the driver at both give-way lines is good.
- 4.17 Additionally, extra footway provision is proposed by upgrading the existing 3.0m wide verge on the south-east side of Bowthorn Road running between Sandrerson Park and Threaplands. This, along with the proposed footway at the site access, will provide a continuous pedestrian route from Area 3 along Bowthorn Road.
- 4.18 The proposed access to Area 3 and the associated works on Bowthorn Road have been subject to a Stage 1 Road Safety Audit (RSA) by an independent team. The RSA and the Designer's Response to the 4 minor issues raised are submitted under separate cover.
- 4.19 There are no vehicular connections between each of the sites within the masterplan.
- 4.20 There is an emergency vehicle access proposed from the south-eastern end of Area 3 onto Birks Road, just north of the bridge. This will not allow non-emergency vehicles access but will serve as a pedestrian and cycle access.

Pedestrian and Cycle Access

- 4.21 The proposed development provides foot/cycleways at all three site accesses and on internal roads. There are many pedestrian and cycle connections between each of the three sites as well as new ones proposed onto the external network.
- 4.22 There is a new foot/cycleway connection proposed from Area 1 to Bowthorn Road and onto Leconfield Street. A foot/cycle connection is also proposed from Area 3 to Birks Road to the north of the rail bridge (also serves as an emergency access).

Parking and Servicing

- 4.23 Although the application is in outline and the end users are as yet unknown, the masterplan indicates the following numbers of car parking spaces:
- Area 1 – 329 spaces.
 - Area 3 – 459 spaces.
 - Area 2 – 164 spaces.
- 4.24 Parking provision is based on the requirements specified in the Cumbria Development Design Guide.
- 4.25 Disabled, EV, motorcycle and cycle parking will be provided on a plot-by-plot basis and in accordance with guidance.

Construction Traffic

- 4.26 A Construction Environmental Management Plan (CEMP) can be produced which will set out the details of how construction traffic will be managed on site to minimise disruption to local residents. The document will include the following:
- Outline anticipated daily construction movements.
 - Specify likely routing of vehicles to reduce impacts on local residents.
 - Site management to control mud, dust, vehicle emissions and waste removal.
 - Constructors compound to provide parking of construction vehicles within the site.

5 HIGHWAY FLOWS

5.1 In 2020 a Scoping Note was prepared for an alternative and less extensive redevelopment of Leconfield Industrial Estate, Area 1 only. The scope of that assessment, including trip rates, traffic assignment and junctions to be assessed, was agreed with highway officers of CCC. The agreed scoping included an assessment of the traffic generation of the existing Leconfield site to inform an assessment of the potential traffic generation of the vacant units on site. This element has been carried forward to this TA.

5.2 The trip generation rates used in the 2020 assessment, however, will not be carried forward. This is because the trip rates derived for that report were based on a specific land use proposal envisaging high proportions of R&D (then B1b, now E(g(ii)) and other light industrial land uses (then B1c, now E(g(iii))). The present proposal has a greater proportion of B2 and B8 land uses, therefore new trip rates have been proposed based on those recently accepted for a similar development in West Cumbria at Lillyhall North, which in turn were based on those used for the Allerdale Local Plan Transport Modelling Report. The below trip rates have been agreed with highway officers of CCC during scoping.

Trip Generation – Current Site

5.3 The Industrial Estate is currently only part occupied but has valid permitted uses for the vacant units which could be brought into operation without further planning consents being required. As a result, the permitted trip generation of the estate, as detailed below, is likely to be greater than observed traffic flows to and from the site would suggest. The traffic flows estimated to be generated by the existing vacant units should they all be operational has been estimated using the agreed trip rates from the Scope Report (September 2021).

5.4 The TRICS database has been used to estimate the trip generation of the existing industrial estate. The following criteria were applied to the TRICS category 02/D “Industrial Estate”:

- Sites in London, Republic of Ireland, and Northern Ireland were excluded.
- Location types Edge of Town Centre, Neighbourhood Centre, Suburban Area, and Edge of Town sites were included. All sub-categories were included.
- Only surveys carried out on a weekday were included.
- Estates between 7,500sqm GFA and 150,000sqm GFA were included.
- Only the most recent survey was included for each site.

5.5 Fifteen survey sites remained in the dataset. Because the Industrial Estate category is a mix of B1, B2, and B8 land use classes, each site was individually examined and only those with at

least 60% B1 and low proportions of B2 and B8 were selected, and those with predominantly B2 or B8 uses were excluded, in line with the predicted land use splits.

- 5.6 A total of 7 sites remained in the final dataset and multi-modal trip rates were determined. Average trip rates from the sample for the AM and PM peak hours are shown at Table 5.1 below. These rates have been used to predict the traffic flows generated by the existing 23,195sqm industrial estate, also shown in the table below. The TRICS output files are attached in Appendix C.

Table 5.1: TRICS Trip Rates and Trips for Current (if fully occupied) 23,195sqm Industrial Estate

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	0.373	87	0.154	36
Weekday PM Peak Hour 17:00 to 18:00	0.194	45	0.416	96

- 5.7 The flows from the February 2020 (pre-Covid) traffic survey at the estate access are presented at Table 5.2 below for comparison. At the time of the survey the estate was estimated to be approx. 19,000sqm GFA occupied.

Table 5.2: Surveyed Flows at Estate Access

Time Period	Arrivals	Departures
Weekday AM Peak Hour 08:00 to 09:00	55	34
Weekday PM Peak Hour 17:00 to 18:00	27	51

- 5.8 Site-specific trip rates have been derived for the new uses, as detailed below in paras 5.12 onwards.

Trip Generation – Existing Health Centre

- 5.9 Area 2 will use an existing access junction which currently serves the Fellview Health Centre and football club. The 2020 surveys did not include the Birks Road/health centre access junction. As the assessment is for weekday peak periods, the football club has been discounted as activity will be limited to weekends and possibly evenings for the most part. Therefore TRICS has been used to estimate the existing trips in and out of the access for the health centre, which currently employs 8 doctors.

- 5.10 The following criteria were applied to the TRICS category 05/G “Health – GP Surgeries”:
- Sites in London, Republic of Ireland, and Northern Ireland were excluded.
 - Location types Edge of Town Centre, Neighbourhood Centre, Suburban Area, and Edge of Town sites were included. All sub-categories were included.
 - Only surveys carried out on a weekday were included.
 - Only the most recent survey was included for each site.
- 5.11 A total of 15 sites remained in the dataset and trip rates were determined, as shown at Table 5.3 below.

Table 5.3: TRICS Trip Rates and Trips for Fellview Health Centre

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	2.792	22	1.248	10
Weekday PM Peak Hour 17:00 to 18:00	1.368	11	2.000	16

- 5.12 The traffic is assigned onto the network as per the proportions found in the 2020 survey which shows a broadly 50:50 split north and south on Birks Road.

Trip Generation – Proposed Development

Area 1

- 5.13 Area 1 has two distinct aspects in trip generation terms. The majority of the site is mixed industrial uses. The proposed Hub building however is a more collaborative space, including workshops, lecture theater capabilities, research and development units, community spaces, café and shop. The Hub is subject to a separate planning application which is for 3,000sqm however the parameter plan allows for upto 4,000sqm. Therefore the upper limit of 4,000sqm is used for assessing trip generation as it provides a robust assessment.
- 5.14 Trip generation has been calculated separately for both elements of Area 1, as detailed below.
- 5.15 The traffic generation for the industrial part of Area 1 is calculated using the approved trip rates extracted from the Lillyhall North Industrial Estate TA which were derived from the WSP Transport Modelling Report for the Allerdale Local Plan. These trip rates were agreed by both CCC and NH in September 2020 and the Lillyhall scheme was granted planning permission in January 2021. The Lillyhall North Industrial Estate is of a similar size (29,750sqm) and mix of uses and therefore the trip rates are considered to be appropriate. This methodology has been agreed with highway officers of CCC.

5.16 Table 5.4 below shows the approved trip rates and applies them to the proposed 9,735sqm of new industrial floorspace at Area 1 to estimate the number of new vehicular trips which are likely to be generated.

Table 5.4: Vehicle Trip Rates and Trips for Proposed 9,735sqm new GEA at Area 1

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	0.514	50	0.284	28
Weekday PM Peak Hour 17:00 to 18:00	0.254	25	0.414	40

5.17 Trip generation for the Hub building also has been calculated using TRICS. The following criteria were applied to the TRICS category 02/C "Industrial Unit":

- Sites in London, Republic of Ireland, and Northern Ireland were excluded.
- Location type Edge of Town was the only category available. All sub-categories were included.
- Only surveys carried out on a weekday were included.
- Only the most recent survey was included for each site.

5.18 23 survey sites remained in the dataset. Because the Industrial Unit category is a mix of offices, R&D and storage land use classes, each site was individually examined and those that were only E(g[ij]) were selected.

5.19 A total of 2 sites remained in the final dataset and vehicle trip rates were determined. Average trip rates from the sample for the AM and PM peak hours are shown at Table 5.5 below. These rates have been used to predict the traffic flows generated by the proposed 4,000sqm Hub, also shown in the table below. The TRICS output files are attached in Appendix C.

Table 5.5: Vehicle Trip Rates and Trips for Proposed 4,000sqm Hub at Area 1

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	1.116	45	0.040	2
Weekday PM Peak Hour 17:00 to 18:00	0	0	1.355	54

5.20 Total traffic generation for Area 1 is shown at Table 5.6 below.

Table 5.6: Total Trip Generation for Area 1

Time Period	Arrivals	Departures	Total
Weekday AM Peak Hour 08:00 to 09:00	95	30	125
Weekday PM Peak Hour 17:00 to 18:00	25	94	119

Area 2

- 5.21 Area 2 proposes a development of 5,837sqm which would be either sui generis Student Accommodation or E(g(ii)) R&D land uses. In order to provide a robust assessment, R&D trip rates have been assumed for the entirety of Area 2 as it is the highest generator of the potential uses. These are the same as those used for the Hub, repeated here for completeness.
- 5.22 The following criteria were applied to the TRICS category 02/C “Industrial Unit”:
- Sites in London, Republic of Ireland, and Northern Ireland were excluded.
 - Location type Edge of Town was the only category available. All sub-categories were included.
 - Only surveys carried out on a weekday were included.
 - Only the most recent survey was included for each site.
- 5.23 23 survey sites remained in the dataset. Because the Industrial Unit category is a mix of offices, R&D and storage land use classes, each site was individually examined and those that were only R&D (E(g[ii])) were selected.
- 5.24 A total of 2 sites remained in the final dataset and vehicle trip rates were determined. Average trip rates from the sample for the AM and PM peak hours are shown at Table 5.7 below. These rates have been used to predict the traffic flows generated by the proposed 4,000sqm Hub, also shown in the table below. The TRICS output files are attached in Appendix C.

Table 5.7: Vehicle Trip Rates and Trips for Proposed 5,837sqm at Area 2

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	1.116	65	0.040	2
Weekday PM Peak Hour 17:00 to 18:00	0	0	1.355	79

Area 3

- 5.25 Area 3 is a different mix of land uses to Area 1; it is predominantly B2 uses. Therefore TRICS has been used to estimate the trip generation of Area 3.
- 5.26 The following criteria were applied to the TRICS category 02/D “Industrial Estate”:
- Sites in London, Republic of Ireland, and Northern Ireland were excluded.
 - Location types Suburban Area and Edge of Town sites were selected.
 - Only surveys carried out on a weekday were included.
 - Only the most recent survey was included for each site.
- 5.27 Thirty survey sites remained in the dataset. Because the Industrial Estate category is a mix of B1, B2, and B8 land use classes, each site was individually examined and only those with less than 50% B1 and less than 15% B8 were included. AM and PM peak hour vehicle trip rates were extracted from the remaining sample of 7 sites, as shown at Table 5.8 below.

Table 5.8: Vehicle Trip Rates and Trips for Proposed 24,029sqm at Area 3

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	0.382	92	0.181	43
Weekday PM Peak Hour 17:00 to 18:00	0.120	29	0.352	85

Total Site

- 5.28 The total volume of new trips for the combined site is shown at Table 5.9 below.

Table 5.9: Total Generated Vehicle Trips for Combined Sites

Time Period	Arrivals	Departures	Total
Weekday AM Peak Hour 08:00 to 09:00	252	75	327
Weekday PM Peak Hour 17:00 to 18:00	54	258	312

HGV Generation

- 5.29 The predicted levels of HGVs generated by the whole development has been estimated from the multi-modal trip rates for Area 3 as these land use types are likely to generate the highest numbers of lorries. Tables 5.10 and 5.11 below show the OGV trip rates and the numbers of trips generated by Area 1 and 3 during the AM and PM peak hours (Area 2, being R&D use, is not expected to generate HGVs other than the standard occasional servicing). To be noted that

the OGV designation in TRICS is wider than the usual HGV category: TRICS includes all commercial vehicles with 2 axels and twin rear wheels (eg large Transit van over 3.5T), plus vehicles with 3 or more axels. Whereas standard HGV designation is vehicles over 7.5T. Therefore the numbers given below somewhat overestimate the number of HGVs likely in the peak hours.

Table 5.10: OGV Trip Rates and Trips for Proposed 9,735sqm at Area 1

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	0.018	2	0.010	1
Weekday PM Peak Hour 17:00 to 18:00	0.001	0	0.007	1

Table 5.11: OGV Trip Rates and Trips for Proposed 24,029sqm at Area 3

Time Period	Arrivals		Departures	
	Trip Rate	Trips	Trip Rate	Trips
Weekday AM Peak Hour 08:00 to 09:00	0.018	4	0.010	2
Weekday PM Peak Hour 17:00 to 18:00	0.001	0	0.007	2

- 5.30 OGV trips are distributed throughout the day, with the peak occurring outside of the network AM and PM peak hours. The highest generation of OGVs occurs between 15:00-16:00, where the rate is 0.030 arrivals and 0.028 departures. For Area 1 this equates to 3 OGV arrivals and 3 OGV departures in the busiest hour, and for Area 3 it is 7 OGVs arriving and 7 departing.

Traffic Assignment

- 5.31 Due to the size of this development the use of the census data for the Cleator Moor area is not considered appropriate to use as a distribution methodology, with which CCC agree. Instead, a gravity model based on population density and distance from the site has been developed to predict the distribution of employees' likely residences. The below methodology was discussed with highway officers of CCC.
- 5.32 Median journey to work travel time in the Whitehaven and Workington areas (from ONS data, extract attached in Appendix D) is 13-24 minutes. To be robust, the local population centres within an approx. 30-minute drive time were identified as Maryport, Cockermouth, Workington, Whitehaven, Egremont, Cleator/Cleator Moor. The distance ("d" in the gravity model equation) via road to each town centre from the site was measured using Google.

- 5.33 The population (“p” in the gravity model equation) of each town was obtained by combining Census 2011 data for the appropriate wards. Extract in Appendix D lists the census wards included for each town.
- 5.34 Including Cleator/Cleator Moor (10% of the population) within the calculation, given its close proximity to the site, results in an unreasonably high proportion of employees (and therefore generated vehicle trips) from within the town – 45%. To correct this, Cleator/Cleator Moor was removed and the calculation of p/d was made for the remaining 5 areas (total population 97,332). Cleator/Cleator Moor was then returned to the results by assuming a more reasonable 10% of employees who travel to the site by car reside in Cleator/Cleator Moor. To adjust the remaining results, 10% was subtracted from each area pro-rata. Table 5.12 below summarises the resulting traffic distribution.
- 5.35 Traffic generated by the development has been assigned onto the network in line with the above employee distribution. Figures 4, 5, 6 in Appendix E show the assignment on the local road network for Area 1, Area 2, and Area 3 respectively. Figure 7 in Appendix E shows the assignment of the site-wide traffic on the wider network.

Table 5.12: Predicted Employee Distribution

Town	Population	Distance (km)	% of Employees
Whitehaven	30,848	6.1	48.8
Workington	30,640	17	17.2
Egremont	8,194	5.7	13.3
Cleator Moor/Cleator	9,494	1.2	10.0
Cockermouth	12,341	21.6	5.6
Maryport	15,309	27.2	5.6

- 5.36 Figures 8 and 9 in Appendix E show the generated traffic assigned on to the local road network for the AM and PM peak hours. Figures 10 and 11 in Appendix E show the generated traffic assigned onto the wider network.
- 5.37 HGVs are assigned from the sites to the A595 trunk road via the quickest route. For both Area 1 and Area 3 this is along the B5295 to Hensingham mini roundabout, south to Hensingham Square mini roundabout and south on the A595 at the Ribton Moorside signalised junction.

Traffic Surveys

- 5.38 Traffic surveys were undertaken on the local road network in February 2020 (prior to the Covid-19 travel restrictions imposed by Government). These have been used as the 2020 baseline traffic information, as shown at Figures 12 and 13 in Appendix E. Surveyed flows are not available for Fellview Health Centre access junction: traffic generation has been derived using

TRICS (Table 5.3 above) and assigned at the access as per the ahead proportions on Birks Road. Traffic does not need to be assigned further on the network as it is accounted for in the traffic surveys at Birks Road/Leconfield Street junction and along Leconfield Street (B5295). This is shown at Figures 14 and 15 in Appendix E.

- 5.39 Data was also extracted from CCC's West Cumbria Transport Model which uses SATURN software. Peak hour flows for 2019 (the model's base year) for the wider network were provided to TT. Baseline 2019 network flows are shown in Figures 16 and 17 in Appendix E.

Traffic Growth

- 5.40 Surveyed traffic flows have been projected to 2032 by applying factors extracted from DfT's TEMPro v7.2c program using the definitive NTEM v7.2 database and the current RTF 2018 dataset, in line with WebTAG M4 'Forecasting and Uncertainty'. Copeland 004 Middle Super Output Area (MSOA) has been selected as the defined area. "Minor" was selected as the road type. The future-year is to be taken as 2032.
- 5.41 Table 5.13 below summarises the local growth factors that will be applied to the baseline 2020 surveyed flows for each of the peak hours to derive the future year 2032 baseline flows.

Table 5.13: TEMPro Growth Factors for Local Network

	Period	
	AM Peak	PM Peak
2020 to 2032	1.0722	1.0637

- 5.42 Growth factors for the wider network were also extracted from TEMPRO and applied to the baseline 2019 flows extracted from the WCSM. Table 5.14 below shows the growth factors for different road types.

Table 5.14: TEMPro Growth Factors for Wider Network

		Period	
		AM Peak	PM Peak
2019 to 2032	Minor	1.0864	1.0793
	Trunk	1.1201	1.1128

- 5.43 Figures 18 and 19 in Appendix E show the future year 2032 baseline flows (surveyed + health centre + growth) during the AM and PM peaks; this is the No Development scenario for the local road network. Figures 20 and 21 in Appendix E show the current year 2022 baseline flows (surveyed + growth) during the AM and PM peaks for the wider network. Figures 22 and 23 in Appendix E show the future year 2032; this is the No Development scenario for the wider network.

- 5.44 Figures 24 and 25 in Appendix E show the 2032 With Development traffic flows (surveyed + health centre + growth + development generated) during the AM and PM peaks for the local network. Figures 26 and 27 in Appendix E show the 2032 With Development traffic flows (surveyed + growth + development generated) during the AM and PM peaks for the wider network.

6 OPERATIONAL ASSESSMENT

- 6.1 The ability of the local road network to accommodate the additional traffic generated by the proposed development has been assessed for the following junctions:
1. B5295 Leconfield Street/ Little Croft/ Area 1 Access mini roundabout.
 2. B5294 Bowthorn Road/ Area 3 Access priority junction.
 3. Birks Road/ Area 2 Access priority junction.
 4. B5295 Hensingham (Main Street/ Cleator Moor Road/ Moresby Road) mini roundabout.
 5. B5295 Keekle Terrace/ Dalzell Street priority junction.
 6. B5295 Leconfield Street/ B5294 Bowthorn Road priority junction.
 7. B5295 High Street/ Birks Road priority junction.
 8. B5295/ Jacktrees Road priority junction.
- 6.2 The following junctions on the wider network have also been assessed:
9. A595/ A597 Toll Bar roundabout
 10. A595/ B5306 Howgate roundabout
 11. A595/ Rosehill priority junction
 12. A595/ Inkerman Terrace/ B5295 Ribton Moorside signalised junction
 13. B5295 Hensingham Square (Main Street/ Egremont Road) mini roundabout
 14. A595/ B5295 Homewood Road roundabout
 15. A595/ Mirehouse Road signalised junction
 16. A595/ A5086 Howbank Road roundabout
- 6.3 Transport Research Laboratory's (TRL's) JUNCTIONS 9 and TRANSYT 15 computer programs and JCT's LINSIG v3 computer program have been used to assess the traffic impacts of the proposed development at the junctions listed above. Geometric parameters included in the models have been taken from Ordnance Survey digital mapping and on-site measurements. Diagrams showing geometric parameters for the A595 unsignalised junctions are included in Appendix F. Traffic flows for all scenarios have been taken from Figures 12-27 in Appendix E. The %HGV parameter has been calculated from the surveyed traffic flows.
- 6.4 All junctions have been modelled for the development peak hours, namely 08:00-09:00 and 17:00-18:00. For the AM peak the modelled hour is in line with the surveyed network peak across the assessment area. For the PM peak the greatest flows on the network are generally 16:00-17:00; except at Hensingham mini roundabout which was earlier due to school traffic.
- 6.5 JUNCTIONS 9 models report the Ratio of Flow to Capacity (RFC), the average number of vehicles queuing and the average delay per vehicle for all approaches during each 15-minute interval throughout the assessment period. An RFC less than 1.00 means the approach is

operating within capacity while an RFC greater than 1.00 means it is over capacity. RFC and queue values shown in the results tables below are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle during the busiest 15-minute period. The max queue is reported to the nearest whole number. Output files for all junctions and scenarios are included in Appendix G.

- 6.6 LINSIG v3 and TRANSYT 15 models report the Degree of Saturation (DoS), the Mean Max Queue (MMQ) and the average delay per vehicle for all approaches throughout the assessment period. The MMQ represents the average maximum number of vehicles queuing on any approach during each traffic signal cycle. Model Outputs are attached in Appendix G.

Junction 1 – B5295 Leconfield Street/ Little Croft/ Area 1 Access Mini Roundabout

- 6.7 The site access junction has been modelled as a 4-arm mini roundabout with Leconfield Street and Little Croft. Table 6.1 below shows the model results for the AM and PM peak hours in the surveyed year of 2020. The 2020 flows include the existing traffic from the industrial estate.

Table 6.1: B5295 Leconfield Street/ Estate Access, 2020 Existing

		AM Peak	PM Peak
Estate Access	Max RFC	0.05	0.09
	Max Q	0	0
	Aver Delay	5 secs	6 secs
B5295 Leconfield Street East	Max RFC	0.32	0.42
	Max Q	1	1
	Aver Delay	4 secs	5 secs
Little Croft	Max RFC	0.12	0.28
	Max Q	0	0
	Aver Delay	6 secs	7 secs
B5295 Leconfield Street West	Max RFC	0.61	0.78
	Max Q	2	3
	Aver Delay	11 secs	20 secs

- 6.8 The results show the mini roundabout operates well and within capacity. In the AM peak there are queues of less than 1pcu and delays of around 5 seconds for 3 out of 4 arms. Leconfield Street West has slightly longer queues of 2pcu and 11 second delay. In the PM peak, the situation is broadly similar, except on Leconfield Street West which has a longer queue at 3pcu. The model was found to produce similar queue levels to those observed in both the AM and PM peaks, therefore the model is considered to be validated. The observed queue data is attached in Appendix H.
- 6.9 Table 6.2 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.2: B5295 Leconfield Street/ Estate Access, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Estate Access	Max RFC	0.05	0.10	0.10	0.27
	Max Q	0	0	0	0
	Aver Delay	5 secs	6 secs	6 secs	8 secs
B5295 Leconfield Street East	Max RFC	0.34	0.37	0.45	0.48
	Max Q	1	1	1	1
	Aver Delay	4 secs	4 secs	5 secs	5 secs
Little Croft	Max RFC	0.13	0.13	0.31	0.34
	Max Q	0	0	0	1
	Aver Delay	6 secs	7 secs	8 secs	9 secs
B5295 Leconfield Street West	Max RFC	0.65	0.84	0.83	0.89
	Max Q	2	5	5	7
	Aver Delay	13 secs	26 secs	26 secs	36 secs

6.10 In the AM peak the results show that the mini roundabout operates with minimal queues and delays with the development in place for 3 out of 4 arms. On Leconfield Street West there is a MMQ of 5pcu and a delay of 26 seconds. In the PM peak, the mini roundabout again operates with minimal queues and delays with the development in place for 3 out of 4 arms. On Leconfield Street West there is a MMQ of 7pcu and a delay of 36 seconds. The delay per vehicle is significantly less than a minute on all arms in each peak with the full development in place and therefore no mitigation measures are required.

Junction 2 – B5294 Bowthorn Road/ Area 3 Access Priority Junction

6.11 The Area 3 access junction has been modelled as a priority ghost island junction within JUNCTIONS 9. Table 6.3 below shows the model results for the With Development scenario for each of the peak hours in 2032.

Table 6.3: B5294 Bowthorn Road/ Area 3 Access, 2032 With Dev

		AM Peak	PM Peak
		With Dev	With Dev
Area 3 Access	Max RFC	0.07	0.14
	Max Q	0	0
	Aver Delay	6 secs	6 secs
Bowthorn Road	Max RFC	0.14	0.04
	Max Q	0	0
	Aver Delay	6 secs	7 secs

6.12 The results show that the Area 3 access junction performs with minimal queues and delay in 2032 in both peaks with full development in place.

Junction 3 – Birks Road/ Area 2 Access Priority Junction

- 6.13 The Area 2 access junction has been modelled as a priority junction within JUNCTIONS 9. Table 6.4 below shows the model results for the With Development scenario for each of the peak hours in 2032.

Table 6.4: B5294 Bowthorn Road/ Area 2 Access, 2032 With Dev

		AM Peak	PM Peak
		With Dev	With Dev
Area 2 Access	Max RFC	0.03	0.23
	Max Q	0	0
	Aver Delay	8 secs	11 secs
Birks Road	Max RFC	0.03	0.01
	Max Q	0	0
	Aver Delay	6 secs	6 secs

- 6.14 The results show that the Area 2 access junction performs with minimal queues and delay in 2032 in both peaks with full development in place.

Junction 4 – B5295 Main Street/ B5295 Moresby Road, Hensingham Mini Roundabout

- 6.15 The Hensingham mini roundabout has been modelled as a 3-arm mini roundabout. Whitehaven Academy is located on Cleator Moor Road; the main entrance is located 250m north-east of the mini roundabout on Moresby Road and operates as a one-way system through the school, exiting onto Cleator Moor Road some 200m south-east of the mini roundabout.
- 6.16 The model has been validated with manual queue surveys carried out for the AM and PM peak hours. At first the model predicted significantly different queues to those observed on site, in particular for the AM peak; therefore, alternative calibration has been applied to each arm in order to correct the model. The intercept values have been altered so that the model predicts similar queues to those observed on site. Different alterations were needed for each of the peak hours; Table 6.5 below shows observed queue length during the busiest 15-minute period and the adjusted intercept required to validate the model. The observed queue data is attached in Appendix H.

Table 6.5: Observed Queues and Intercept Adjustments

	AM Peak		PM Peak	
	Observed Queue	Intercept Correction (pcu/hr)	Observed Queue	Intercept Correction (pcu/hr)
Cleator Moor Road	6	+70	2	+150
Main Street	6	-30	1	+150
Moresby Road	2	+150	1	+150

6.17 Table 6.6 below shows the results from the validated models for the AM and PM peak in the surveyed year, 2020. These are the surveyed flows and represent how the mini roundabout currently operates.

Table 6.6: Hensingham Mini Roundabout, 2020 Existing

		AM Peak	PM Peak
Cleator Moor Road	Max RFC	0.87	0.75
	Max Q	6	3
	Aver Delay	36 seconds	16 seconds
Main Street	Max RFC	0.87	0.61
	Max Q	6	2
	Aver Delay	40 seconds	11 seconds
Moresby Road	Max RFC	0.73	0.59
	Max Q	3	1
	Aver Delay	15 seconds	10 seconds

6.18 The results show that the Cleator Moor Road and Main Street arms operate with queues of 6pcu and delay of around 40 seconds in the morning peak. The junction operates with less queuing and delay in the evening peak.

6.19 The queues reported in the validated models are a good match to those observed on site and serve as a reliable base for future projections of the model.

6.20 Table 6.7 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032 using the validated models.

Table 6.7: Hensingham Mini Roundabout, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Cleator Moor Road	Max RFC	0.95	1.01	0.80	0.96
	Max Q	12	21	4	14
	Aver Delay	66 secs	104 secs	21 secs	62 secs
Main Street	Max RFC	0.95	1.12	0.66	0.70
	Max Q	11	46	2	2
	Aver Delay	71 secs	224 secs	13 secs	13 secs
Moresby Road	Max RFC	0.79	0.88	0.64	0.66
	Max Q	4	46	2	2
	Aver Delay	19 secs	32 secs	12 secs	13 secs

- 6.21 In the AM peak, the Cleator Moor Road arm in the No Development scenario is predicted to have a queue of 12 vehicles and a delay of 1 minute and 6 seconds per vehicle and Main Street is predicted to have a queue of 11 vehicles and a delay of 1 minute and 11 seconds per vehicle. The effect of the development is to increase the queues and delays on Cleator Moor Road by 9 vehicles and 38 seconds per vehicle, and on Main Street the queue is predicted to increase by 35 vehicles and the delay to increase by over 2½ minutes per vehicle.
- 6.22 In the PM peak, the Cleator Moor Road arm in the No Development scenario is predicted to have a queue of 4 vehicles and a delay of 21 seconds per vehicle. The Main Street arm and Moresby Road arm operate with minimal queues and delay in the No Development scenario. The effect of the development is to increase the queues and delay on Cleator Moor Road by 10pcu and 41 seconds per vehicle.
- 6.23 The proposed development increases delay by over 4 minutes per vehicle on the Main Street arm in the morning peak and a highway scheme is proposed to improve the operation of the junction. This is done by removing the existing hatched areas to increase the entry width on Cleator Moor Road from 3m to 4.5m, and on Main Street from 4m to 6.3m. The improvement scheme is shown in TT Drawing 784-B030277-0002-P01 in Appendix B. The effect of the proposed improvement is summarised at Table 6.8 below. The No Development scenario is shown for comparison purposes.

Table 6.8: Hensingham Mini Roundabout, 2032 No Dev vs With Dev with Improvement

		AM Peak		PM Peak	
		No Dev	With Dev With Improv.	No Dev	With Dev With Improv.
Cleator Moor Road	Max RFC	0.95	0.83	0.80	0.82
	Max Q	12	5	4	4
	Aver Delay	66 secs	26 secs	21 secs	19 secs
Main Street	Max RFC	0.95	1.0	0.66	0.63
	Max Q	11	18	2	2
	Aver Delay	71 secs	93 secs	13 secs	11 secs
Moresby Road	Max RFC	0.79	0.89	0.64	0.66
	Max Q	4	7	2	2
	Aver Delay	19 secs	36 secs	12 secs	13 secs

- 6.24 The effect of the highway scheme significantly improves the situation, even compared to the No Development scenario. In the AM peak it reduces delay from 66 secs to 26 secs on the Cleator Moor Road approach. On Main Street and Moresby Road approaches the queue and delay is increased with the development traffic but greatly reduced in comparison to the No Improvement scenario. In the PM peak, the improvement scheme reduces queueing and delay on the Cleator Moor Road and Main Street arms. For the Moresby Road arm, the situation is very similar to the No Development scenario. The No Development scenario compared to the With Development With Improvement scenario in the AM peak increases the queue by 7pcu and delay by 22 seconds on Main Street. On Moresby Road the queue increases by 3pcu and the delay by 17 seconds. These increases are not considered to be severe with respect to para 111 of NPPF.

Junction 5 – B5295 Keekle Terrace/ Dalzell Street Priority Junction

- 6.25 Dalzell Street junction has been modelled as a priority junction with Keekle Terrace. Table 6.9 below shows the model results for the surveyed year of 2020.

Table 6.9: B5295 Keekle Terrace/ Dalzell Street, 2020 Existing

		AM Peak	PM Peak
Dalzell Street (Left)	Max RFC	0.17	0.48
	Max Q	0	1
	Aver Delay	9 secs	14 secs
Dalzell Street (Right)	Max RFC	0.09	0.21
	Max Q	0	0
	Aver Delay	12 secs	17 secs
Keekle Terrace Southbound	Max RFC	0.19	0.44
	Max Q	0	2
	Aver Delay	6 secs	7 secs

- 6.26 The results show that the Keekle Terrace/ Dalzell Street junction performs with minimal queues and delay in 2020 in both peaks.

6.27 Table 6.10 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.10: B5295 Keekle Terrace/Dalzell Street, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Dalzell Street (Left)	Max RFC	0.19	0.39	0.54	0.6
	Max Q	0	1	1	2
	Aver Delay	9 secs	12 secs	16 secs	21 secs
Dalzell Street (Right)	Max RFC	0.10	0.11	0.25	0.31
	Max Q	0	0	0	1
	Aver Delay	14 secs	15 secs	20 secs	28 secs
Keekle Terrace Southbound	Max RFC	0.22	0.25	0.51	0.58
	Max Q	1	1	2	3
	Aver Delay	6 secs	5 secs	8 secs	9 secs

6.28 The results show the junction continues to operate with minimal queues and delays with the development in place. There is an additional 1 second delay to drivers turning right out of Dalzell Street in the AM peak and an additional 8 second delay in the PM peak. For drivers turning left out of Dalzell Street there is an additional delay of 3 seconds in the AM peak and an additional 5 second delay in the PM peak. The delays for the southbound ahead movement on Keekle Terrace are very low in both peaks. No mitigation measures are required as a result of the proposed development.

Junction 6 – B5295 Leconfield Street/ B5294 Bowthorn Road

6.29 The Bowthorn Road junction has been modelled as a crossroads arrangement with Crossings Close, a minor residential street opposite. Table 6.11 below shows the model results for the surveyed year of 2020.

Table 6.11: B5295 Leconfield Street/ B5294 Bowthorn Road, 2020 Existing

		AM Peak	PM Peak
Bowthorn Rd (Left/Ahead)	Max RFC	0.16	0.15
	Max Q	0	0
	Aver Delay	8 secs	8 secs
Bowthorn Rd (Right/Ahead)	Max RFC	0.25	0.23
	Max Q	0	0
	Aver Delay	13 secs	16 secs
Leconfield Street West	Max RFC	0.00	0.00
	Max Q	0	0
	Aver Delay	0 secs	0 secs
Crossings Close	Max RFC	0.00	0.00
	Max Q	0	0
	Aver Delay	0 secs	0 secs
Leconfield Street East	Max RFC	0.10	0.35
	Max Q	0	1
	Aver Delay	5 secs	6 secs

6.30 The results show that the Bowthorn Road junction performs with minimal queues and delay in 2020 in both peaks.

6.31 Table 6.12 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.12: B5295 Leconfield Street/ B5294 Bowthorn Road, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Bowthorn Rd (Left/Ahead)	Max RFC	0.17	0.24	0.17	0.28
	Max Q	0	0	0	0
	Aver Delay	8 secs	11 secs	9 secs	14 secs
Bowthorn Rd (Right/Ahead)	Max RFC	0.27	0.42	0.26	0.56
	Max Q	0	1	0	1
	Aver Delay	14 secs	20 secs	18 secs	33 secs
Leconfield Street West	Max RFC	0.00	0.00	0.00	0.00
	Max Q	0	0	0	0
	Aver Delay	0 secs	0 secs	0 secs	0 secs
Crossings Close	Max RFC	0.00	0.00	0.00	0.00
	Max Q	0	0	0	0
	Aver Delay	0 secs	0 secs	0 secs	0 secs
Leconfield Street East	Max RFC	0.11	0.19	0.39	0.50
	Max Q	0	1	1	2
	Aver Delay	5 secs	5 secs	7 secs	7 secs

6.32 The results show the junction continues to operate with minimal queues and delays with the development in place. The largest increase in delay on any arm in either peak is 15 seconds on the Bowthorn Road right/ ahead arm in the evening peak. No mitigation measures are required as a result of the proposed development.

Junction 7 – B5295 High Street/ Birks Road Priority Junction

6.33 The Birks Road junction has been modelled as a priority junction with High Street. The pelican pedestrian crossing on High Street has been included. Very few pedestrians were observed calling the pedestrian phase at the crossing during the AM and PM peak hours, but for the purposes of a robust assessment a flow of 60 pedestrians/ hour has been used. Table 6.13 below shows the model results for the surveyed year of 2020.

Table 6.13: B5295 High Street/ Birks Road, 2020 Existing

		AM Peak	PM Peak
Birks Road (Left/Right)	Max RFC	0.26	0.37
	Max Q	0	1
	Aver Delay	11 secs	15 secs
High Street Westbound (Right/Ahead)	Max RFC	0.11	0.19
	Max Q	0	1
	Aver Delay	5 secs	5 secs
High Street Eastbound (Left/Ahead)	Max RFC	0.30	0.39
	Max Q	0	1
	Aver Delay	3 secs	4 secs

6.34 The results show that the Birks Road junction performs with minimal queues and delay in 2020 in both peak hours.

6.35 Table 6.14 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.14: B5295 High Street/ Birks Road, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Birks Road (Left/Right)	Max RFC	0.29	0.31	0.41	0.71
	Max Q	0	0	1	2
	Aver Delay	12 secs	13 secs	16 secs	38 secs
High Street Westbound (Right/Ahead)	Max RFC	0.12	0.17	0.22	0.22
	Max Q	0	0	1	1
	Aver Delay	5 secs	5 secs	5 secs	5 secs
High Street Eastbound (Left/Ahead)	Max RFC	0.32	0.36	0.41	0.44
	Max Q	0	1	1	1
	Aver Delay	3 secs	4 secs	4 secs	4 secs

6.36 The results show the junction continues to operate with minimal queues and delays with the development in place. The largest increase in delay on any arm in either peak is 22 seconds on the Birks Road left/ right arm in the evening peak but many of the other arms experience zero or negligible effects in both peaks. No mitigation measures are required as a result of the proposed development.

Junction 8 – B5295/ Jacktrees Crossroads

6.37 The Jacktrees Road junction has been modelled as a crossroads arrangement with North Street, a minor residential street opposite. Table 6.15 below shows the model results for the surveyed year of 2020.

Table 6.15: B5295/ Jacktrees Road, 2020 Existing

		AM Peak	PM Peak
Jacktrees Road (Left/Ahead)	Max RFC	0.21	0.45
	Max Q	0	1
	Aver Delay	7 secs	10 secs
Jacktrees Road (Right/Ahead)	Max RFC	0.04	0.03
	Max Q	0	0
	Aver Delay	9 secs	11 secs
High Street (Westbound)	Max RFC	0.00	0.00
	Max Q	0	0
	Aver Delay	0 secs	0 secs
North Street (All)	Max RFC	0.00	0.00
	Max Q	0	0
	Aver Delay	0 secs	0 secs
High Street (Eastbound)	Max RFC	0.40	0.57
	Max Q	1	2
	Aver Delay	8 secs	10 secs

6.38 The results show that the Jacktrees Road junction performs with minimal queues and delay in 2020 in both peaks.

6.39 Table 6.16 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.16: Jacktrees Road/High Street, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Jacktrees Road (Left/Ahead)	Max RFC	0.23	0.30	0.48	0.50
	Max Q	0	0	1	1
	Aver Delay	7 secs	8 secs	10 secs	11 secs
Jacktrees Road (Right/Ahead)	Max RFC	0.04	0.04	0.04	0.04
	Max Q	0	0	0	0
	Aver Delay	10 secs	10 secs	12 secs	13 secs
High Street (Westbound)	Max RFC	0.00	0.00	0.00	0.00
	Max Q	0	0	0	0
	Aver Delay	0 secs	0secs	0 secs	0 secs
North Street (All)	Max RFC	0.00	0.00	0.00	0.00
	Max Q	0	0	0	0
	Aver Delay	0 secs	0 secs	0 secs	0 secs
High Street (Eastbound)	Max RFC	0.44	0.47	0.62	0.74
	Max Q	1	1	2	4
	Aver Delay	9 secs	9 secs	12 secs	17 secs

6.40 The results show the junction continues to operate with minimal queues and delays with the development in place. The largest increase in delay on any arm in either peak is 5 seconds on the High Street eastbound arm in the evening peak but many of the other arms experience zero or negligible effects in both peaks. No mitigation measures are required as a result of the proposed development.

Junction 9 – A595/ A597/ B5306/ Windscales Ave – Toll Bar Roundabout

6.41 The roundabout has been modelled using TRL's JUNCTIONS 9. Table 6.17 below shows the model results for the surveyed year of 2022.

Table 6.17: A595/ A597/ B5306/ Windscales Ave, 2022 Existing Arrangement

		AM Peak	PM Peak
A597 North	Max RFC	0.36	0.49
	Max Q	1	1
	Aver Delay	4 secs	6 secs
A595 East	Max RFC	0.65	0.59
	Max Q	2	1
	Aver Delay	5 secs	4 secs
Windscales Avenue	Max RFC	0.02	0.05
	Max Q	0	0
	Aver Delay	5 secs	5 secs
B5306	Max RFC	0.45	0.37
	Max Q	1	1
	Aver Delay	7 secs	6 secs
A595W	Max RFC	0.48	0.56
	Max Q	1	1
	Aver Delay	4 secs	4 secs

6.42 The results show that the junction performs well within capacity with minimal queues and delays. The model is a good base for future projections.

6.43 Table 6.18 below shows the model results in 2032, with and without the proposed development.

Table 6.18: A595/ A597/ B5306/ Windscales Ave, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
A597 North	Max RFC	0.39	0.44	0.54	0.55
	Max Q	1	1	1	1
	Aver Delay	5 secs	5 secs	6 secs	7 secs
A595 East	Max RFC	0.70	0.72	0.64	0.64
	Max Q	2	3	2	2
	Aver Delay	6 secs	6 secs	5 secs	5 secs
Windscales Avenue	Max RFC	0.02	0.02	0.06	0.06
	Max Q	0	0	0	0
	Aver Delay	6 secs	6 secs	6 secs	6 secs
B5306	Max RFC	0.51	0.53	0.41	0.42
	Max Q	1	1	1	1
	Aver Delay	9 secs	9 secs	7 secs	7 secs
A595 West	Max RFC	0.52	0.53	0.60	0.64
	Max Q	1	1	2	2
	Aver Delay	4 secs	4 secs	4 secs	5 secs

6.44 The results show that the junction will continue to operate well within capacity in 2032 with minimal queues and delays in both the No Development and With Development scenarios. No mitigation measures are required for highway capacity reasons.

Junction 10 – A595/ B5306/ Low Moorsby – Howgate Roundabout

6.45 Table 6.19 below shows the model results for the surveyed year of 2022.

Table 6.19: A595 Howgate Roundabout, 2022 Existing Arrangement

		AM Peak	PM Peak
B5306	Max RFC	0.02	0.03
	Max Q	0	0
	Aver Delay	4 secs	4 secs
Low Moorsby	Max RFC	0.0	0.1
	Max Q	0	0
	Aver Delay	0 secs	6 secs
A595 Southwest	Max RFC	0.59	0.68
	Max Q	2	2
	Aver Delay	5 secs	7 secs
A595 Northeast	Max RFC	0.44	0.44
	Max Q	1	1
	Aver Delay	3 secs	3 secs

6.46 The results show that the junction performs well within capacity with minimal queues and delays. The model is a good base for future projections.

6.47 Table 6.20 below shows the model results in 2032, with and without the proposed development.

Table 6.20: A595 Howgate Roundabout, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
B5306	Max RFC	0.02	0.02	0.03	0.03
	Max Q	0	0	0	0
	Aver Delay	4 secs	4 secs	4 secs	4 secs
Low Moorsby	Max RFC	0.0	0.0	0.12	0.12
	Max Q	0	0	0	0
	Aver Delay	0 secs	0 secs	6 secs	6 secs
A595 Southwest	Max RFC	0.63	0.64	0.73	0.77
	Max Q	2	2	3	3
	Aver Delay	6 secs	6 secs	8 secs	10 secs
A595 Northeast	Max RFC	0.47	0.50	0.47	0.47
	Max Q	1	1	1	1
	Aver Delay	3 secs	3 secs	3 secs	3 secs

6.48 The results show that the junction will continue to operate well within capacity in 2032 with minimal queues and delays in both the No Development and With Development scenarios. No mitigation measures are required for highway capacity reasons.

6.49 As discussed below in the A595/ Rosehill junction assessment (Junction 11), implementation of the ID 43 scheme would attract vehicles to use the A595 Howgate roundabout via the Low Moorsby approach arm. This has been tested by adding the diverted traffic onto this approach

to turn right to the A595. In the 2032 AM Peak With Development scenario 100 vehicles have been added onto the movement and in the PM peak 88 vehicles have been added.

6.50 Table 6.21 below shows the model results in 2032 With Development scenario assuming the ID 43 scheme is implemented and 75% of drivers divert away from Rosehill. The table also shows the No Development results without the scheme implementation for comparison.

Table 6.21: A595 Howgate Roundabout, 2032 Existing Arrangement & ID 43 Scheme Mitigation

		AM Peak		PM Peak	
		No Dev Existing	With Dev With ID 43	No Dev Existing	With Dev With ID 43
B5306	Max RFC	0.02	0.02	0.03	0.03
	Max Q	0	4	0	0
	Aver Delay	4 secs	0 secs	4 secs	4 secs
Low Moresby	Max RFC	0.0	0.16	0.12	0.25
	Max Q	0	0	0	0
	Aver Delay	0 secs	9 secs	6 secs	7 secs
A595 Southwest	Max RFC	0.63	0.67	0.73	0.80
	Max Q	2	2	3	4
	Aver Delay	6 secs	7 secs	8 secs	11 secs
A595 Northeast	Max RFC	0.47	0.50	0.47	0.47
	Max Q	1	1	1	1
	Aver Delay	3 secs	3 secs	3 secs	3 secs

6.51 The results show that with the implementation of the ID 43 scheme, the increase in traffic at the A595 Howgate roundabout will not have a material impact on its operations. The additional traffic on the Low Moresby Road approach will have negligible increase in queues and delays on that approach whilst it will only marginally increase the queue by 1pcu on the A595 south-west approach in the PM peak and with a 3 sec delay increase. The results therefore demonstrate the roundabout can cope with the additional traffic demands arising from the ID 43 scheme.

Junction 11 – A595/ Rosehill – Priority Junction

6.52 Table 6.22 below shows the model results for the surveyed year of 2022.

Table 6.22: A595/ Rosehill Priority Junction, 2022 Existing Arrangement

		AM Peak	PM Peak
Rosehill Left Turn	Max RFC	1.02	0.29
	Max Q	2	0
	Aver Delay	7m 58s	46 secs
Rosehill Right Turn	Max RFC	1.00	0.82
	Max Q	8	3
	Aver Delay	3m 44s	2m 29s
A595 South Right Turn	Max RFC	0.11	0.02
	Max Q	0	0
	Aver Delay	9 secs	9 secs

6.53 The results show that in the AM peak hour the junction operates over capacity with long delays on the Rosehill approach. It is very difficult for drivers to turn right out from Rosehill to head northbound as the ahead flows on the A595 are high (in excess of 800pcu per hour in each direction). In the PM peak the junction does perform within capacity with a queue of no more than 3pcu but with a delay of 2½ mins for right turning vehicles. The model is considered a good base for future projections.

6.54 Table 6.23 below shows the model results in 2032, with and without the proposed development.

Table 6.23: A595/ Rosehill Priority Junction, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Rosehill Left Turn	Max RFC	1.51	1.97	1.34	2.21
	Max Q	3	4	6	10
	Aver Delay	20m 57s	32m 16s	7m 47s	32m 13s
Rosehill Right Turn	Max RFC	1.47	1.90	1.32	2.13
	Max Q	24	37	14	37
	Aver Delay	10m 7s	23m 8s	8m 8s	28m 39s
A595 South Right Turn	Max RFC	0.13	0.13	0.03	0.03
	Max Q	0	0	0	0
	Aver Delay	10 secs	11 secs	9 secs	9 secs

6.55 The results show that in the AM peak No Development scenario the junction operates over capacity with significant delays on the Rosehill approach, nearly 21 mins for right turning vehicles. With the addition of the development generated traffic the delay increases by over 11 mins. Its similar in the PM peak scenario, with a delay of around 8 mins in the No Development scenario but with the addition of the development generated traffic the delays increase significantly to 32 mins.

6.56 It is clear that in the AM and PM peaks in the No Development scenario the junction is predicted to perform under significant stress with long delays for drivers on Rosehill and the problem is exacerbated with the addition of development generated traffic. As discussed at para 2.26 the Copeland Transport Improvement Study, prepared by WSP on behalf of CCC and CBC, a highway safety improvement scheme has been identified (ID 43). The proposed development has been listed as contributor towards the total approximate cost of £338,700. It is understood the scheme will promote an alternative route for drivers to access the A595 as shown below at Image 6.1 where drivers will be sign posted to use Gallows Lonning and Low Moresby (yellow route) to access the A595 via the A595/ Howgate roundabout junction. In addition to the directional signs, the provision of a footway on Low Moresby would be required an enhanced widening scheme to formalise this route as the most attractive option to access the A595. Drivers travelling southbound on the A595 towards Rosehill would remain on the red route as the left turn movement off the A595 does not conflict with opposing traffic. Details of the scheme are included in Appendix I.

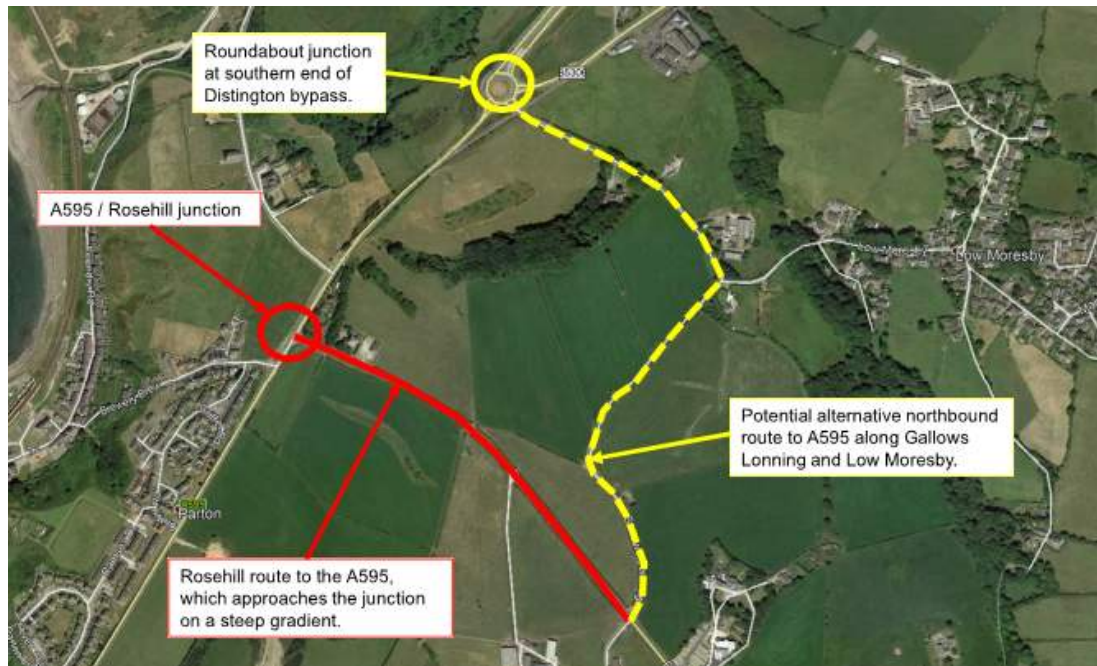


**Image 6.1 – ID 43 A595/ Rosehill Alternative Routing
(Copeland Transport Improvement Study)**

- 6.57 It is difficult to predict the exact numbers of drivers that would divert to use the yellow route, therefore assigning 75% of drivers to the yellow route has been carried out, retaining a proportion (25%) continuing to remain on the red route. In the 2032 AM Peak With Dev scenario that would equate to 100 drivers using the yellow route and 33 using the red route. In the 2032 PM peak that would equate to 88 drivers using the yellow route and 30 using the red route.
- 6.58 Table 6.24 below shows the model results in 2032 With Development scenario assuming the ID 43 scheme is implemented and 75% of drivers divert away from Rosehill. The table also shows the No Development results without the scheme implementation for comparison.

Table 6.24: A595/ Rosehill Priority Junction, 2032 Existing Arrangement & ID 43 Scheme Mitigation

		AM Peak		PM Peak	
		No Dev Existing	With Dev With ID 43	No Dev Existing	With Dev With ID 43
Rosehill Left Turn	Max RFC	1.51	0.05	1.34	0.12
	Max Q	3	0	6	0
	Aver Delay	20m 57s	13 secs	7m 47s	14 secs
Rosehill Right Turn	Max RFC	1.47	0.47	1.32	0.56
	Max Q	24	1	14	1
	Aver Delay	10m 7s	1m 29s	8m 8s	2m 12s
A595 South Right Turn	Max RFC	0.13	0.13	0.03	0.03
	Max Q	0	0	0	0
	Aver Delay	10 secs	11 secs	9 secs	9 secs

- 6.59 The results show that with the implementation of the ID 43 scheme, and assuming 75% of right turning vehicles divert to use the Low Moresby route, the delays at the Rosehill junction will be significantly reduced by over 20 mins in the AM peak and over 7 mins in the PM peak. The scheme may attract even more drivers to use the Low Moresby route as they become familiar with the alternative option.
- 6.60 The reassignment impacts of the ID 43 scheme with additional traffic using the Howgate roundabout has been considered in the capacity assessment for Howgate roundabout as presented in Junction 10 above.

Junction 12 – A595/ Inkerman Terrace & A595/ B5295 Ribton Moorside – Traffic Signals

- 6.61 The A595/ Inkerman Terrace and A595/ B5295 Ribton Moorside traffic signal junctions have been assessed using the TRANSYT/15 program. The junctions are located some 200m apart but operate under the same controller so in the model each junction has its own “stages in stream”. The Cell Transmission Model (CTM) facility has been used where appropriate to accurately model the effects of any blocking back from one junction to the other and also to accurately model the flared approaches. The saturation flows were determined by inputting the geometric lane parameters from OS mapping into the TRANSYT program which uses TRL’s RR67 methodology.
- 6.62 The phasing, stage sequence, minimum green times and intergreen times have been extracted from the controller specification supplied by NH. The Ribton Moorside junction operates under two stages; the A595 followed by Ribton Moorside. The Inkerman Terrace junction operates upto 3 stages; the A595, followed by the demand triggered A595 southbound with indicative right turn arrow stage and finally the Inkerman Terrace stage. The traffic flows supplied from the SATURN model indicate the southbound right turn flow is relatively low, therefore it is assumed the indicative arrow stage will typically not be called each cycle therefore has been omitted from the modelling.
- 6.63 The junctions operate under MOVA control, therefore the TRANSYT cycle time optimiser was initially run to select the best cycle time for performance, then the model was optimised. The results were reviewed and manual adjustments to the modelled green splits were undertaken to equally balance and distribute the queues and delays.
- 6.64 Table 6.25 below shows the model results for 2022.

Table 6.25: A595 Inkerman Terrace/ B5295 Ribton Moorside, 2022 Existing Arrangement

			AM Peak	PM Peak
Traffic Stream & Road Name		A595/ Inkerman Terrace		
16/1	A595 Southbound N/S (for A595 to Barrow and B5295)	Max RFC Max Q Av Delay	83% 11 29 secs	70% 8 20 secs
16/2	A595 Southbound O/S (for Whitehaven town centre)	Max RFC Max Q Av Delay	17% 1 13 secs	9% 1 11 secs
6/1	A595 Northbound Left Turn Give-way (for Whitehaven town centre)	Max RFC Max Q Av Delay	85% 7 19 secs	75% 7 12 secs
5/1	A595 Northbound O/S (for A59 to Workington)	Max RFC Max Q Av Delay	71% 5 17 secs	81% 12 15 secs
12/1	Inkerman Terrace Left Turn	Max RFC Max Q Av Delay	6% 0 13 secs	9% 0 13 secs
13/1 + 15/1	Inkerman Terrace Right Turn	Max RFC Max Q Av Delay	67% 9 18 secs	79% 11 25 secs
Traffic Stream & Road Name		A595/ B5295 Ribton Moorside		
9/1	A595 Southbound Left Turn Give-way (for Cleator Moor, B5295)	Max RFC Max Q Av Delay	61% 3 8 secs	78% 6 19 secs
10/1	A595 Southbound O/S (for A595 to Barrow)	Max RFC Max Q Av Delay	84% 16 36 secs	63% 10 16 secs
1/1	Ribton Moorside Left Turn	Max RFC Max Q Av Delay	0% 0 0 secs	0% 0 0 secs
1/2 + 8/1	Ribton Moorside Right Turn	Max RFC Max Q Av Delay	66% 7 22 secs	69% 6 27 secs
2/1	A595 Northbound N/S (for Whitehaven town centre)	Max RFC Max Q Av Delay	32% 3 12 secs	25% 2 9 secs
2/2	A595 Northbound O/S (for A595 to Workington)	Max RFC Max Q Av Delay	55% 6 15 secs	64% 8 14 secs
		Cycle Time	64 secs	64 secs
		Network PI	521.12	484.89

- 6.65 The results show that the junction operates well and within capacity in the AM and PM peaks. In both peak periods the queueing and delay does not extend back to either junction. The model is considered a good base for future projections.
- 6.66 Table 6.26 below shows the model results in 2032, with and without the proposed development.

Table 6.26: A595 Inkerman Terrace/ B5295 Ribton Moorside, 2032 Existing Arrangement

			AM Peak		PM Peak	
			No Dev	With Dev	No Dev	With Dev
Traffic Stream & Road Name			A595/ Inkerman Terrace			
16/1	A595 Southbound N/S (for A595 to Barrow and B5295)	Max RFC Max Q Av Delay	80% 11 24 secs	84% 12 27 secs	63% 8 16 secs	63% 8 16 secs
16/2	A595 Southbound O/S (for Whitehaven town centre)	Max RFC Max Q Av Delay	17% 1 12 secs	17% 1 12 secs	8% 1 9 secs	8% 1 9 secs
6/1	A595 Northbound Left Turn Give-way (for Whitehaven town centre)	Max RFC Max Q Av Delay	92% 11 32 secs	94% 13 39 secs	81% 8 15 secs	89% 11 26 secs
5/1	A595 Northbound O/S (for A59 to Workington)	Max RFC Max Q Av Delay	68% 8 25 secs	69% 8 25 secs	73% 3 10 secs	76% 5 13 secs
12/1	Inkerman Terrace Left Turn	Max RFC Max Q Av Delay	8% 0 14 secs	8% 0 13 secs	11% 0 19 secs	11% 0 19 secs
13/1 + 15/1	Inkerman Terrace Right Turn	Max RFC Max Q Av Delay	80% 12 26 secs	88% 14 34 secs	90% 26 2m 5s	90% 26 2m 11s
Traffic Stream & Road Name			A595/ B5295 Ribton Moorside			
9/1	A595 Southbound Left Turn Give-way (for Cleator Moor, B5295)	Max RFC Max Q Av Delay	66% 4 10 secs	80% 6 17 secs	76% 7 19 secs	78% 8 20 secs
10/1	A595 Southbound O/S (for A595 to Barrow)	Max RFC Max Q Av Delay	85% 13 26 secs	85% 13 26 secs	74% 13 33 secs	68% 10 23 secs
1/1	Ribton Moorside Left Turn	Max RFC Max Q Av Delay	0% 0 0 secs	0% 0 0 secs	0% 0 0 secs	0% 0 0 secs
1/2 + 8/1	Ribton Moorside Right Turn	Max RFC Max Q Av Delay	77% 8 29 secs	82% 9 33 secs	59% 6 21 secs	83% 10 36 secs
2/1	A595 Northbound N/S (for Whitehaven town centre)	Max RFC Max Q Av Delay	33% 3 11 secs	33% 3 11 secs	30% 3 12 secs	28% 3 10 secs
2/2	A595 Northbound O/S (for A595 to Workington)	Max RFC Max Q Av Delay	56% 6 13 secs	56% 6 13 secs	77% 12 22 secs	70% 10 17 secs
Cycle Time			64 secs	64 secs	70 secs	70 secs
Network PI			564.78	672.72	736.15	801.06

6.67 In the AM peak No Development scenario the junctions are predicted to work well in the most part, with the A595 northbound left turn to Inkerman Terrace operating at 92% with a queue of 11pcu and 32 sec delay. With the addition of the development generated traffic the A595 northbound left turn increases to 94% with only 2pcu increase in queue and 7 sec delay increase. On the other approaches the largest increase in queue is 2pcu and with no more than an 8 sec increase in delay.

6.68 In the PM peak No Development scenario the junctions are predicted to work well in the most part, with the Inkerman Terrace right turn lane operating at 90% with a queue of 26pcu and 2 min 5 sec delay. With the addition of the development generated traffic the Inkerman Terrace right turn lane has a 6 sec delay increase with no additional queuing vehicles. On the other approaches the largest increase in queue is 4pcu and with no more than a 15 sec increase in delay.

6.69 The results demonstrate that the increases in queues and delays as a result of the development generated traffic are minor and the junctions will continue to operate within capacity in 2032. No highway improvements are therefore required for capacity reasons.

Junction 13 –B5295 Main Street/ B5295 – Hensingham Square Mini Roundabout

6.70 Table 6.27 below shows the model results for the surveyed year of 2022.

Table 6.27: Hensingham Square Mini Roundabout, 2022 Existing Arrangement

		AM Peak	PM Peak
B5295 Main Street	Max RFC	0.79	0.79
	Max Q	4	4
	Aver Delay	24 secs	26 secs
B5295 South	Max RFC	0.48	0.38
	Max Q	1	1
	Aver Delay	7 secs	6 secs
B5295 North	Max RFC	0.58	0.71
	Max Q	1	2
	Aver Delay	11 secs	15 secs

6.71 The results show that the junction currently performs within capacity with little queuing and delays. The model is a good base for future projections.

6.72 Table 6.28 below shows the model results in 2032, with and without the proposed development.

Table 6.28: Hensingham Square Mini Roundabout, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
B5295 Main Street	Max RFC	0.84	0.89	0.84	1.01
	Max Q	5	7	5	19
	Aver Delay	31 secs	40 secs	34 secs	1m 47s
B5295 South	Max RFC	0.52	0.53	0.41	0.44
	Max Q	1	1	1	1
	Aver Delay	7 secs	8 secs	6 secs	7 secs
B5295 North	Max RFC	0.62	0.75	0.76	0.78
	Max Q	2	3	3	4
	Aver Delay	12 secs	18 secs	18 secs	20 secs

6.73 The results show in the AM peak hour the junction operates within capacity. In the No Development scenario the biggest queue is 5pcu with a 31 sec delay on the Main Street approach and with the addition of the development generated traffic the queue increases to 7pcu and with an additional 9 sec delay. In the PM peak No Development scenario, a queue of 5pcu and 34 sec delay is predicted on the Main Street approach and with the addition of the development generated traffic the queue increases to 19pcu with an additional delay of 1 min 13 secs.

6.74 A potential improvement scheme has been drawn up as shown at TT Drawing B030277-0001-P01 attached in Appendix B. It is proposed to slightly widen the carriageway into the footway on the northern side of the roundabout with a minor adjustment to the kerb radii at Church Lane. Together with widening, the splitter island and central road markings on Main Street will be moved slightly to the north to increase the entry width and flare length. The inclusion of 2 road markings will guide drivers to use the nearside lane to turn left and offside lane to turn right, facilitating 2pcu queuing side by side for a depth of 2pcu from the give-way line and the results of the improvement scheme are shown below at Table 6.29. For comparison purposes the No Development results with the existing arrangement have been reported alongside.

Table 6.29: Hensingham Square Mini Roundabout, 2032 Existing & Improved Arrangement

		AM Peak		PM Peak	
		No Dev Existing	With Dev Mitigation	No Dev Existing	With Dev Mitigation
B5295 Main Street	Max RFC	0.84	0.78	0.84	0.89
	Max Q	5	4	5	7
	Aver Delay	31 secs	21 secs	34 secs	39 secs
B5295 South	Max RFC	0.52	0.52	0.41	0.44
	Max Q	1	1	1	1
	Aver Delay	7 secs	8 secs	6 secs	7 secs
B5295 North	Max RFC	0.62	0.77	0.76	0.80
	Max Q	2	3	3	4
	Aver Delay	12 secs	20 secs	18 secs	22 secs

6.75 The results show that with the improvement scheme in place the performance of the B5295 Main Street approach will operate noticeably better than with no mitigation. In comparison to the No Development scenario, in the AM peak the queue will reduce from 5pcu to 4pcu with a 10 sec reduction in average delay. In the PM peak the queue will only be 2pcu longer and with an additional 5 sec delay. The results therefore demonstrate that the proposed improvement scheme will mitigate the impacts arising from the additional traffic generated by the proposed development.

Junction 14 – A595/ B5295 Egremont Road/ Homewood Road Roundabout

6.76 Table 6.30 below shows the model results for the surveyed year of 2022.

Table 6.30: A595/ B5295 Egremont Road/ Homewood Road, 2022 Existing Arrangement

		AM Peak	PM Peak
Homewood Road	Max RFC	0.53	0.55
	Max Q	1	1
	Aver Delay	11 secs	11 secs
A595 Egremont Road	Max RFC	1.01	1.05
	Max Q	27	46
	Aver Delay	79 secs	117 secs
A595 North	Max RFC	0.78	0.62
	Max Q	4	2
	Aver Delay	16 secs	8 secs
B5295 Egremont Road	Max RFC	0.36	0.23
	Max Q	1	0
	Aver Delay	6 secs	5 secs

6.77 The results show that in the AM peak the A595 Egremont Road northbound approach is operating at capacity with a 27pcu queue and 79 seconds delay. In the PM peak this approach operates under more strain with a 46pcu queue and nearly 2 minute delay. The model is considered a good base for future projections.

6.78 Table 6.31 below shows the model results in 2032, with and without the proposed development.

Table 6.31: A595/ B5295 Egremont Road/ Homewood Road, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
Homewood Road	Max RFC	0.59	0.62	0.61	0.69
	Max Q	1	2	2	2
	Aver Delay	13 secs	14 secs	13 secs	16 secs
A595 Egremont Road	Max RFC	1.09	1.13	1.13	1.14
	Max Q	65	91	91	97
	Aver Delay	2m 44s	3m 56s	3m 49s	4m 8s
A595 North	Max RFC	0.84	0.85	0.67	0.67
	Max Q	5	6	2	2
	Aver Delay	21 secs	23 secs	9 secs	9 secs
B5295 Egremont Road	Max RFC	0.37	0.41	0.26	0.26
	Max Q	1	1	0	0
	Aver Delay	7 secs	8 secs	5 secs	5 secs

6.79 The results show that in the AM Peak No Development scenario the A595 northbound approach will operate with a queue of 65pu and 2¾ min delay whilst all other approached will operate well. With the addition of the development generated traffic the queue on the A595 northbound approach increases by 26pcu with an addition 1¼ min delay.

- 6.80 In the PM peak hour it is a similar story with the A595 northbound approach operating over capacity with a queue of 91pcu and over a 3¾ min delay in the No Development scenario. With the addition of the development generated traffic the queue on the A595 northbound approach increases by 6pcu with an addition 19 secs delay.
- 6.81 As discussed at para 2.26 the Copeland Transport Improvement Study, prepared by WSP on behalf of CCC and CBC a highway safety improvement scheme has been identified (ID 33). The proposed development has been listed as a contributor towards the total approximate cost of between £500,000 to £1 million to implement the improvement scheme. WSP identified two options, one with a bypass lane for A595 northbound traffic (option 2) and option 1 for a 2-lane approach on the A595 northbound as shown at Image 6.2 below. Details of the scheme are included in Appendix I.

ID33 Homewood Road roundabout
Option 1 – Draft layout of potential improvement

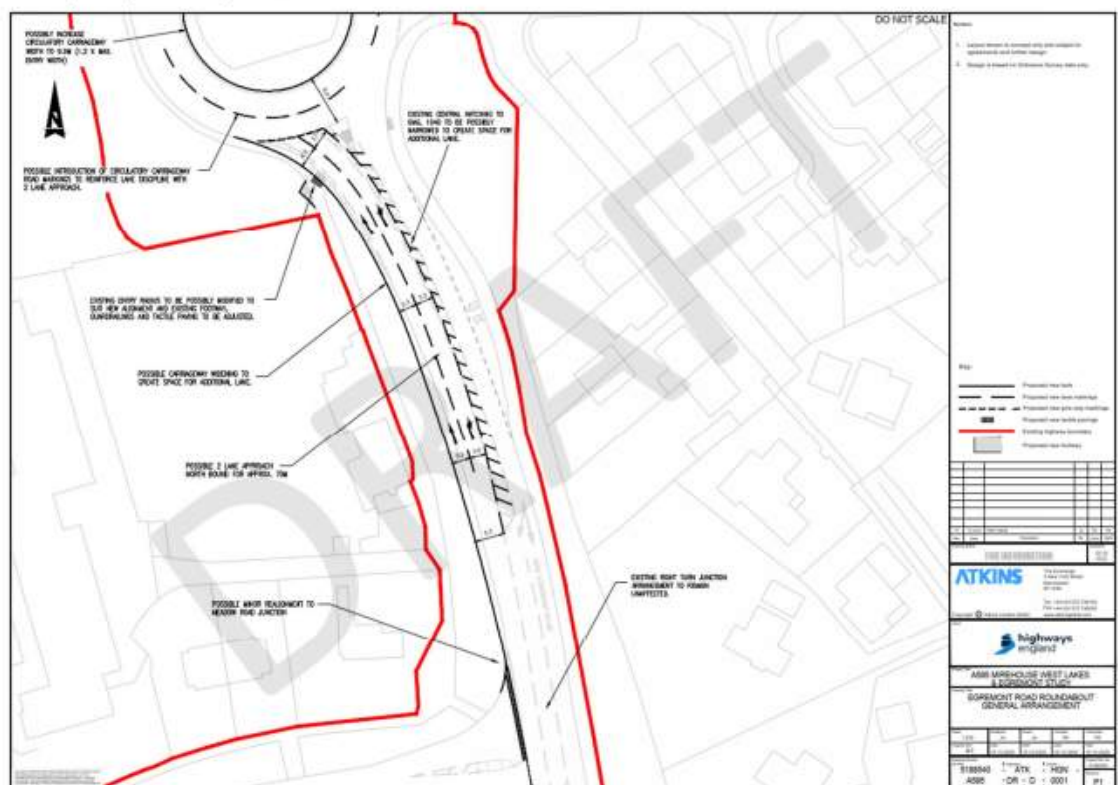


Image 6.2 – ID 33 A595 Homewood Road Roundabout Improvement
(Copeland Transport Improvement Study)

- 6.82 For the purpose of this report, it has been assumed that the Option 1 proposal would be chosen and its benefit on the performance of the roundabout is shown below at Table 6.32. For comparison purposes the No Development results with the existing arrangement have been reported alongside.

Table 6.32: A595/ B5295 Egremont Road/ Homewood Road, 2032 Existing Arrangement & ID 33 Improvement Scheme

		AM Peak		PM Peak	
		No Dev	With Dev With ID 33	No Dev	With Dev With ID 33
Homewood Road	Max RFC Max Q Aver Delay	0.59 1 13 secs	0.62 2 14 secs	0.61 2 13 secs	0.69 2 16 secs
A595 Egremont Road	Max RFC Max Q Aver Delay	1.09 65 2m 44s	0.69 2 6 secs	1.13 91 3m 49s	0.70 2 6 secs
A595 North	Max RFC Max Q Aver Delay	0.84 5 21 secs	0.89 7 30 secs	0.67 2 9 secs	0.69 2 10 secs
B5295 Egremont Road	Max RFC Max Q Aver Delay	0.37 1 7 secs	0.42 1 8 secs	0.26 0 5 secs	0.26 0 5 secs

6.83 The results show that with the implementation of the ID 33 scheme the performance of the A595 northbound approach will operate significantly better. In the AM peak the queue will reduce from 65pcu to 2pcu with over 2½ min reduction in delay. In the PM peak the queue will reduce by 89pcu with a 3¾ min reduction in delay. The results therefore demonstrate that the Option 1 scheme proposal will more than mitigate for the impact of the development generated traffic.

Junction 15 – A595/ Mirehouse Road

6.84 The A595/ Mirehouse Road signalised junction has been assessed using JCT's LINSIG v3 computer program. Geometrical parameters included in the model have been taken from as-built drawings provided by NH and the signal specifications have been used to build the model. The saturation flows were determined by inputting the geometric lane parameters from OS mapping into the LINSIG program which uses TRL's RR67 methodology. The junction operates under MOVA control. The junction typically runs on three stages:

- i) A595 Northbound & Southbound
- ii) A595 Southbound Indicative Right Turn & Mirehouse Road Left Turn Filter
- iii) Mirehouse Road

6.85 As the junction operates under MOVA control the cycle time optimiser in LINSIG was run which indicated 120 seconds is the optimum cycle time, therefore it has been selected as the cycle time. Table 6.33 below shows the model results for the base year of 2022.

Table 6.33: A595/ Mirehouse Road, 2022 Existing Arrangement

		AM Peak	PM Peak
A595 North Ahead/Right Turn	DoS	60.3%	83.7%
	MMQ	12	8
	Av Delay	14 secs	26 secs
Mirehouse Road Right/Left	DoS	59.7%	82.2%
	MMQ	6	7
	Av Delay	46 secs	1m 19s
A595 South Ahead/Left Turn	DoS	57.6%	86.2%
	MMQ	13	31
	Av Delay	13 secs	23 secs
Cycle time		120	120
PRC		49.1%	4.5%

6.86 The results show that the junction operates within capacity in the AM and PM peak periods. In the AM peak hour the longest delay per vehicle is 46 secs on the Mirehouse Road approach, whilst the longest queue is 13pcu on the A595 south approach. In the PM peak the longest delay is just over 1¼ mins on the Mirehouse Road approach and a 31pcu queue on the A595 south approach. The model is considered a good base for future projections.

6.87 Table 6.34 below shows the model results for the No Development and With Development scenarios for each of the peak hours in 2032.

Table 6.34: A595/ Mirehouse Road, 2032 No Dev & With Dev

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
A595 North Ahead/Right Turn	DoS	64.9%	65.6%	90.7%	94.7%
	MMQ	14	14	13	17
	Av Delay	15 secs	15 secs	34 secs	45 secs
Mirehouse Road Right/Left	DoS	64.1%	65.0%	87.9%	94.6%
	MMQ	7	8	8	10
	Av Delay	47 secs	46 secs	1m 29s	1m 56s
A595 South Ahead/Left Turn	DoS	61.9%	63.1%	94.5%	96.8%
	MMQ	15	16	43	48
	Av Delay	16 secs	17 secs	37 secs	48 secs
Cycle time		120	120	120	120
PRC		38.7%	37.1%	-5.0%	-7.6%

The results show that in the AM peak hour the junction will continue to operate within capacity in the No Development and With Development scenarios. The additional development generated traffic only increases the queue by 1pcu on the Mirehouse Road approach and A595 south approaches while the delay is increased by no more than 1 sec. In the PM peak hour the junction will operate within capacity in both the No Development and with Development scenarios although at least one of the approaches is operating over 90% DoS the PRC of the junction overall is negative. The impacts of the development generated traffic will increase the queue by

5pcu at most from 43 to 48pcu on the A595 South approach with an increase in delay of 11 secs. The development will also add 4pcu to the queue on A595 North and 2pcu to the queue on Mirehouse Road with a 27 sec increase in delay.

- 6.88 The results demonstrate that the increases in queues and delays as a result of the development generated traffic are minor and the performance of the junction will continue to operate within capacity in 2032. No highway improvements are therefore required for capacity reasons.

Junction 16 – A595 Egremont Bypass/ A5086/ Howbank Road

- 6.89 Table 6.35 below shows the model results for the surveyed year of 2022.

Table 6.35: A595 Egremont Bypass/ A5086/ Howbank Road, 2022 Existing Arrangement

		AM Peak	PM Peak
A5086	Max RFC	0.14	0.16
	Max Q	0	0
	Aver Delay	3 secs	3 secs
A595 Egremont Bypass	Max RFC	0.30	0.58
	Max Q	0	1
	Aver Delay	2 secs	4 secs
Howbank Road	Max RFC	0.26	0.22
	Max Q	0	0
	Aver Delay	6 secs	8 secs
A595 Clints Brow	Max RFC	0.38	0.47
	Max Q	1	1
	Aver Delay	4 secs	4 secs

- 6.90 The results show that the junction performs well within capacity with minimal queues and delays. The model is a good base for future projections.

- 6.91 Table 6.36 below shows the model results in 2032, with and without the proposed development.

Table 6.36: A5086, A595 Egremont Bypass/ A5086/ Howbank Road, 2032 Existing Arrangement

		AM Peak		PM Peak	
		No Dev	With Dev	No Dev	With Dev
A5086	Max RFC	0.15	0.16	0.17	0.21
	Max Q	0	0	0	0
	Aver Delay	3 secs	3 secs	3 secs	3 secs
A595 Egremont Bypass	Max RFC	0.32	0.33	0.62	0.63
	Max Q	1	1	2	2
	Aver Delay	2 secs	2 secs	4 secs	5 secs
Howbank Road	Max RFC	0.29	0.32	0.26	0.27
	Max Q	0	1	0	0
	Aver Delay	6 secs	6 secs	10 secs	10 secs
A595 Clints Brow	Max RFC	0.41	0.41	0.50	0.51
	Max Q	1	1	1	1
	Aver Delay	4 secs	4 secs	5 secs	5 secs

- 6.92 The results show that the junction will continue to operate well within capacity in 2032 with minimal queues and delays in both the No Development and With Development scenarios. No mitigation measures are required for highway capacity reasons.

Summary

- 6.93 The traffic impacts of the proposed development on the estate access/ Leconfield Street mini roundabout are small. The roundabout will continue to operate with minimal queues and delays in the future year with the development in place. The Area 3 and Area 2 access junctions both operate with minimal queues and delay in the future year with full development in place.
- 6.94 The traffic impacts of the proposed development on the local road network are generally minor: the Dalzell Street, Bowthorn Road, Birks Road, and Jacktrees Road junctions all operate with minimal queues and delays with the full development in place, and no junction mitigation works are required.
- 6.95 The assessment has shown that the existing Hensingham mini roundabout in 2032 in the No Development scenario is predicted to have queues of 11 or 12 vehicles and delays of approximately 1 minute per vehicle on Main Street and Cleator Moor Road in the AM peak hour. In the PM peak hour there are minimal queues and delays. The addition of development generated traffic in the AM peak hour increases the queues and delays on these approaches. Highway improvements to the Main Street and Cleator Moor Road approaches are proposed such that in the With Development (with improvement) scenario the junction will operate with lower levels of queuing and delays on Cleator Moor Road and Main Street than in the With Development (without improvement) scenario; on the Moresby Road arm, the level of queuing and delay is marginally increased in the AM peak and unaffected in the PM peak. The improvements consists of removing the existing hatching on the approach arms and thereby providing a wider entry point into the roundabout.
- 6.96 Capacity assessments of the relevant A595 junctions show that Toll Bar, Howgate, and Howbank roundabouts operate well and within capacity in the future year, as does Mirehouse Road/A595 junction. None of these junctions require mitigation measures.
- 6.97 Rosehill junction is currently over capacity on the minor arm with long delays. In the future year the junction continues to perform poorly with long queues and delays. There is a highway safety improvement scheme (ID 43) proposed which will re-route right turners to Howgate roundabout. With 75% of right turners diverted, delays at Rosehill are reduced by 20 mins in the AM peak and 6 mins in the PM peak. Howgate roundabout can accommodate the additional traffic. This development is listed as a contributor towards the cost of the scheme

- 6.98 Inkerman Terrace signalised junction currently operates well and within capacity. In the future year, queues and delays are increased but the addition of the development traffic results in only minor effects. The junction will continue to operate within capacity and no mitigation measures are required.
- 6.99 Hensingham Square mini roundabout currently operates well. In the future year the Main Street arm is over capacity with the addition of the development traffic, resulting in a delay of 1min 47s. Mitigation measures are proposed to improve the performance. Increasing the entry width and flare length by moving the splitter island and road markings on Main Street will reduce the delay to 39secs. The mini roundabout operates within capacity with the improvements.
- 6.100 Homewood Road roundabout currently operates over capacity on the A595 northbound and Homewood Road approaches in the AM and PM peaks with delays of 117sec and queues of 46 (A595 northbound, PM peak). In the future year the junction continues to perform poorly and the addition of the development traffic increases the delay on A595 northbound approach to 4m 8s. There is an improvement scheme proposed (ID 33) by WSP which has two options (a 2-lane approach on A95 northbound or a bypass lane) for which this development is identified as a contributor. Option 1 has been modelled with the development traffic and has been shown to significantly improve the operation, with an 89pcu queue reduction in the PM peak.
- 6.101 In summary, this development proposes improvement works on Hensingham mini roundabout and Hensingham Square mini roundabout. It is also listed as a contributor towards the costs of two improvement schemes on the A595: Rosehill junction and Homewood Road roundabout. All other junctions do not require mitigation.

7 HIGHWAY SAFETY

7.1 Road Traffic Collision records for the most recent pre-Covid 3-year period ending the 31st of January 2020 have been obtained from CCC. The study area comprises the junctions on the B5295 and A595 assessed in Chapter 6 above. The Crashmap database has also been analysed to establish accident details on Bowthorn Road from its junction with the B5925 to the proposed access junction and on Birks Road from the B5295 to the health centre access.

7.2 Copies of the CCC highway safety records are attached in Appendix J.

B5295 Leconfield Street/ Little Croft Mini Roundabout

7.3 In the assessment period one accident was reported in the vicinity of the mini roundabout, as summarised at Table 7.1 below.

Table 7.1: B5295 Leconfield Street/ Little Croft Mini Roundabout

Ref No	Location	Lighting	Rd Surface	Severity	Casualties
221377	B5295 nr Ind Est	Daylight	Dry	Serious	1 motorcyclist
A car travelling north-west on the B5295 has signalled to turn left into the Nisa garage but does not turn and continues straight on. A car waiting to turn left out of the garage sees the signal and moves forward to join the carriageway, causing the first car to brake, skid and collide with a motorcyclist. Factors: slippery road (due to weather), failed to signal/misleading signal.					

7.4 The number of accidents reported in the vicinity of the Area 1 access junction during the assessment period is very low. The one incident that did occur resulted in serious injury for a motorcyclist but the contributory factors reported were 'slippery road (due to weather)' and 'failed to signal/ misleading signal' which indicates the only reported accident could be attributed to the road conditions and driver error rather than inadequate highway design.

B5294 Bowthorn Road/ Proposed Access

7.5 There were no reported accidents on the B5294 Bowthorn Road in the vicinity of the proposed access to Area 3 during the assessment period.

B5294 Bowthorn Road between the B5295 and the Proposed Access

7.6 There were no reported accidents on the B5294 Bowthorn Road between the B5295 and the proposed access during the assessment period.

Birks Road/ Health Centre Access

- 7.7 There were no reported accidents at the Birks Road/ health centre access during the assessment period.

Birks Road between the B5295 and Health Centre

- 7.8 There were no reported accidents on Birks Road between the B5295 and the health centre access during the assessment period.

B5295 Main Street/ Moorsby Road/ B5295 Cleator Moor Road – Hensingham Mini Roundabout

- 7.9 In the assessment period three accidents were reported at the mini roundabout, all slight in severity, as summarised at Table 7.2 below.

Table 7.2: Hensingham Mini Roundabout

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
193361	Hensingham mini roundabout	Daylight	Dry	Slight	2 passengers
A vehicle failed to stop at the mini roundabout and collided with the rear nearside of another car at slow speed. Factors: junction overshoot, loss of control.					
233488	Hensingham mini roundabout	Daylight	Dry	Slight	1 driver
A car collided with the rear end of another car which had slowed for an ambulance. Factors: failed to look properly.					
347139	Hensingham mini roundabout	Daylight	Dry	Slight	1 cyclist
A cyclist on the roundabout was hit by a car pulling into the roundabout. Factors: failed to look properly, failed to judge other person's path or speed.					

- 7.10 The number of reported accidents at the junction during the assessment period is low and the three incidents resulted in slight injury. In all three accident reports, the contributory factors suggest driver error rather than inadequate highway design was the cause of the accident.

B5295 Keekle Terrace/ Dalzell Street

- 7.11 There were no reported accidents at the junction during the assessment period.

B5295 Leconfield Street/ B5294 Bowthorn Road

- 7.12 In the assessment period one accident was reported in the vicinity of the junction, as summarised at Table 7.3 below.

Table 7.3: B5295 Leconfield Street/ B5294 Bowthorn Road

Ref No	Location	Lighting	Rd Surface	Severity	Casualties
318863	Bowthorn Road	Daylight	Dry	Serious	1 cyclist
A car is passing a stationary vehicle as a cyclist emerges from a lane into the road and collides with the car. Factors: cyclist entering carriageway from pavement, failed to look properly.					

- 7.13 The number of accidents reported in the vicinity of the junction during the assessment period is very low. The one incident that did occur resulted in serious injury for a cyclist but the contributory factors reported were ‘cyclist entering carriageway from pavement’ and ‘failed to look properly’ which indicates the only reported accident could be attributed to the errors of the cyclist rather than inadequate highway design.

B5295 High Street/ Birks Road

- 7.14 In the assessment period one accident was reported in the vicinity of the junction, as summarised at Table 7.4 below.

Table 7.4: B5295 High Street/ Birks Road

Ref No	Location	Lighting	Rd Surface	Severity	Casualties
340553	B5295 nr Birks Road	Daylight	Dry	Slight	1 driver
A car travelling north-west collides with a car travelling south-east. Factors: failed to look properly, failed to judge other’s path or speed					

- 7.15 The number of accidents reported in the vicinity of the junction during the assessment period is very low. The one incident that did occur resulted in slight injury but the contributory factors reported were ‘failed to look properly’ and ‘failed to judge other’s path or speed’ which indicates the only reported accident could be attributed to the errors of the driver rather than inadequate highway design.

B5295 High Street/ Jacktrees Road

- 7.16 In the assessment period three accidents were reported at the junction, all slight in severity, as summarised at Table 7.5 below.

Table 7.5: B5295 High Street/ Jacktrees Road

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
848362	B5295 nr Jacktrees Road	Night, Lit	Dry	Slight	2 drivers
A car on the B5295 pulls away from the kerb intending to turn right into Jacktrees Road when it was clipped by a minibus travelling north-east on the B5295. Factors: failed to judge other person's path or speed, travelling too fast for conditions.					
276106	Jacktrees Road	Night, Lit	Dry	Slight	1 driver
A car travelling east on the B5295 slows to turn right into Jacktrees Road when a car behind fails to slow and collides with it. Factors: slippery road (due to weather), sudden braking.					
202645	Jacktrees Road	Daylight	Dry	Slight	1 cyclist
A cyclist waiting to turn right onto the B5295 was hit by a car turning right into Jacktrees Road. Factors: poor turn or manoeuvre.					

- 7.17 The number of reported accidents at the junction during the assessment period is low and the three incidents resulted in slight injury. In all three accident reports, the contributory factors suggest driver error or road conditions rather than inadequate highway design was the cause of the accident.

B5295 Dalzell Street to Jacktrees Road

- 7.18 In the assessment period five accidents were reported on this 1.9km long section away from junctions, all slight in severity, as summarised at Table 7.6 below.

Table 7.6: B5295 Dalzell Street to Jacktrees Road

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
1998221	B5295 nr Mill Hill	Daylight	Wet	Slight	1 driver
The driver of a car travelling north-west along the B5295 collides with a parked car that then collides with another parked car Factors: Poor turn or manoeuvre.					
279357	B5295 nr Crossfield Road	Daylight	Dry	Serious	1 motorcyclist
A motorcyclist collides with the rear of a van and falls off. Factors: following too close.					
846453	B5295 nr bridge over cyclepath	Daylight	Dry	Slight	1 driver
The driver of a car travelling along the B5295 sneezes and drifts into the opposing carriageway, colliding with another car. Factors: loss of control.					
186497	B5295 near Montreal Street	Daylight	Dry	Serious	2 drivers, 1 pedestrian
The driver of a car travelling east suffers a medical episode and collides with a car travelling in the opposite direction. Factors: illness or disability, mental or physical.					

884046	B5295 nr Montreal Street	Daylight	Dry	Slight	1 driver
A car trying to join the main road from a minor access has its view partially obstructed by parked cars. It edges out but collides with a car travelling east on the B5295. Factors: stationary or parked vehicles.					

- 7.19 The number of reported accidents at the junction during the assessment period is low and the five incidents resulted in slight injury. In all accident reports, the contributory factors suggest driver error or road conditions rather than inadequate highway design was the cause of the accident.

A595/ A597 Toll Bar Roundabout

- 7.20 In the assessment period two accidents were reported at the roundabout, all slight in severity, as summarised at Table 7.7 below.

Table 7.7: A595/ A597 Toll Bar

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
276250	A595/ A597 Roundabout	Daylight	Dry	Slight	1 driver
A car travelling from the A595 heading northbound, has collided with another car at the A595 junction on the roundabout. Factors: Unknown					
177987	A595/ A597 Roundabout	Daylight	Dry	Slight	2 drivers
A car travelling south along the A595 towards the roundabout has swerved to avoid a bucket which was in its path and has hit a second car. Factors: Object in carriageway					

- 7.21 The number of reported accidents at the junction during the assessment period is very low and the two incidents resulted in slight injury. The first incident can be attributed to driver error and the second accident can be attributed to an object in the carriageway rather than inadequate highway design being the cause of the accidents.

A595/ B5306 Howgate Roundabout

- 7.22 In the assessment period four accidents were reported at the roundabout, all slight in severity, as summarised at Table 7.8 below.

Table 7.8: A595/ B5306 Howgate Roundabout

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
336668	Howgate roundabout A595 Northbound	Daylight	Dry	Slight	1 driver, 1 passenger
A car has been racing another vehicle, both travelling along the A595 northbound, and have not noticed stationary traffic ahead and has collided with a second car which has then collided with a third car. Factors: Travelling too fast for conditions, Careless/reckless driving, Exceeding speed limit.					
345586	Howgate roundabout A595 Northbound	Daylight	Dry	Slight	1 cyclist
A car travelling from the B5306 to the A595 heading north on the roundabout collides with a cyclist who is crossing the northbound A595 exit. Factors: Unknown					
856092	Howgate roundabout A595 Southbound	Night, Lit	Wet	Slight	1 driver, 1 passenger
A car has been travelling at speed, travelling from north to south on the A595 and failed to stop for the roundabout. The car has driven straight over the roundabout and crashed into a barrier. Factors: Aggressive driving, illegal turn, or direction of travel.					
835335	Howgate roundabout A595 Northbound	Daylight	Dry	Slight	1 driver, 1 passenger
A car travelling northbound on the A595 on the approach to the roundabout has failed to stop and has collided with the rear of a second car. Factors: Failed to look properly, failed to judge other persons path or speed, careless/reckless/ in a hurry.					

- 7.23 The number of reported accidents at the junction during the assessment period is low and the accidents were spread out at a number of different locations. None of the contributory factors reported for the accidents can be attributed to inadequate highway design and there were no noticeable patterns or trends in the accidents that did occur.

A595/ Rosehill Priority Junction

- 7.24 In the assessment period one accident was reported in the vicinity of the junction, as summarised at Table 7.9 below.

Table 7.9: A595/ Rosehill

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
228907	Rosehill junction	Daylight	Dry	Slight	1 driver
A car has pulled out of the Rosehill junction and not stopped at the give way line. Another car has been heading southbound along the A595 and has collided with the car pulling out from Rosehill junction. Factors: Disobeying give way sign or road markings, Loss of control					

- 7.25 The number of accidents reported in the vicinity of the junction during the assessment period is very low. The one incident that did occur resulted in slight injury and the contributory factors reported were 'disobeying give way sign or road markings' and 'loss of control' which indicates the only reported accident could be attributed to the errors of the driver rather than inadequate highway design.

A595/ Inkerman Terrace/ Ribton Moorside Staggered Junction

- 7.26 In the assessment period six accidents were reported at the junction as summarised at Table 7.10 below.

Table 7.10: A595/ Inkerman Terrace/ Ribton Moorside

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
167710	Inkerman Terrace Junction/A595	Daylight	Dry	Slight	1 driver
A light goods vehicle heading northbound on the A595 has collided with a car waiting at the junction to go ahead which has then in turn collided with a second car. Factors: Failing to look properly, Following too close.					
311000	Inkerman Terrace junction/ A595	Daylight	Dry	Serious	1 driver
A car travelling southbound on the A595 has turned right to Inkerman Terrace and has turned into the path of a second vehicle heading northbound on the A595, causing a collision. Factors: Failed to look properly, poor turn or manoeuvre					
347782	Inkerman Terrace junction/ A595	Night, Lit	Wet	Slight	1 driver, 1 passenger
A car heading northbound on the A595 has collided with a second car waiting at the traffic lights waiting to continue northbound. Factors: Impaired by alcohol, slippery roads					
318871	Junction with Inkerman Terrace/A595	Night, Lit	Dry	Slight	2 drivers, 5 car passengers
A car turning right from the A595 southbound has gone to turn right to Inkerman Terrace and has collided with the path of a taxi heading northbound. Factors: Illegal tires, inexperienced driver.					
285697	Inkerman Terrace Junction/A595	Daylight	Dry	Serious	1 pedestrian
A car travelling southbound on the A595 has collided with a pedestrian who has attempted to cross the road despite the traffic lights being on green. Factors: failed to look properly, failed to judge vehicles path or speed.					
230132	Inkerman Terrace Junction/A595	Night, Lit	Dry	Slight	1 driver, 1 passenger
A car heading east on Inkerman Terrace towards the junction collided with the rear of a second car which was waiting at the lights. Factors: failed to look properly, inexperienced or learner driver.					

7.27 The number of reported accidents at the junction during the assessment period is low and the accidents were spread out at a number of different locations. None of the contributory factors reported for the accidents can be attributed to inadequate highway design and there were no patterns or trends in the incidents that did occur. There were two serious accidents that occurred at the junction during the observation period and one of them involved a pedestrian. This incident can be attributed to poor decision making as the pedestrian crossed the road when the traffic was on a green light. The other serious accident occurred when a vehicle turned into the path of a second vehicle and can be attributed to drive error.

B5295 Hensingham Square Mini Roundabout, Man Street/ Egremont Road

7.28 In the assessment period two accidents were reported at the junction as summarised at Table 7.11 below.

Table 7.11: B5295 Hensingham Square Mini Roundabout

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
155406	Hensingham Sq mini roundabout	Night, lit	Dry	Slight	2 drivers, 2 passengers (children)
A car enters the mini roundabout from the Main Street arm while another car proceeds onto the roundabout from the southern arm without giving way and a collision ensues causing slight injuries to 4 people. Factors: disobeyed give way sign or markings, inexperienced with vehicle					
820177	Hensingham Sq mini roundabout	Night, lit	Wet	Slight	1 passenger
A car travels towards the mini roundabout on the Main Street arm, the driver loses control on the roundabout and collides with a property, deflects, and collides with a taxi travelling from Ribton Moorside. Factors: slippery road due to weather, loss of control, inexperienced driver					

7.29 The number of reported accidents at the junction during the assessment period is very low. None of the contributory factors reported for the accidents can be attributed to inadequate highway design and there were no patterns or trends in the accidents that did occur.

A595/ B5295 Homewood Road Roundabout

7.30 In the assessment period two accidents were reported at the roundabout, as summarised at Table 7.12 below.

Table 7.12: A595/ B5295 Homewood Road Roundabout

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
274072	Junction with A595 roundabout Southbound	Night, Lit	Dry	Slight	1 pedestrian
A car travelling north-westbound enters the roundabout from the south and collides with a pedestrian who ran into the carriageway. Factors: failed to look properly, pedestrian wearing dark clothing.					
312287	Junction with Homewood Road	Night, Lit	Dry	Slight	1 driver
A car travelling south on the A595 enters the roundabout and strikes deviation boards on the roundabout and then leaves the scene. Factors: Travelling too fast for conditions, Poor turn or manoeuvre					

- 7.31 The number of reported accidents at the junction during the assessment period is very low and occurred at different locations at the junction. There was one serious accident that did occur but the contributory factors; 'failed to look properly' and 'distraction in vehicle' were attributed to it which suggests that the incident was caused by driver error as opposed to inadequate highway design.

A595/ Mirehouse Road Junction

- 7.32 In the assessment period, no accidents were reported at the junction.

A595/ A5086 Howbank Roundabout

- 7.33 In the assessment period there were six accidents reported at the roundabout, all slight in severity, as summarised at Table 7.13 below.

Table 7.13: A595/ A5086 Howbank

Reference	Location	Lighting	Dry/Wet	Severity	Casualties
161945	Clints Brow A595	Daylight	Dry	Slight	1 driver
An agricultural vehicle has collided with the rear of a car when it stopped and started on the A595. Factors: Following too close					
170254	Egremont Roundabout A595 south	Daylight	Dry	Slight	1 driver
A car has been travelling northbound on the A595 and has given way to oncoming traffic. Another car has also been travelling northbound heading towards the roundabout and has collided with the rear of first vehicle. Factors: Unknown					
226051	Egremont Roundabout/ A5086	Daylight	Dry	Slight	1 driver
A car has been travelling northbound towards A5086 and has collided with the rear of motorbike causing the rider to fall off. Factors: Unknown					

347293	Egremont Roundabout/A595	Daylight	Dry	Slight	1 driver
A car travelling northbound on the A595 has crashed into railings on the exit of the roundabout onto the carriageway. Factors: Visor or windscreen dirty, scratched or frosted etc.					
809208	Egremont Roundabout/A595	Night, Lit	Dry	Slight	1 driver
A car travelling through the roundabout heading north has collided with the rear of another car. Neither vehicle stopped. Factors: Unknown.					
835818	Egremont Roundabout/A595	Daylight	Dry	Slight	1 driver
A car travelling through the roundabout heading south, has failed to stop in time and has had a collision with another car which was also heading south. Factors: Following too closely, Failed to look properly, Failed to judge other persons path or speed, Dazzling sun, distraction in vehicle, sudden braking					

- 7.34 The number of reported accidents at the junction during the assessment period is low given the daily volumes of traffic which passes through it and all of the incidents were slight in severity. Five of the six accidents involved rear end shunts but these occurred at different locations at the junction and in three of the five rear end shunt accidents, the contributory factors can be attributed to driver error or adverse weather conditions.

Summary

- 7.35 The results of the highway safety assessment show the road network operates safely at all the junctions within the study area.
- 7.36 As none of the accidents reported are due to inadequate highway design, mitigation measures for safety are not required.

8 SUMMARY

- 8.1 Tetra Tech (TT) were engaged by Copeland Borough Council (CBC) to prepare a Transport Assessment for the proposed redevelopment and expansion of Leconfield Industrial Estate.
- 8.2 The proposals seek to deliver the Cleator Moor Innovation Quarter (CMIQ), which will host the Innovation and Solutions Hub Campus (subject of a separate planning application). CMIQ will utilise a business cluster approach to diversifying the West Cumbrian economy away from dependency on Sellafield by building upon existing supply chain, knowledge and engineering capabilities in the nuclear and clean energy sectors.
- 8.3 Outline planning permission is sought for employment led mixed-use development on the existing Leconfield Industrial Estate and adjacent land parcels to the north and east at Cleator Moor. Quantum, land use, scale and access are being sought for approval with all other matters reserved.
- 8.4 CMIQ proposes three areas of development within and around Leconfield Industrial Estate. Area 1 is the existing estate; the illustrative masterplan indicates refurbishing existing buildings and providing 9,735sqm of new industrial units in addition to upto 4,000sqm Hub. Area 2 is located to the east, on land accessed via the health centre access from Birks Road; 5,837sqm of either student accommodation or E(g(ii)). Area 3 is the northern expansion land located directly north of the existing estate and accessed via a new junction on Bowthorn Road; a number of industrial units totalling 24,029sqm.
- 8.5 A new access to Area 3 is proposed in the form of a priority junction with right turn lane ghost island, along with widening to provide a 6.5m carriageway along Bowthorn Road. Appropriate visibility can be provided and it is proposed to extend the 30mph zone further north on the road. On Bowthorn Road, by the terraced housing, a priority give way system is proposed to allow passage of HGVs. This is coupled with the introduction of bay parking and double yellow lines. Further down Bowthorn Road, near its junction with Leconfield Street, an additional off-street parking bay is proposed. The proposals have undergone a Stage 1 Road Safety Audit.
- 8.6 The masterplan is illustrative at this stage but parking will be provided in accordance with Cumbria Development Design Guide. A Construction Environmental Management Plan (CEMP) can be produced which will set out the details of how construction traffic will be managed on site to reduce disruption to local residents.
- 8.7 The site is in an accessible location for pedestrians, cyclists and public transport users. There are local residential areas and towns within reasonable walking and cycling distances where employees may live. Buses are available which provide regular and frequent services to a

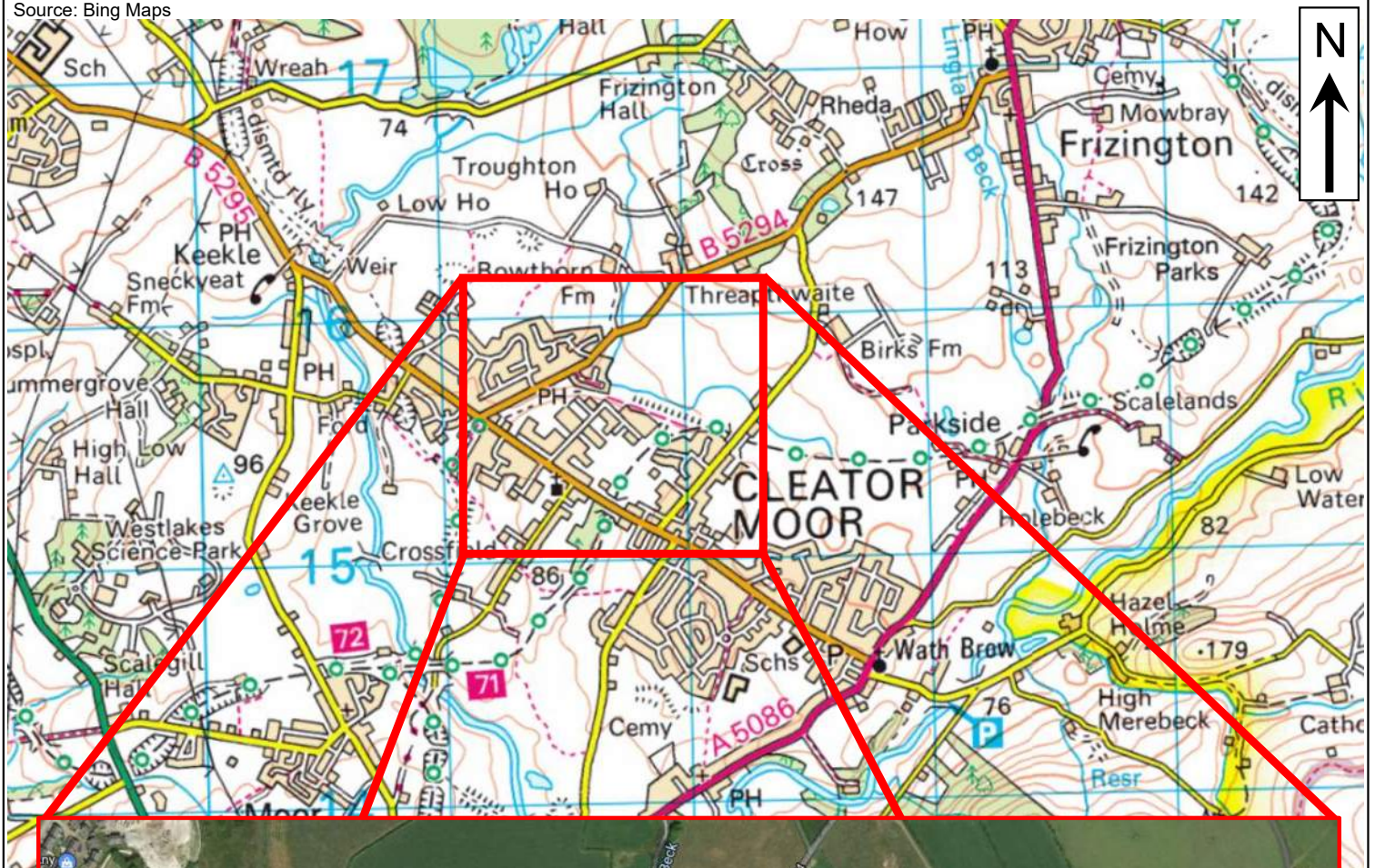
number of surrounding residential areas. There are many useful facilities available in Cleator Moor for employees.

- 8.8 There is a good network of footways and pedestrian crossing points throughout the town which provide easy links to the existing industrial estate. The C2C cycle route passes along the site boundaries which can be used as a quicker alternative to access the town centre on foot. Additional connections to the C2C are proposed. An emergency access for Area 3 onto Birks Road can also be used a pedestrian cycle connection.
- 8.9 The proposed works on Bowthorn Road will provide improvements for pedestrians: a new footway on the south-eastern side of the road provides access from Area 3 to Bowthorn Road.
- 8.10 There are bus stops on Leconfield Street outside the Coop and in the town centre outside the library. New bus shelters are proposed at the Leconfield Street bus stops.
- 8.11 Area 1 including the Hub, as indicated on the illustrative masterplan, will generate 125 vehicles in the AM peak and 119 in the PM peak. Area 2 will generate 67 and 79 vehicles in the AM and PM peaks respectively. Area 3 will generate 135 and 114 vehicles in the AM and PM peaks respectively. In total, the development (including the Hub) will generate 327 and 312 vehicles in the AM and PM peak hours respectively.
- 8.12 The traffic impacts of the proposed development on the Area 1 access mini roundabout are small. The roundabout will continue to operate with minimal queues and delays in the future year with the full development in place. The Area 2 and Area 3 access junctions both operate with minimal queues and delay in the future year with full development in place.
- 8.13 The traffic impacts of the proposed development on the local road network are generally minor: the Dalzell Street, Bowthorn Road, Birks Road, and Jacktrees Road all operate with minimal queues and delays with the full development in place, and no junction mitigation works are required. Improvement works are proposed at Hensingham mini roundabout and Hensingham Square mini roundabout.
- 8.14 On the A595 network, Toll Bar, Howgate, and Howbank roundabouts operate well in the future year with minimal queueing and delays, as do the A595 Inkermann Terrace/ Ribton Moorside and A595/ Mirehouse Road. None of these junctions require mitigation measures. The A595/ Rosehill junction and A595/ Homewood Road roundabout require mitigation measures and the proposed development is listed as a contributor towards the costs of the two improvement schemes on the A595 in the WSP Copeland Transport Improvement Study.

- 8.15 The results of a highway safety assessment show the road network operates safely for the volume of traffic passing through it. As none of the accidents reported in recent years are due to inadequate highway design, mitigation measures for safety are not required.
- 8.16 The proposed development meets the sustainability objectives of National Planning Policy Framework (NPPF) and its traffic impacts are not severe. On those bases there is no justifiable transportation reason why planning consent should be withheld.

APPENDIX A – FIGURES

Source: Bing Maps



Source: Google Maps

Cleator Moor Innovation Quarter

Site Location Plan

Figure 1





Source: Google Maps

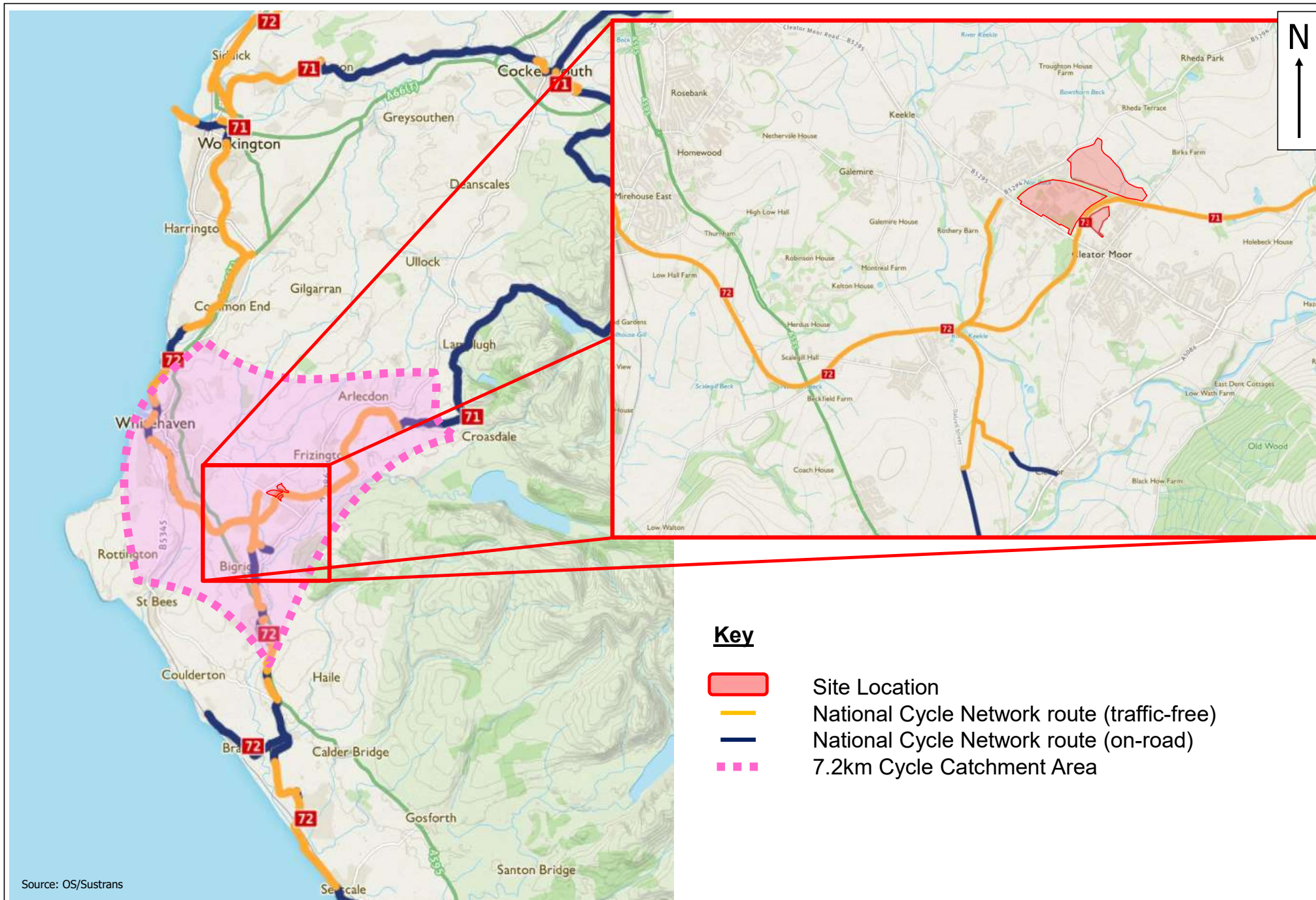
Key

	Site Location		Bus Stop		Public Bridleway		NCN71
	Pedestrian Crossing Point		Retail and Facilities		1.95km Walk Catchment Area		

Cleator Moor Innovation Quarter
Local Pedestrian Facilities and Bus Stops

Figure 2





Cleator Moor Innovation Quarter
Local Cycle Routes & 7.2km Catchment Area

Figure 3

APPENDIX B – DRAWINGS

PROPOSED SITE PLAN



SITE PLAN - PROPOSED
SCALE: 1 : 1250

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0 10 20 30 40 50 m

DATE	REVISION	REV	DR	CH
03/11/21	FIRST ISSUE FOR PLANNING REVIEW	P01	JS	DS
09/11/21	REVISION 2	P02	JS	DS
10/12/21	Amended to Tetra Tech Comments	P03	JS	DS
11/01/22	UPDATED GRAPHICS	P04	JS	DS
25/01/22	UPDATED SITE NAMES AND PLOTS	P05	JS	DS
16/02/22	UPDATED PLOT 1.4 to E1a	P06	JS	DK

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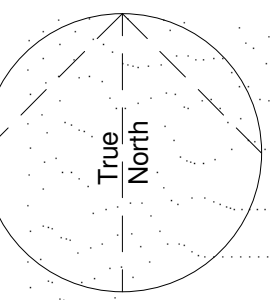
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Keyplan



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Drawn MCI	Date 01/09/21
Checked RS	Date 01/09/21
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Client
COPELAND BOROUGH COUNCIL

Project
CLEATOR MOOR INNOVATION QUARTER

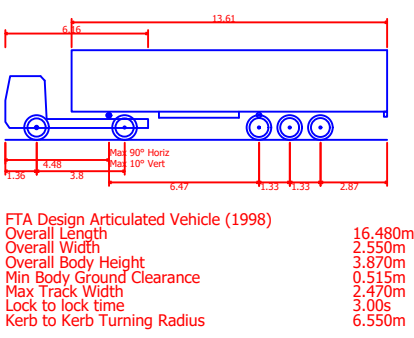
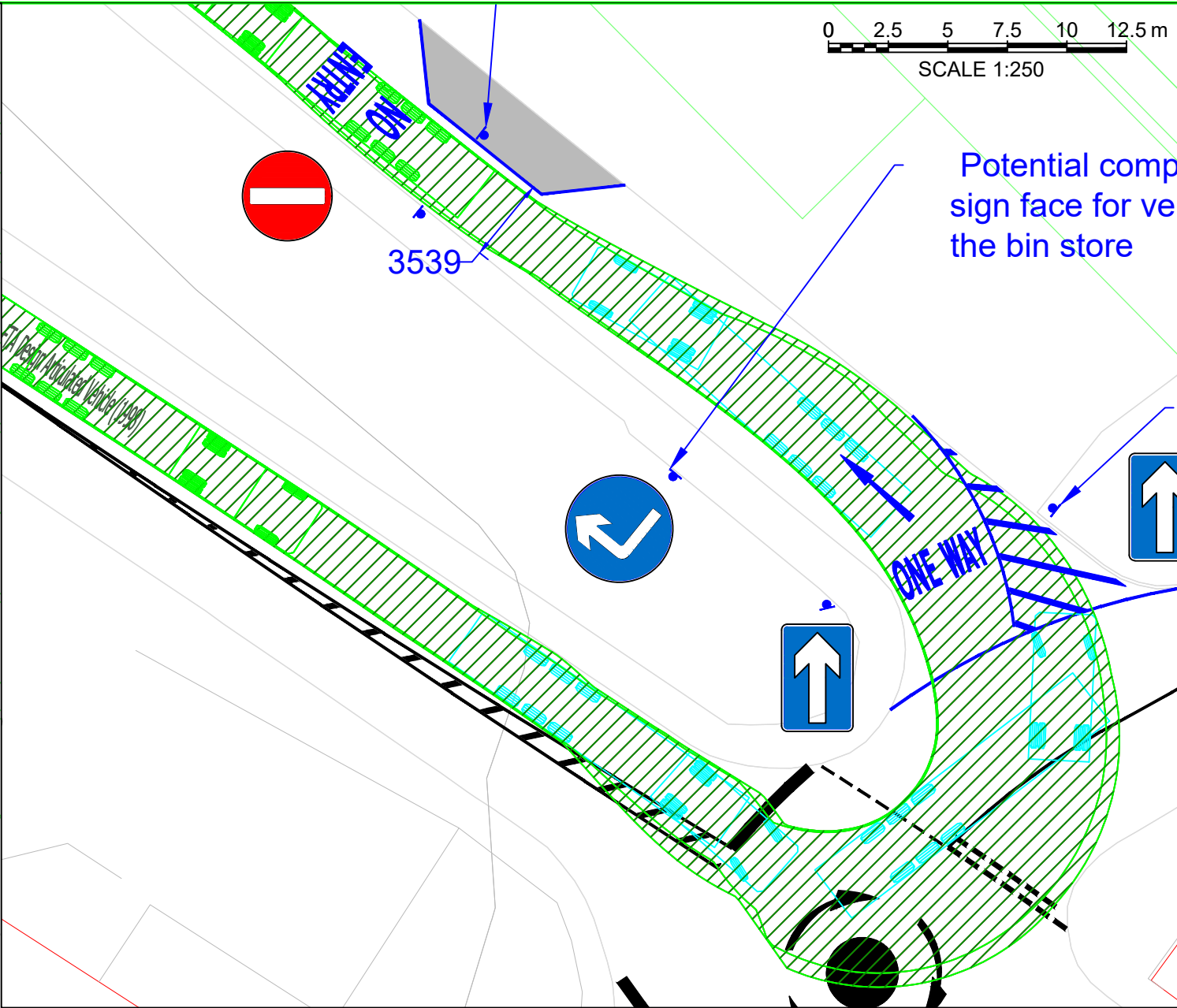
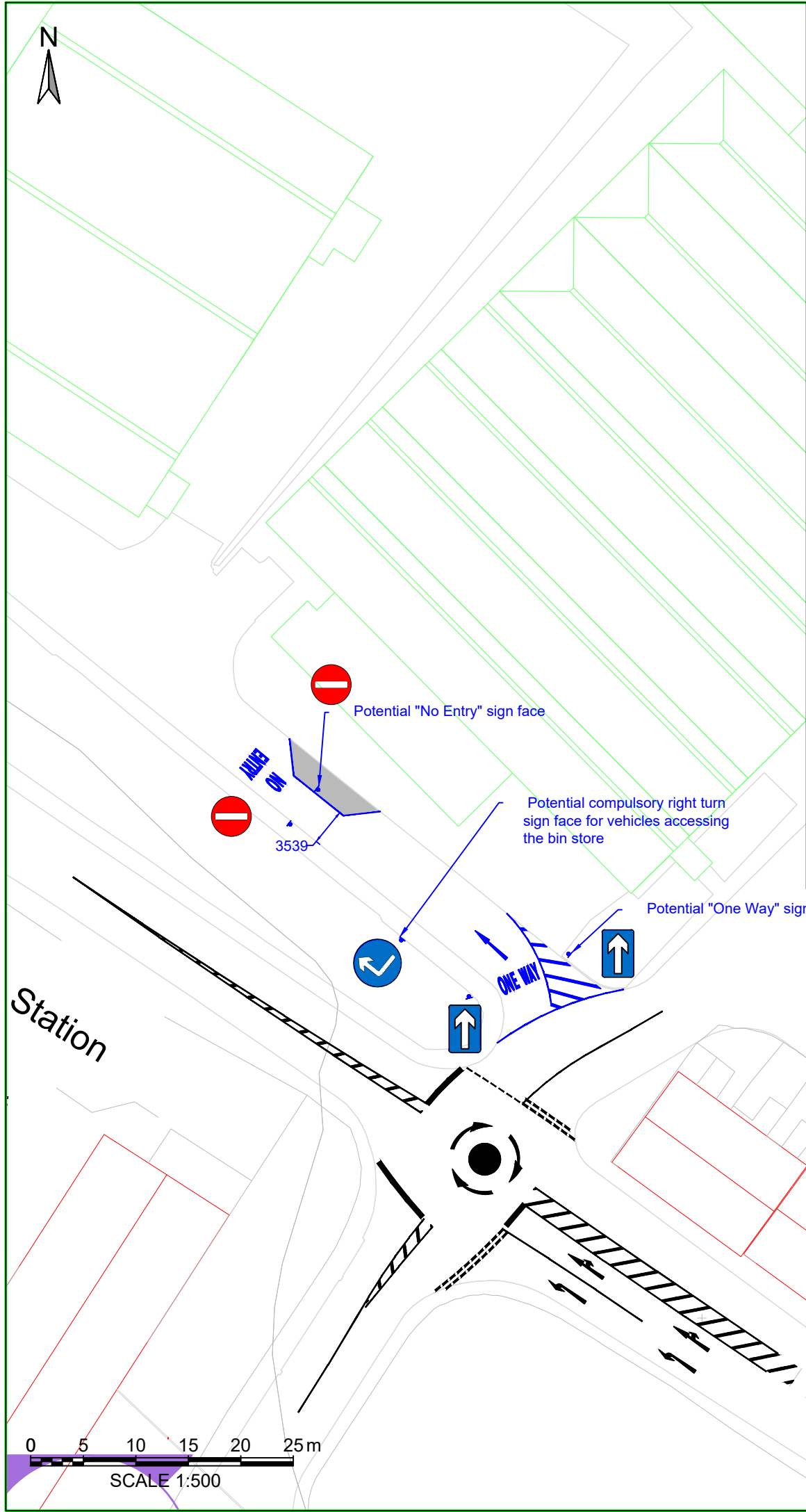
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PROPOSED SITE PLAN

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P06



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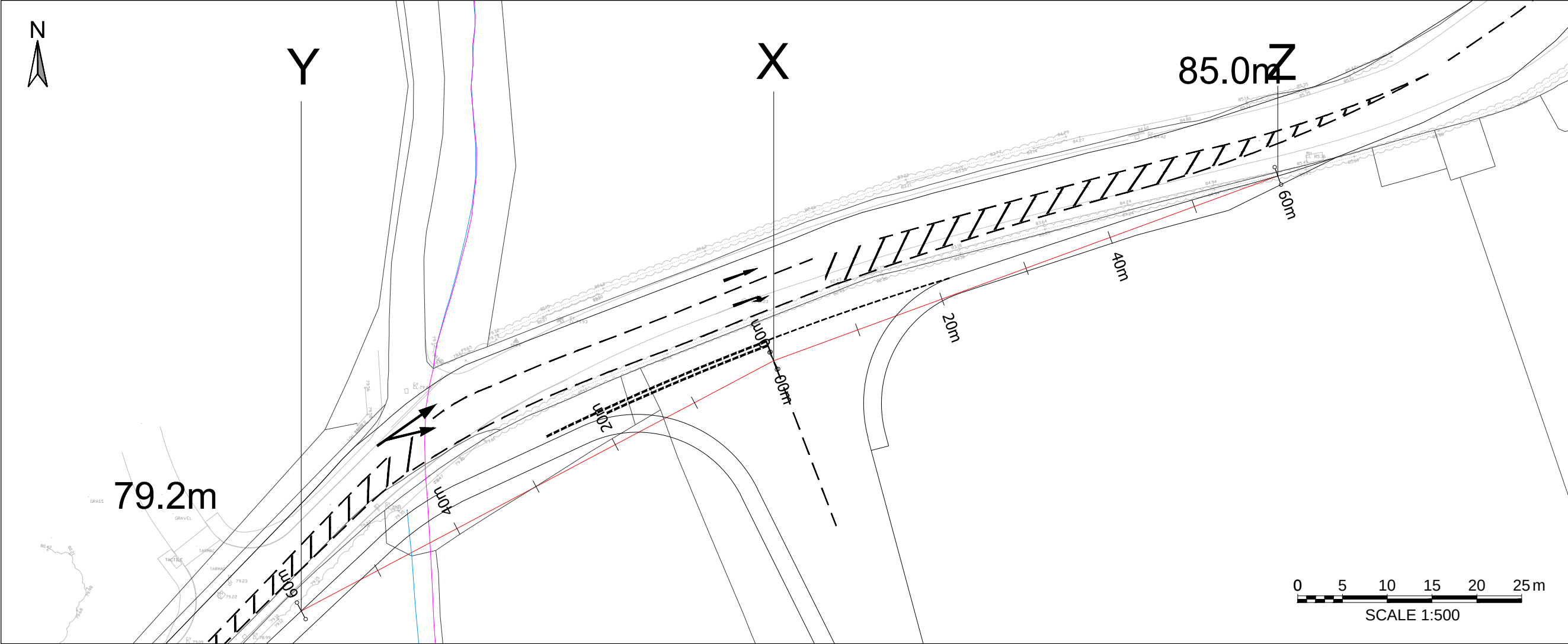


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Project Name
LECONFIELD INDUSTRIAL ESTATE

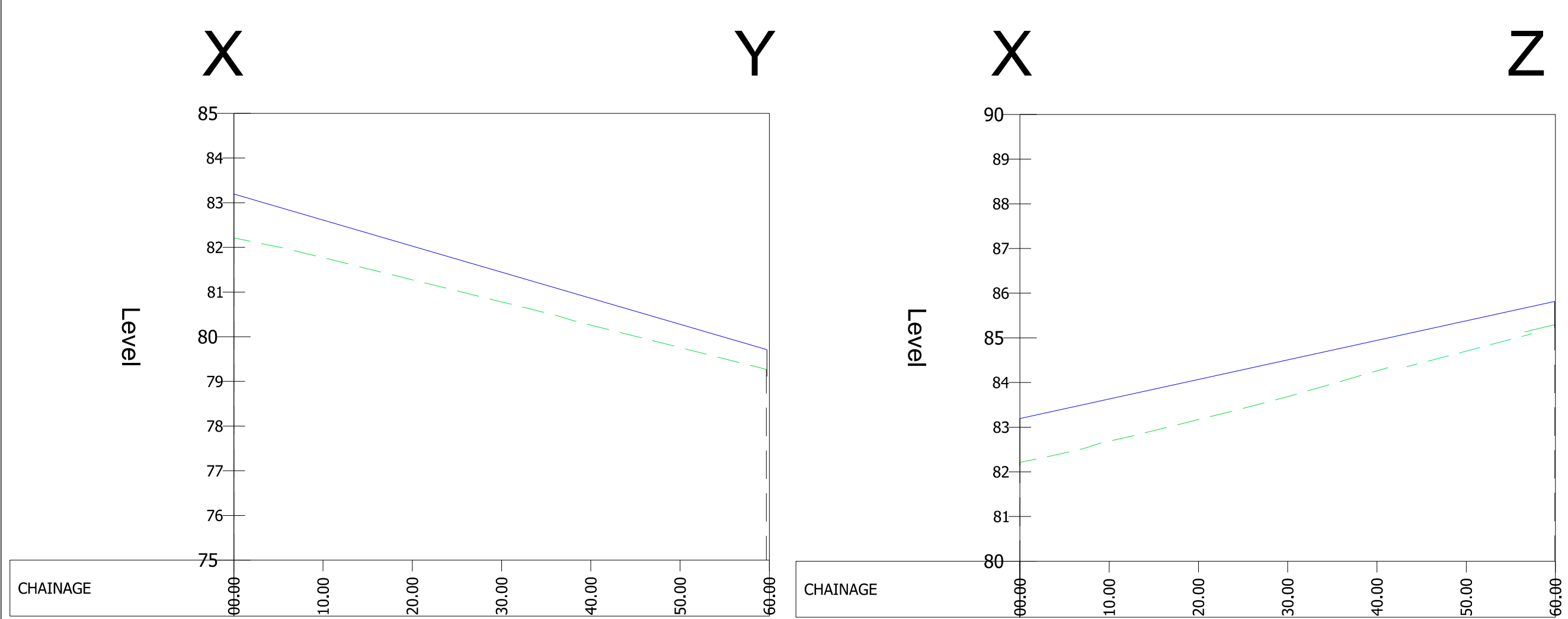
Sheet Title
**PROPOSED ONE-WAY ARRANGEMENTS
& TRACKING**

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @	Subsidiary
784-B030277	GW	Dec '21	NB	Dec '21	NB	Dec '21	A3 As Shown	S0
Client Project Number	Originator	Volume/System Level/Location	Type/Code	Role	Number	Revision		
PRJ01	- TTE	- 00	- XX	- DR	- O	- C002	P01	



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2.4 x 60m VISIBILITY SPLAY



KEY:

- PROFILE OF GROUND
- VISIBILITY ENVELOPE FROM DRIVERS EYE HEIGHT OF 1.05m TO OBJECT HEIGHT OF 0.6m IN LINE WITH MIS GUIDANCE

PRELIMINARY ISSUE

P02	AMENDMENTS FOLLOWING RSA (HATCHING)	01.04.2022	PT	EB	DG
P01	PRELIMINARY FIRST ISSUE	15.11.2021	PT	DG	DG
Rev	Description	Date	Rev	DGM / CDR / App	

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Client:
Copeland Borough Council

Project Name:
Leconfield Industrial Estate

Sheet Title:
Proposed Site Access:
Visibility in the Vertical Envelope



TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @	Suitability
B030277	PT	Nov 21	DG	Nov 21	DG	Nov 21	A3 1:500	S0
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
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PRELIMINARY ISSUE

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Client	

COPELAND BOROUGH COUNCIL

Project Name

LECONFIELD INDUSTRIAL ESTATE

Sheet Title

B5295 MAIN STREET/ MORESBY ROAD
MINI ROUNDABOUT
EXISTING & PROPOSED IMPROVEMENT

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @	Suitability
784-B030277	GW	Mar '22	NB	Mar '22	NB	Mar '22	A2 As Shown	S0
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
B030277	- TTE	- 00	- ZZ	- DR	- CH	- 0002	P01	

Minor widening in existing footway to improve junction capacity

Splitter island and central markings relocated

Road markings added for driver guidance

Note: Double yellow lines not shown

0 2.5 5 7.5 10 12.5 m
SCALE 1:250

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APPENDIX C – TRICS OUTPUT FILES

Calculation Reference: AUDIT-705112-191210-1223

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
 MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	2 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days
11	SCOTLAND	
	FA FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 7525 to 21250 (units: sqm)
 Range Selected by User: 7500 to 150000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 12/03/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Wednesday	2 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Edge of Town	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	2
Residential Zone	3
No Sub Category	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known	1 days
B2	5 days
B8	1 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

15,001 to 20,000	1 days
20,001 to 25,000	1 days
25,001 to 50,000	5 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days
250,001 to 500,000	1 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	4 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BR-02-D-04	INDUSTRIAL ESTATE	BRISTOL CITY
	CROFTS END ROAD		
	BRISTOL		
	SPEEDWELL		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18018 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
2	BR-02-D-05	INDUSTRIAL ESTATE	BRISTOL CITY
	NOVERS HILL		
	BRISTOL		
	BEDMINSTER		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18128 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
3	ES-02-D-06	INDUSTRIAL ESTATE	EAST SUSSEX
	COURTLANDS ROAD		
	EASTBOURNE		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	7525 sqm	
	Survey date: MONDAY	21/10/13	Survey Type: MANUAL
4	FA-02-D-02	INDUSTRIAL ESTATE	FALKIRK
	MAIN STREET		
	FALKIRK		
	GRAHAMSTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	21250 sqm	
	Survey date: THURSDAY	30/05/13	Survey Type: MANUAL
5	KC-02-D-02	INDUSTRIAL ESTATE	KENT
	SOUTHWELL ROAD		
	DEAL		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	10715 sqm	
	Survey date: WEDNESDAY	28/11/12	Survey Type: MANUAL
6	VG-02-D-01	INDUSTRIAL ESTATE	VALE OF GLAMORGAN
	ARTHUR STREET		
	BARRY		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	13091 sqm	
	Survey date: MONDAY	08/05/17	Survey Type: MANUAL
7	WY-02-D-08	INDUSTRIAL ESTATE	WEST YORKSHIRE
	MILL LANE		
	HALIFAX		
	Edge of Town		
	No Sub Category		
	Total Gross floor area:	11305 sqm	
	Survey date: WEDNESDAY	17/10/18	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AG-02-D-02	too much b1
CW-02-D-03	no b2
EX-02-D-04	no b2
NY-02-D-02	too much B1
TW-02-D-08	too much B1
WL-02-D-02	no b2
WM-02-D-02	no b2
WO-02-D-03	too much B1

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
 MULTI-MODAL VEHICLES
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	14290	0.247	7	14290	0.065	7	14290	0.312
08:00 - 09:00	7	14290	0.373	7	14290	0.154	7	14290	0.527
09:00 - 10:00	7	14290	0.248	7	14290	0.182	7	14290	0.430
10:00 - 11:00	7	14290	0.234	7	14290	0.216	7	14290	0.450
11:00 - 12:00	7	14290	0.222	7	14290	0.205	7	14290	0.427
12:00 - 13:00	7	14290	0.238	7	14290	0.257	7	14290	0.495
13:00 - 14:00	7	14290	0.247	7	14290	0.229	7	14290	0.476
14:00 - 15:00	7	14290	0.251	7	14290	0.248	7	14290	0.499
15:00 - 16:00	7	14290	0.216	7	14290	0.279	7	14290	0.495
16:00 - 17:00	7	14290	0.289	7	14290	0.358	7	14290	0.647
17:00 - 18:00	7	14290	0.194	7	14290	0.416	7	14290	0.610
18:00 - 19:00	7	14290	0.090	7	14290	0.169	7	14290	0.259
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		2.849			2.778				5.627

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	7525 - 21250 (units: sqm)
Survey date date range:	01/01/11 - 12/03/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	8

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
 MULTI-MODAL CYCLISTS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	14290	0.008	7	14290	0.000	7	14290	0.008
08:00 - 09:00	7	14290	0.011	7	14290	0.000	7	14290	0.011
09:00 - 10:00	7	14290	0.006	7	14290	0.000	7	14290	0.006
10:00 - 11:00	7	14290	0.004	7	14290	0.001	7	14290	0.005
11:00 - 12:00	7	14290	0.000	7	14290	0.001	7	14290	0.001
12:00 - 13:00	7	14290	0.000	7	14290	0.002	7	14290	0.002
13:00 - 14:00	7	14290	0.002	7	14290	0.001	7	14290	0.003
14:00 - 15:00	7	14290	0.002	7	14290	0.003	7	14290	0.005
15:00 - 16:00	7	14290	0.002	7	14290	0.004	7	14290	0.006
16:00 - 17:00	7	14290	0.000	7	14290	0.009	7	14290	0.009
17:00 - 18:00	7	14290	0.001	7	14290	0.010	7	14290	0.011
18:00 - 19:00	7	14290	0.000	7	14290	0.006	7	14290	0.006
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.037			0.073

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	14290	0.295	7	14290	0.077	7	14290	0.372
08:00 - 09:00	7	14290	0.466	7	14290	0.216	7	14290	0.682
09:00 - 10:00	7	14290	0.317	7	14290	0.223	7	14290	0.540
10:00 - 11:00	7	14290	0.287	7	14290	0.278	7	14290	0.565
11:00 - 12:00	7	14290	0.280	7	14290	0.259	7	14290	0.539
12:00 - 13:00	7	14290	0.307	7	14290	0.345	7	14290	0.652
13:00 - 14:00	7	14290	0.313	7	14290	0.306	7	14290	0.619
14:00 - 15:00	7	14290	0.315	7	14290	0.306	7	14290	0.621
15:00 - 16:00	7	14290	0.296	7	14290	0.351	7	14290	0.647
16:00 - 17:00	7	14290	0.489	7	14290	0.450	7	14290	0.939
17:00 - 18:00	7	14290	0.312	7	14290	0.575	7	14290	0.887
18:00 - 19:00	7	14290	0.138	7	14290	0.269	7	14290	0.407
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.815			3.655			7.470

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PEDESTRIANS
 Calculation factor: 100 sqm
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	14290	0.020	7	14290	0.005	7	14290	0.025
08:00 - 09:00	7	14290	0.026	7	14290	0.012	7	14290	0.038
09:00 - 10:00	7	14290	0.011	7	14290	0.005	7	14290	0.016
10:00 - 11:00	7	14290	0.010	7	14290	0.014	7	14290	0.024
11:00 - 12:00	7	14290	0.022	7	14290	0.022	7	14290	0.044
12:00 - 13:00	7	14290	0.020	7	14290	0.033	7	14290	0.053
13:00 - 14:00	7	14290	0.021	7	14290	0.020	7	14290	0.041
14:00 - 15:00	7	14290	0.026	7	14290	0.016	7	14290	0.042
15:00 - 16:00	7	14290	0.023	7	14290	0.023	7	14290	0.046
16:00 - 17:00	7	14290	0.014	7	14290	0.037	7	14290	0.051
17:00 - 18:00	7	14290	0.015	7	14290	0.021	7	14290	0.036
18:00 - 19:00	7	14290	0.011	7	14290	0.008	7	14290	0.019
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.219			0.216			0.435

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 100 sqm
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	14290	0.003	7	14290	0.007	7	14290	0.010
08:00 - 09:00	7	14290	0.009	7	14290	0.000	7	14290	0.009
09:00 - 10:00	7	14290	0.001	7	14290	0.000	7	14290	0.001
10:00 - 11:00	7	14290	0.005	7	14290	0.006	7	14290	0.011
11:00 - 12:00	7	14290	0.004	7	14290	0.004	7	14290	0.008
12:00 - 13:00	7	14290	0.003	7	14290	0.000	7	14290	0.003
13:00 - 14:00	7	14290	0.004	7	14290	0.003	7	14290	0.007
14:00 - 15:00	7	14290	0.002	7	14290	0.005	7	14290	0.007
15:00 - 16:00	7	14290	0.002	7	14290	0.004	7	14290	0.006
16:00 - 17:00	7	14290	0.004	7	14290	0.003	7	14290	0.007
17:00 - 18:00	7	14290	0.008	7	14290	0.009	7	14290	0.017
18:00 - 19:00	7	14290	0.000	7	14290	0.002	7	14290	0.002
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.045			0.043			0.088

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

Calculation Reference: AUDIT-705112-211111-1142

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
 Category : G - GP SURGERIES
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	IW ISLE OF WIGHT	1 days
03	SOUTH WEST	
	DV DEVON	1 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	LN LINCOLNSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	2 days
09	NORTH	
	TW TYNE & WEAR	2 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	DU DUNDEE CITY	1 days
	HI HIGHLAND	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of doctors
 Actual Range: 2 to 23 (units:)
 Range Selected by User: 2 to 23 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 25/09/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	1 days
Wednesday	8 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town Centre	6
Suburban Area (PPS6 Out of Centre)	3
Edge of Town	2
Neighbourhood Centre (PPS6 Local Centre)	4

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

E(e) 15 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	2 days
15,001 to 20,000	4 days
20,001 to 25,000	1 days
25,001 to 50,000	7 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	3 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	4 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	6 days
1.1 to 1.5	8 days
2.1 to 2.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 15 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 15 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CF-05-G-02	GP SURGERY		CARDIFF
	PARK ROAD			
	CARDIFF			
	WHITCHURCH			
	Edge of Town			
	Residential Zone			
	Total Number of doctors:	7		
	Survey date: WEDNESDAY	05/10/16	Survey Type: MANUAL	
2	CH-05-G-04	GP SURGERY		CHESHIRE
	LONDON ROAD			
	NORTHWICH			
	Edge of Town Centre			
	Residential Zone			
	Total Number of doctors:	17		
	Survey date: WEDNESDAY	05/06/19	Survey Type: MANUAL	
3	CH-05-G-05	GP SURGERY		CHESHIRE
	KINGSMEAD SQUARE			
	NORTHWICH			
	KINGSMEAD			
	Neighbourhood Centre (PPS6 Local Centre)			
	Residential Zone			
	Total Number of doctors:	3		
	Survey date: FRIDAY	07/06/19	Survey Type: MANUAL	
4	DS-05-G-01	GP SURGERY		DERBYSHIRE
	OSMASTON ROAD			
	DERBY			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of doctors:	10		
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL	
5	DU-05-G-01	GP SURGERY		DUNDEE CITY
	PRINCES STREET			
	DUNDEE			
	Edge of Town Centre			
	Built-Up Zone			
	Total Number of doctors:	5		
	Survey date: MONDAY	24/04/17	Survey Type: MANUAL	
6	DV-05-G-01	GP SURGERY		DEVON
	MOUNT PLEASANT ROAD			
	EXETER			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of doctors:	23		
	Survey date: WEDNESDAY	03/04/19	Survey Type: MANUAL	
7	HI-05-G-01	GP SURGERY		HIGHLAND
	BALLIFEARY LANE			
	INVERNESS			
	Edge of Town Centre			
	No Sub Category			
	Total Number of doctors:	12		
	Survey date: MONDAY	16/04/18	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

8	IW-05-G-01 NEWPORT ROAD COWES	GP SURGERY		ISLE OF WIGHT
	Edge of Town Residential Zone Total Number of doctors:		5	
	Survey date: WEDNESDAY		26/06/19	Survey Type: MANUAL
9	LN-05-G-01 95 MONKS ROAD LINCOLN	GP SURGERY		LINCOLNSHIRE
	Edge of Town Centre Residential Zone Total Number of doctors:		4	
	Survey date: TUESDAY		25/06/13	Survey Type: MANUAL
10	NT-05-G-01 MANSFIELD ROAD NOTTINGHAM	GP SURGERY		NOTTINGHAMSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of doctors:		2	
	Survey date: WEDNESDAY		24/06/15	Survey Type: MANUAL
11	NY-05-G-02 ASH TREE ROAD KNARESBOROUGH	GP SURGERY		NORTH YORKSHIRE
	Edge of Town Centre Residential Zone Total Number of doctors:		6	
	Survey date: WEDNESDAY		28/09/16	Survey Type: MANUAL
12	SM-05-G-02 COAL ORCHARD TAUNTON	GP SURGERY		SOMERSET
	Edge of Town Centre Built-Up Zone Total Number of doctors:		10	
	Survey date: WEDNESDAY		03/04/19	Survey Type: MANUAL
13	TW-05-G-03 CHURCH ROAD NEWCASTLE GOSFORTH	GP SURGERY		TYNE & WEAR
	Neighbourhood Centre (PPS6 Local Centre) High Street Total Number of doctors:		10	
	Survey date: MONDAY		29/04/19	Survey Type: MANUAL
14	TW-05-G-04 MANOR WALK NEWCASTLE UPON TYNE BENTON	GP SURGERY		TYNE & WEAR
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone Total Number of doctors:		7	
	Survey date: THURSDAY		18/10/18	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	WL-05-G-01	GP SURGERY	WILTSHIRE
	CRICKDALE ROAD		
	SWINDON BOROUGH C.		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Number of doctors:	4	
	Survey date: FRIDAY	23/09/16	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
 MULTI-MODAL TOTAL VEHICLES
 Calculation factor: 1 DOCTOR
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.143	1	7	0.000	1	7	0.143
07:00 - 08:00	12	9	0.869	12	9	0.168	12	9	1.037
08:00 - 09:00	15	8	2.792	15	8	1.248	15	8	4.040
09:00 - 10:00	15	8	2.760	15	8	2.480	15	8	5.240
10:00 - 11:00	15	8	2.592	15	8	2.512	15	8	5.104
11:00 - 12:00	15	8	2.248	15	8	2.640	15	8	4.888
12:00 - 13:00	15	8	1.824	15	8	2.176	15	8	4.000
13:00 - 14:00	15	8	1.544	15	8	1.672	15	8	3.216
14:00 - 15:00	15	8	2.384	15	8	2.240	15	8	4.624
15:00 - 16:00	15	8	2.128	15	8	2.376	15	8	4.504
16:00 - 17:00	15	8	2.056	15	8	2.256	15	8	4.312
17:00 - 18:00	15	8	1.368	15	8	2.000	15	8	3.368
18:00 - 19:00	13	9	0.483	13	9	0.922	13	9	1.405
19:00 - 20:00	3	9	0.185	3	9	0.444	3	9	0.629
20:00 - 21:00	2	9	0.059	2	9	0.412	2	9	0.471
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			23.435			23.546			46.981

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected: 2 - 23 (units:)
 Survey date range: 01/01/13 - 25/09/19
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Tetrattech Rotterdam House, Quayside Newcastle upon Tyne

Licence No: 705112

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES

MULTI-MODAL CYCLISTS

Calculation factor: 1 DOCTOR

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.000	1	7	0.000	1	7	0.000
07:00 - 08:00	12	9	0.075	12	9	0.019	12	9	0.094
08:00 - 09:00	15	8	0.080	15	8	0.056	15	8	0.136
09:00 - 10:00	15	8	0.080	15	8	0.056	15	8	0.136
10:00 - 11:00	15	8	0.080	15	8	0.064	15	8	0.144
11:00 - 12:00	15	8	0.040	15	8	0.064	15	8	0.104
12:00 - 13:00	15	8	0.080	15	8	0.072	15	8	0.152
13:00 - 14:00	15	8	0.024	15	8	0.056	15	8	0.080
14:00 - 15:00	15	8	0.064	15	8	0.056	15	8	0.120
15:00 - 16:00	15	8	0.064	15	8	0.048	15	8	0.112
16:00 - 17:00	15	8	0.056	15	8	0.064	15	8	0.120
17:00 - 18:00	15	8	0.024	15	8	0.056	15	8	0.080
18:00 - 19:00	13	9	0.009	13	9	0.026	13	9	0.035
19:00 - 20:00	3	9	0.000	3	9	0.000	3	9	0.000
20:00 - 21:00	2	9	0.000	2	9	0.000	2	9	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.676			0.637			1.313

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DOCTOR

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.143	1	7	0.000	1	7	0.143
07:00 - 08:00	12	9	0.981	12	9	0.168	12	9	1.149
08:00 - 09:00	15	8	3.504	15	8	1.488	15	8	4.992
09:00 - 10:00	15	8	3.776	15	8	3.320	15	8	7.096
10:00 - 11:00	15	8	3.456	15	8	3.264	15	8	6.720
11:00 - 12:00	15	8	2.936	15	8	3.368	15	8	6.304
12:00 - 13:00	15	8	2.376	15	8	2.864	15	8	5.240
13:00 - 14:00	15	8	2.232	15	8	2.272	15	8	4.504
14:00 - 15:00	15	8	3.136	15	8	3.024	15	8	6.160
15:00 - 16:00	15	8	3.136	15	8	3.440	15	8	6.576
16:00 - 17:00	15	8	3.064	15	8	3.440	15	8	6.504
17:00 - 18:00	15	8	1.744	15	8	2.624	15	8	4.368
18:00 - 19:00	13	9	0.672	13	9	1.241	13	9	1.913
19:00 - 20:00	3	9	0.296	3	9	0.778	3	9	1.074
20:00 - 21:00	2	9	0.118	2	9	0.765	2	9	0.883
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			31.570			32.056			63.626

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DOCTOR

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.000	1	7	0.000	1	7	0.000
07:00 - 08:00	12	9	0.178	12	9	0.103	12	9	0.281
08:00 - 09:00	15	8	1.072	15	8	0.744	15	8	1.816
09:00 - 10:00	15	8	1.856	15	8	1.864	15	8	3.720
10:00 - 11:00	15	8	1.736	15	8	1.720	15	8	3.456
11:00 - 12:00	15	8	1.480	15	8	1.792	15	8	3.272
12:00 - 13:00	15	8	1.208	15	8	1.344	15	8	2.552
13:00 - 14:00	15	8	1.128	15	8	0.872	15	8	2.000
14:00 - 15:00	15	8	1.288	15	8	1.216	15	8	2.504
15:00 - 16:00	15	8	1.216	15	8	1.200	15	8	2.416
16:00 - 17:00	15	8	1.064	15	8	1.152	15	8	2.216
17:00 - 18:00	15	8	0.728	15	8	1.024	15	8	1.752
18:00 - 19:00	13	9	0.241	13	9	0.293	13	9	0.534
19:00 - 20:00	3	9	0.407	3	9	0.333	3	9	0.740
20:00 - 21:00	2	9	0.353	2	9	0.176	2	9	0.529
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			13.955			13.833			27.788

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES
 MULTI-MODAL PUBLIC TRANSPORT USERS
 Calculation factor: 1 DOCTOR
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.000	1	7	0.000	1	7	0.000
07:00 - 08:00	12	9	0.224	12	9	0.009	12	9	0.233
08:00 - 09:00	15	8	0.512	15	8	0.080	15	8	0.592
09:00 - 10:00	15	8	0.504	15	8	0.344	15	8	0.848
10:00 - 11:00	15	8	0.528	15	8	0.464	15	8	0.992
11:00 - 12:00	15	8	0.488	15	8	0.544	15	8	1.032
12:00 - 13:00	15	8	0.368	15	8	0.376	15	8	0.744
13:00 - 14:00	15	8	0.328	15	8	0.376	15	8	0.704
14:00 - 15:00	15	8	0.344	15	8	0.408	15	8	0.752
15:00 - 16:00	15	8	0.272	15	8	0.288	15	8	0.560
16:00 - 17:00	15	8	0.368	15	8	0.496	15	8	0.864
17:00 - 18:00	15	8	0.136	15	8	0.368	15	8	0.504
18:00 - 19:00	13	9	0.026	13	9	0.216	13	9	0.242
19:00 - 20:00	3	9	0.000	3	9	0.333	3	9	0.333
20:00 - 21:00	2	9	0.000	2	9	0.059	2	9	0.059
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.098			4.361			8.459

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DOCTOR

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate	No. Days	Ave. DOCTOR	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	7	0.143	1	7	0.000	1	7	0.143
07:00 - 08:00	12	9	1.458	12	9	0.299	12	9	1.757
08:00 - 09:00	15	8	5.168	15	8	2.368	15	8	7.536
09:00 - 10:00	15	8	6.216	15	8	5.584	15	8	11.800
10:00 - 11:00	15	8	5.800	15	8	5.512	15	8	11.312
11:00 - 12:00	15	8	4.944	15	8	5.768	15	8	10.712
12:00 - 13:00	15	8	4.032	15	8	4.656	15	8	8.688
13:00 - 14:00	15	8	3.712	15	8	3.576	15	8	7.288
14:00 - 15:00	15	8	4.832	15	8	4.704	15	8	9.536
15:00 - 16:00	15	8	4.688	15	8	4.976	15	8	9.664
16:00 - 17:00	15	8	4.552	15	8	5.152	15	8	9.704
17:00 - 18:00	15	8	2.632	15	8	4.072	15	8	6.704
18:00 - 19:00	13	9	0.948	13	9	1.776	13	9	2.724
19:00 - 20:00	3	9	0.704	3	9	1.444	3	9	2.148
20:00 - 21:00	2	9	0.471	2	9	1.000	2	9	1.471
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			50.300			50.887			101.187

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

Calculation Reference: AUDIT-705112-220121-0128

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
Category : C - INDUSTRIAL UNIT
TOTAL VEHICLES

Selected regions and areas:

08	NORTH WEST	
	LC LANCASHIRE	1 days
10	WALES	
	VG VALE OF GLAMORGAN	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
Actual Range: 1010 to 1500 (units: sqm)
Range Selected by User: 150 to 67459 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 30/06/21

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Thursday 2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count 2 days
Directional ATC Count 0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town 2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone 2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known 2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Secondary Filtering selection (Cont.):

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	2 days

This data displays the number of selected surveys with PTAL Ratings.

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions

LIST OF SITES relevant to selection parameters

1	LC-02-C-04 CHORLEY ROAD BLACKPOOL LITTLE CARLETON Edge of Town Industrial Zone Total Gross floor area: 1010 sqm Survey date: THURSDAY 20/06/19	POWDER COATINGS Survey Type: MANUAL	LANCASHIRE
2	VG-02-C-01 VERLON CLOSE BARRY Edge of Town Industrial Zone Total Gross floor area: 1500 sqm Survey date: THURSDAY 06/05/21	ALCOHOL ANALYSIS PRODUCTS Survey Type: MANUAL	VALE OF GLAMORGAN

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BD-02-C-01	no b1c
BR-02-C-02	no B1b
CF-02-C-02	no B1b
CH-02-C-02	no B1b
CH-02-C-03	no B1b
CH-02-C-04	no B1b
DS-02-C-02	no B1b
DV-02-C-02	no B1b
GS-02-C-02	no B1b
HC-02-C-01	no B1b
HE-02-C-02	no B1b
LC-02-C-03	no B1b
LC-02-C-05	no B1b
NF-02-C-03	no B1b
NF-02-C-04	no B1b
NR-02-C-02	no B1b
SF-02-C-01	no B1b
SR-02-C-01	no B1b
TV-02-C-02	no B1b
WM-02-C-04	no B1b
WY-02-C-02	no B1b

TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00	1	1500	0.067	1	1500	0.000	1	1500	0.067
06:00 - 07:00	1	1500	0.133	1	1500	0.000	1	1500	0.133
07:00 - 08:00	2	1255	0.438	2	1255	0.000	2	1255	0.438
08:00 - 09:00	2	1255	1.116	2	1255	0.040	2	1255	1.156
09:00 - 10:00	2	1255	0.159	2	1255	0.239	2	1255	0.398
10:00 - 11:00	2	1255	0.199	2	1255	0.120	2	1255	0.319
11:00 - 12:00	2	1255	0.159	2	1255	0.120	2	1255	0.279
12:00 - 13:00	2	1255	0.159	2	1255	0.279	2	1255	0.438
13:00 - 14:00	2	1255	0.359	2	1255	0.398	2	1255	0.757
14:00 - 15:00	2	1255	0.279	2	1255	0.279	2	1255	0.558
15:00 - 16:00	2	1255	0.080	2	1255	0.159	2	1255	0.239
16:00 - 17:00	2	1255	0.159	2	1255	0.199	2	1255	0.358
17:00 - 18:00	2	1255	0.000	2	1255	1.355	2	1255	1.355
18:00 - 19:00	2	1255	0.040	2	1255	0.040	2	1255	0.080
19:00 - 20:00	1	1500	0.000	1	1500	0.000	1	1500	0.000
20:00 - 21:00	1	1500	0.000	1	1500	0.000	1	1500	0.000
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.347			3.228			6.575

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	1010 - 1500 (units: sqm)
Survey date date range:	01/01/13 - 30/06/21
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	21

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Calculation Reference: AUDIT-705112-210819-0825

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT
 Category : D - INDUSTRIAL ESTATE
 MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	2 days
	DV DEVON	1 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
11	SCOTLAND	
	FA FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area
 Actual Range: 3600 to 21250 (units: sqm)
 Range Selected by User: 2000 to 974258 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 10/10/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Tuesday	1 days
Wednesday	1 days
Thursday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	4
Residential Zone	2
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

Not Known 7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filter by Site Operations Breakdown:

All Surveys Included

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
15,001 to 20,000	2 days
25,001 to 50,000	4 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

75,001 to 100,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days
500,001 or More	1 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	4 days
1.1 to 1.5	3 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 7 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BR-02-D-04	INDUSTRIAL ESTATE	BRISTOL CITY
	CROFTS END ROAD		
	BRISTOL		
	SPEEDWELL		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18018 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
2	BR-02-D-05	INDUSTRIAL ESTATE	BRISTOL CITY
	NOVERS HILL		
	BRISTOL		
	BEDMINSTER		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	18128 sqm	
	Survey date: FRIDAY	29/11/13	Survey Type: MANUAL
3	DS-02-D-02	INDUSTRIAL ESTATE	DERBYSHIRE
	SHAFTESBURY STREET		
	DERBY		
	ROSE HILL		
	Suburban Area (PPS6 Out of Centre)		
	No Sub Category		
	Total Gross floor area:	5686 sqm	
	Survey date: WEDNESDAY	25/09/19	Survey Type: MANUAL
4	DV-02-D-07	INDUSTRIAL ESTATE	DEVON
	BITTERN ROAD		
	EXETER		
	SOWTON IND. ESTATE		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	3600 sqm	
	Survey date: MONDAY	03/07/17	Survey Type: MANUAL
5	ES-02-D-06	INDUSTRIAL ESTATE	EAST SUSSEX
	COURTLANDS ROAD		
	EASTBOURNE		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	7525 sqm	
	Survey date: MONDAY	21/10/13	Survey Type: MANUAL
6	FA-02-D-02	INDUSTRIAL ESTATE	FALKIRK
	MAIN STREET		
	FALKIRK		
	GRAHAMSTON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	21250 sqm	
	Survey date: THURSDAY	30/05/13	Survey Type: MANUAL
7	WY-02-D-06	INDUSTRIAL ESTATE (PART)	WEST YORKSHIRE
	PIONEER WAY		
	CASTLEFORD		
	Edge of Town		
	Industrial Zone		
	Total Gross floor area:	4328 sqm	
	Survey date: TUESDAY	23/05/17	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
AG-02-D-02	B8 and or B1 too high
CA-02-D-04	B8 and or B1 too high
CM-02-D-03	B8 and or B1 too high
ES-02-D-07	B8 and or B1 too high
EX-02-D-03	B8 and or B1 too high
EX-02-D-04	B8 and or B1 too high
EX-02-D-05	B8 and or B1 too high

MANUALLY DESELECTED SITES (Cont.)

Site Ref	Reason for Deselection
HE-02-D-02	B8 and or B1 too high
LC-02-D-05	B8 and or B1 too high
NY-02-D-02	B8 and or B1 too high
SM-02-D-01	B8 and or B1 too high
SW-02-D-01	B8 and or B1 too high
SW-02-D-02	B8 and or B1 too high
TW-02-D-08	B8 and or B1 too high
VG-02-D-01	B8 and or B1 too high
WK-02-D-01	B8 and or B1 too high
WK-02-D-02	B8 and or B1 too high
WK-02-D-03	B8 and or B1 too high
WK-02-D-04	B8 and or B1 too high
WL-02-D-02	B8 and or B1 too high
WO-02-D-03	B8 and or B1 too high
WY-02-D-07	B8 and or B1 too high
WY-02-D-08	B8 and or B1 too high

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
05:30 - 06:00	1	5686	0.018	1	5686	0.000	1	5686	0.018
06:00 - 06:30	1	5686	0.018	1	5686	0.000	1	5686	0.018
06:30 - 07:00	1	5686	0.000	1	5686	0.018	1	5686	0.018
07:00 - 07:30	7	11219	0.085	7	11219	0.017	7	11219	0.102
07:30 - 08:00	7	11219	0.195	7	11219	0.052	7	11219	0.247
08:00 - 08:30	7	11219	0.197	7	11219	0.094	7	11219	0.291
08:30 - 09:00	7	11219	0.185	7	11219	0.087	7	11219	0.272
09:00 - 09:30	7	11219	0.140	7	11219	0.097	7	11219	0.237
09:30 - 10:00	7	11219	0.125	7	11219	0.098	7	11219	0.223
10:00 - 10:30	7	11219	0.154	7	11219	0.125	7	11219	0.279
10:30 - 11:00	7	11219	0.113	7	11219	0.098	7	11219	0.211
11:00 - 11:30	7	11219	0.112	7	11219	0.110	7	11219	0.222
11:30 - 12:00	7	11219	0.143	7	11219	0.145	7	11219	0.288
12:00 - 12:30	7	11219	0.149	7	11219	0.144	7	11219	0.293
12:30 - 13:00	7	11219	0.139	7	11219	0.145	7	11219	0.284
13:00 - 13:30	7	11219	0.124	7	11219	0.117	7	11219	0.241
13:30 - 14:00	7	11219	0.126	7	11219	0.118	7	11219	0.244
14:00 - 14:30	7	11219	0.150	7	11219	0.144	7	11219	0.294
14:30 - 15:00	7	11219	0.131	7	11219	0.136	7	11219	0.267
15:00 - 15:30	7	11219	0.113	7	11219	0.144	7	11219	0.257
15:30 - 16:00	7	11219	0.107	7	11219	0.158	7	11219	0.265
16:00 - 16:30	7	11219	0.104	7	11219	0.167	7	11219	0.271
16:30 - 17:00	7	11219	0.095	7	11219	0.174	7	11219	0.269
17:00 - 17:30	7	11219	0.064	7	11219	0.204	7	11219	0.268
17:30 - 18:00	7	11219	0.056	7	11219	0.148	7	11219	0.204
18:00 - 18:30	7	11219	0.033	7	11219	0.083	7	11219	0.116
18:30 - 19:00	7	11219	0.032	7	11219	0.039	7	11219	0.071
19:00 - 19:30	1	5686	0.053	1	5686	0.035	1	5686	0.088
19:30 - 20:00	1	5686	0.000	1	5686	0.000	1	5686	0.000
20:00 - 20:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
20:30 - 21:00	1	5686	0.000	1	5686	0.018	1	5686	0.018
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			2.961			2.915			5.876

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	3600 - 21250 (units: sqm)
Survey date range:	01/01/13 - 10/10/19
Number of weekdays (Monday-Friday):	7
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	23

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 00:30									
00:30 - 01:00									
01:00 - 01:30									
01:30 - 02:00									
02:00 - 02:30									
02:30 - 03:00									
03:00 - 03:30									
03:30 - 04:00									
04:00 - 04:30									
04:30 - 05:00									
05:00 - 05:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
05:30 - 06:00	1	5686	0.000	1	5686	0.000	1	5686	0.000
06:00 - 06:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
06:30 - 07:00	1	5686	0.000	1	5686	0.000	1	5686	0.000
07:00 - 07:30	7	11219	0.003	7	11219	0.003	7	11219	0.006
07:30 - 08:00	7	11219	0.005	7	11219	0.011	7	11219	0.016
08:00 - 08:30	7	11219	0.008	7	11219	0.005	7	11219	0.013
08:30 - 09:00	7	11219	0.010	7	11219	0.005	7	11219	0.015
09:00 - 09:30	7	11219	0.006	7	11219	0.011	7	11219	0.017
09:30 - 10:00	7	11219	0.009	7	11219	0.008	7	11219	0.017
10:00 - 10:30	7	11219	0.008	7	11219	0.009	7	11219	0.017
10:30 - 11:00	7	11219	0.010	7	11219	0.006	7	11219	0.016
11:00 - 11:30	7	11219	0.004	7	11219	0.013	7	11219	0.017
11:30 - 12:00	7	11219	0.013	7	11219	0.009	7	11219	0.022
12:00 - 12:30	7	11219	0.013	7	11219	0.009	7	11219	0.022
12:30 - 13:00	7	11219	0.013	7	11219	0.014	7	11219	0.027
13:00 - 13:30	7	11219	0.004	7	11219	0.010	7	11219	0.014
13:30 - 14:00	7	11219	0.011	7	11219	0.005	7	11219	0.016
14:00 - 14:30	7	11219	0.010	7	11219	0.017	7	11219	0.027
14:30 - 15:00	7	11219	0.009	7	11219	0.008	7	11219	0.017
15:00 - 15:30	7	11219	0.011	7	11219	0.009	7	11219	0.020
15:30 - 16:00	7	11219	0.019	7	11219	0.019	7	11219	0.038
16:00 - 16:30	7	11219	0.006	7	11219	0.005	7	11219	0.011
16:30 - 17:00	7	11219	0.005	7	11219	0.006	7	11219	0.011
17:00 - 17:30	7	11219	0.000	7	11219	0.004	7	11219	0.004
17:30 - 18:00	7	11219	0.001	7	11219	0.003	7	11219	0.004
18:00 - 18:30	7	11219	0.000	7	11219	0.000	7	11219	0.000
18:30 - 19:00	7	11219	0.001	7	11219	0.000	7	11219	0.001
19:00 - 19:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
19:30 - 20:00	1	5686	0.000	1	5686	0.000	1	5686	0.000
20:00 - 20:30	1	5686	0.000	1	5686	0.000	1	5686	0.000
20:30 - 21:00	1	5686	0.000	1	5686	0.000	1	5686	0.000
21:00 - 21:30									
21:30 - 22:00									
22:00 - 22:30									
22:30 - 23:00									
23:00 - 23:30									
23:30 - 24:00									
Total Rates:			0.179			0.189			0.368

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

APPENDIX D – CENSUS 2011 EXTRACTS

Commuting Time by Travel to Work Areas, Office for National Statistics

<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/adhocs/10601commutingtimebytraveltoworkareas>

Data: Annual Survey of Hours and Earnings, 2010-2018

TTWA with fewer than 200 observations are excluded. Weighted medians. Confidence intervals are estimated via bootstrapping

			Women			Men			
ttwa code	ttwa name	Age	Median	95% Confidence		Median	95% Confidence		Difference
			Travel	interval		Travel	interval		
			time	Lower	Upper	time	Lower	Upper	
E30000286	Whitehaven	All	15.4	13.2	18.5	17.8	15.5	19.2	2.4
E30000286	Whitehaven	Less than 30	17.2	13.8	19.5	17.2	12.5	24.2	0.0
E30000286	Whitehaven	30 or over	14.5	12.4	18.8	17.8	15.5	19.2	3.3
E30000290	Workington	All	13.5	12.4	15.9	24.0	19.4	29.6	10.5
E30000290	Workington	Less than 30	12.4	8.8	17.3	23.0	16.8	31.0	10.5
E30000290	Workington	30 or over	14.0	12.4	17.0	24.0	19.2	32.8	10.0

KS101EW - Usual resident population

ONS Crown Copyright Reserved [from Nomis on 5 November 2021]

population	All usual residents
units	Persons
rural urban	Total
variable	All usual residents

Copeland

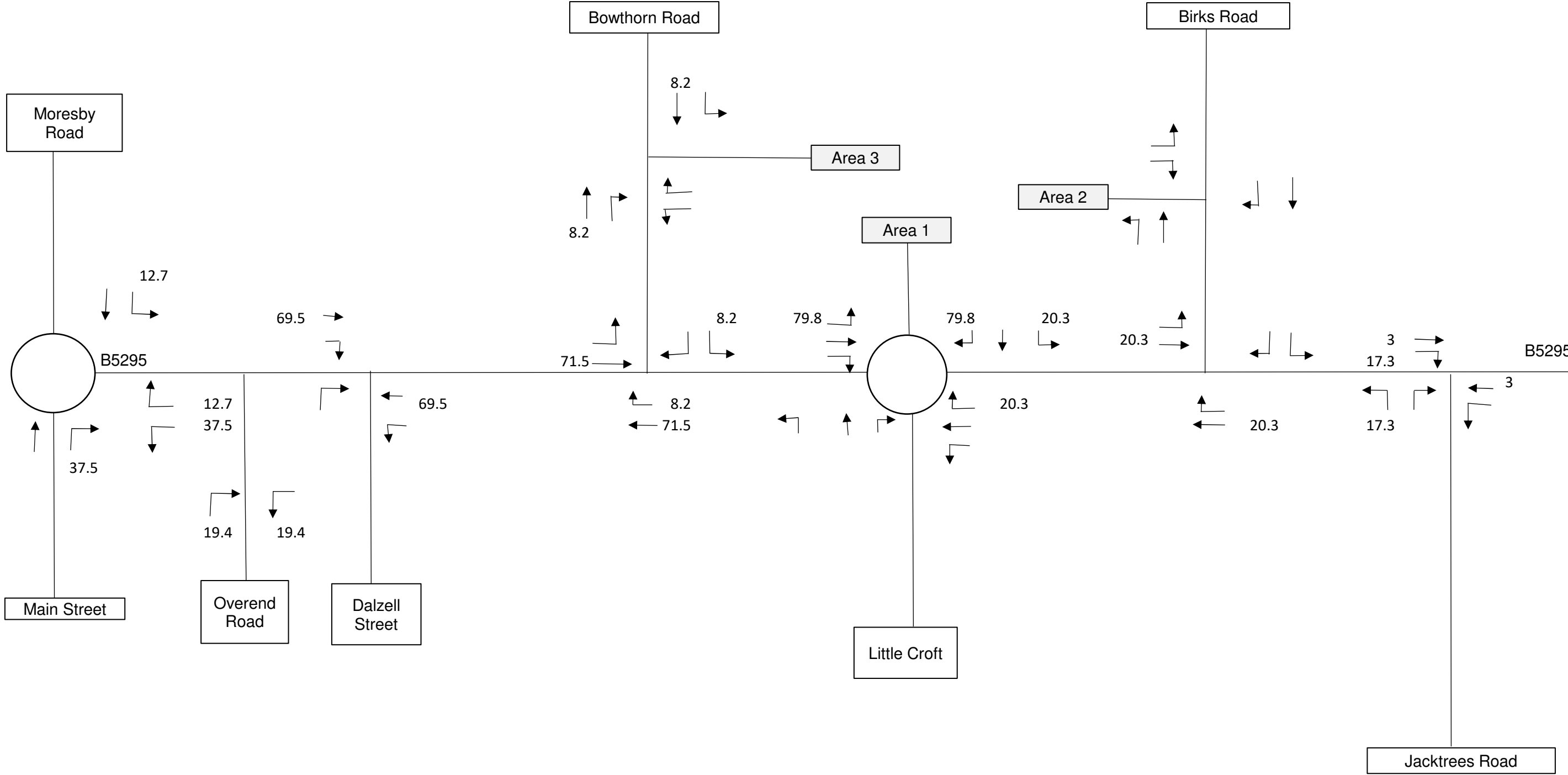
2011 ward	2011
E05003183 : Bransty	5,009
E05003184 : Cleator Moor North	4,120
E05003185 : Cleator Moor South	2,816
E05003186 : Distington	4,058
E05003187 : Egremont North	4,456
E05003188 : Egremont South	3,738
E05003190 : Frizington	2,558
E05003192 : Harbour	4,105
E05003194 : Hensingham	4,145
E05003195 : Hillcrest	2,685
E05003197 : Kells	2,437
E05003199 : Mirehouse	4,498
E05003200 : Moresby	1,448
E05003203 : Sandwith	2,463

Allerdale

2011 ward	2011
E05003114 : All Saints	4,824
E05003117 : Broughton St Bridget's	4,178
E05003118 : Christchurch	3,339
E05003123 : Ellen	3,264
E05003124 : Ellenborough	3,810
E05003125 : Ewanrigg	3,447
E05003126 : Flimby	1,707
E05003127 : Harrington	3,167
E05003131 : Moorclose	4,978
E05003132 : Moss Bay	4,979
E05003133 : Netherhall	3,081
E05003136 : Seaton	5,196
E05003134 : St John's	5,439
E05003135 : St Michael's	5,187
E05003139 : Stainburn	1,694

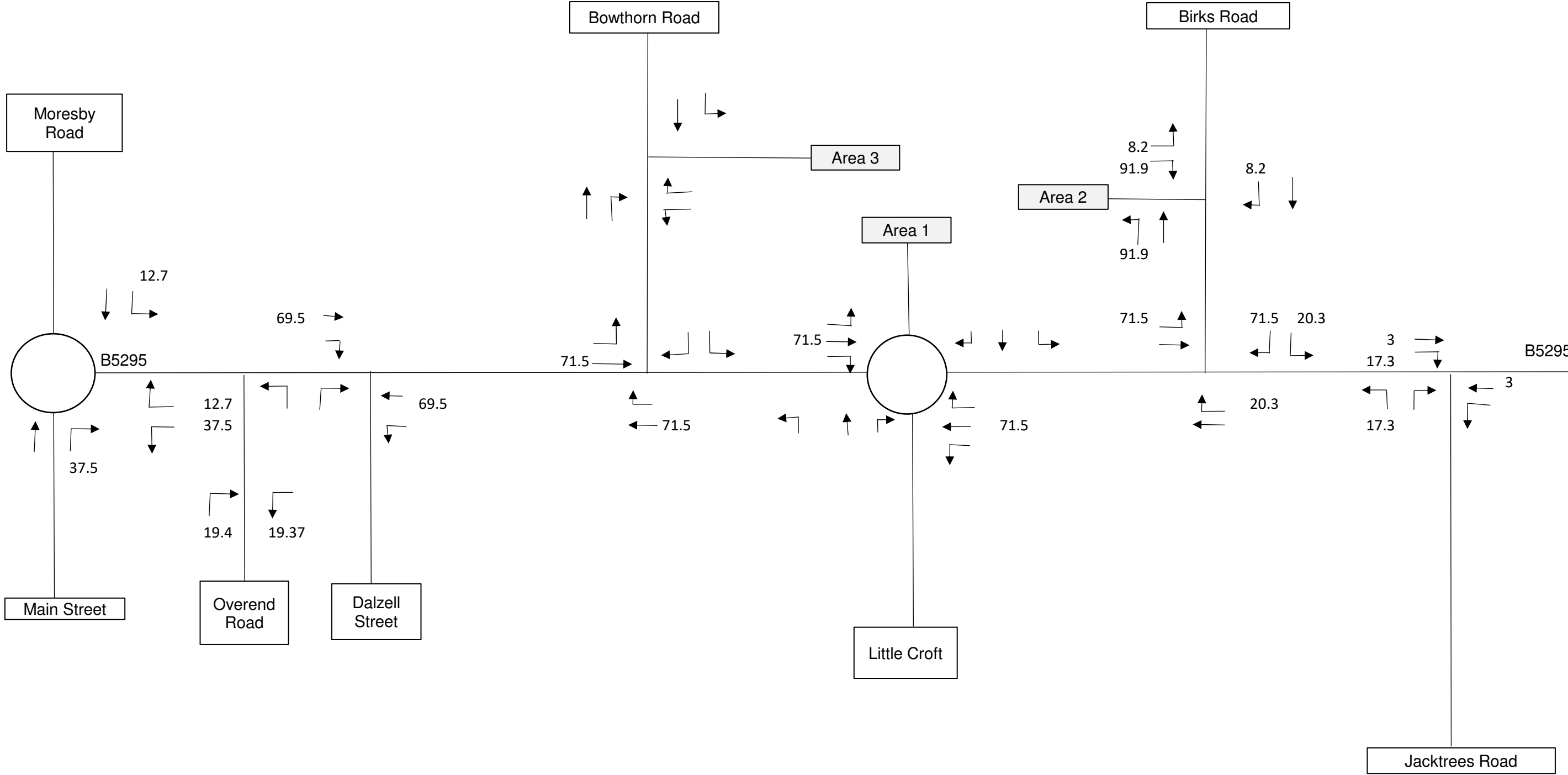
Whitehaven Total	30,848
Cleator/Cleator Moor Total	9,494
Egremont Total	8,194
Maryport Total	15,309
Workington Total	30,640
Cockermouth Total	12,341

APPENDIX E – NETWORK DIAGRAMS



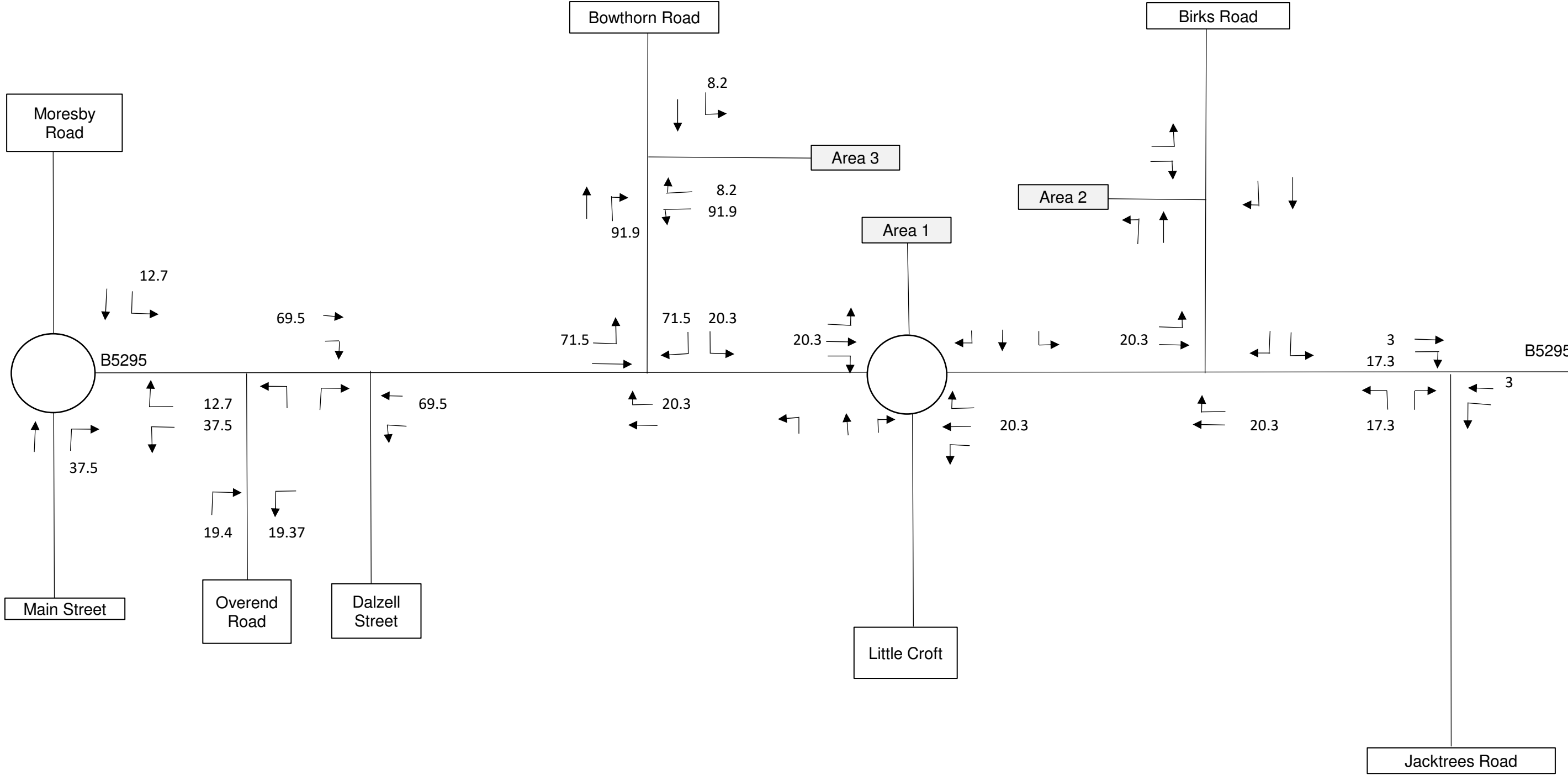
Area 1 - Assignment of Generated Traffic, %

Cleator Moor Innovation Quarter, Leconfield Industrial Estate



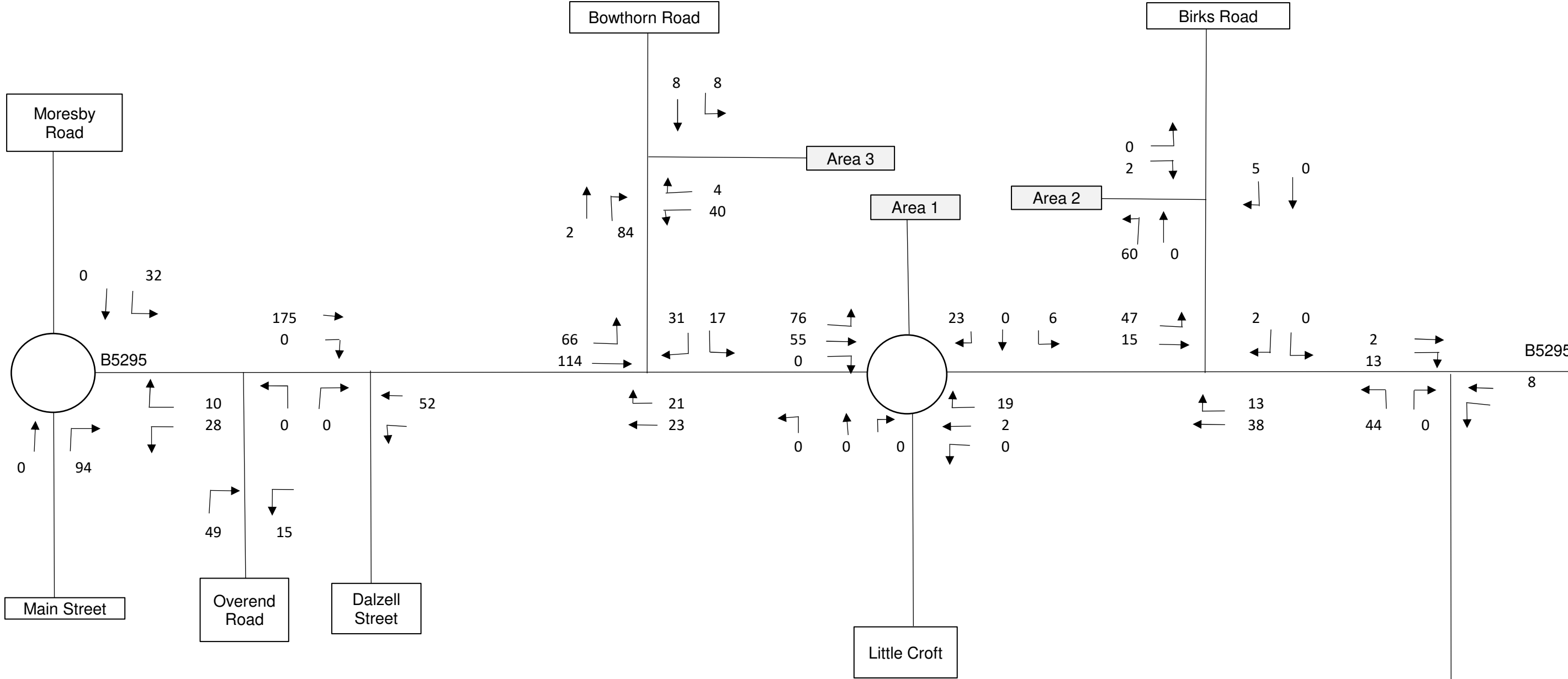
Area 2 - Assignment of Generated Traffic, %

Cleator Moor Innovation Quarter, Leconfield Industrial Estate



Area 3 - Assignment of Generated Traffic, %

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

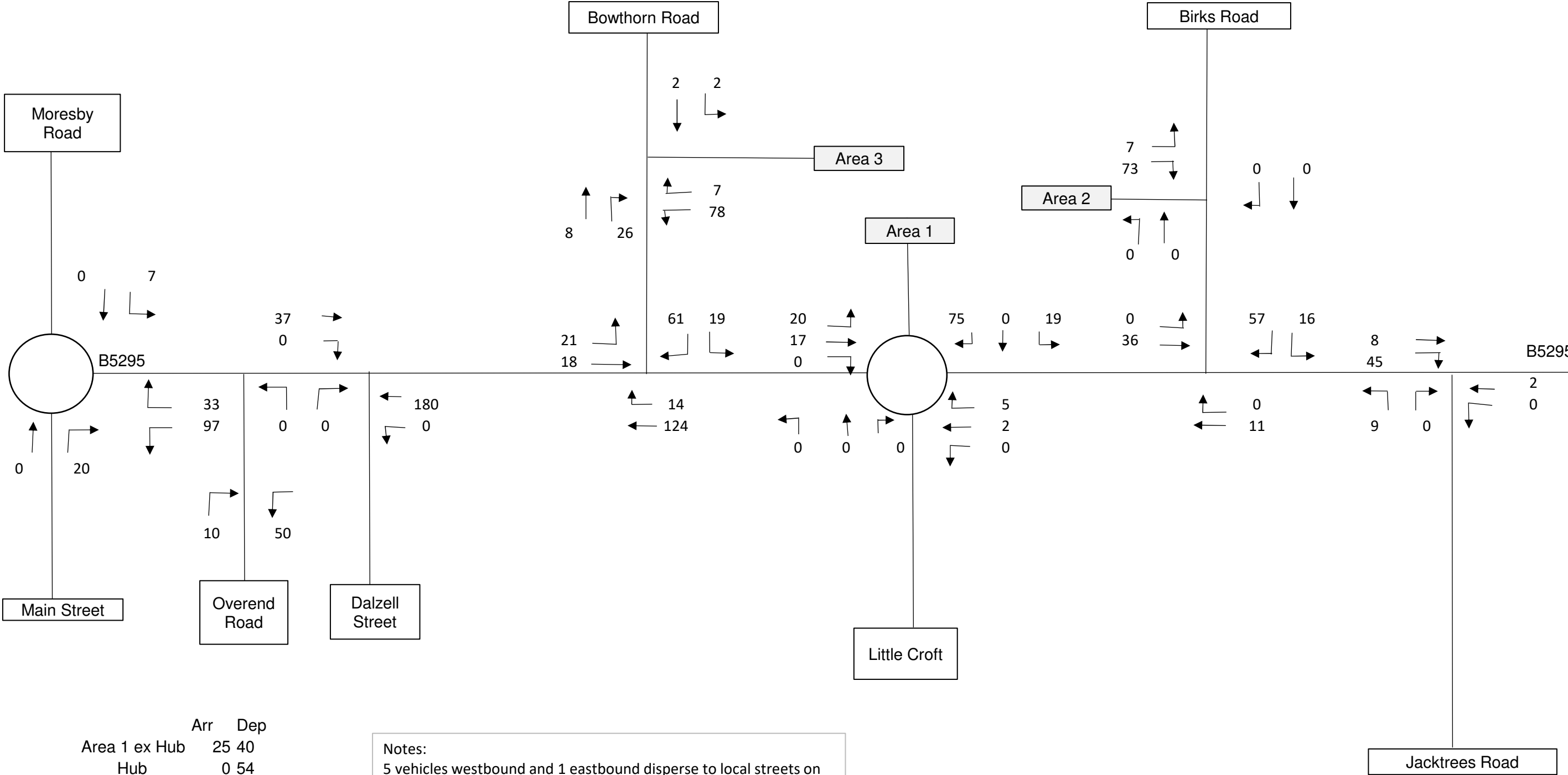


	Arr	Dep
Area 1 ex Hub	50	28
Hub	45	2
Area 2	65	2
Area 3	92	43
Total	252	75

Notes:
2 vehicles westbound and 5 eastbound disperse to local streets on B5295 between Bowthorn Road and Dazell Street.
Traffic on B5295 between Jacktrees Road and A5086 disperses on the local network and does not reach A5086 junction.

Total Development - Generated Traffic, All Vehicles - AM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

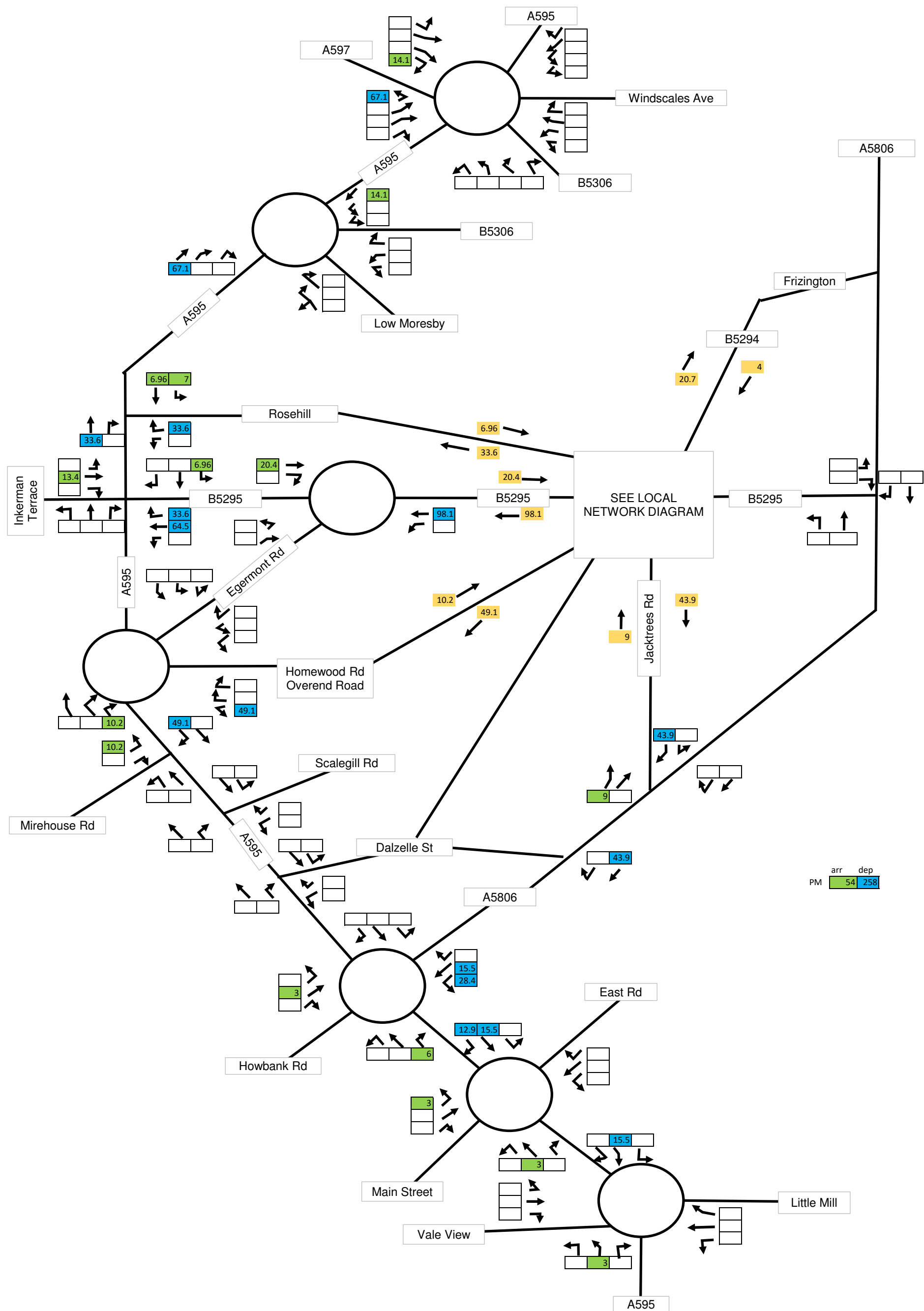


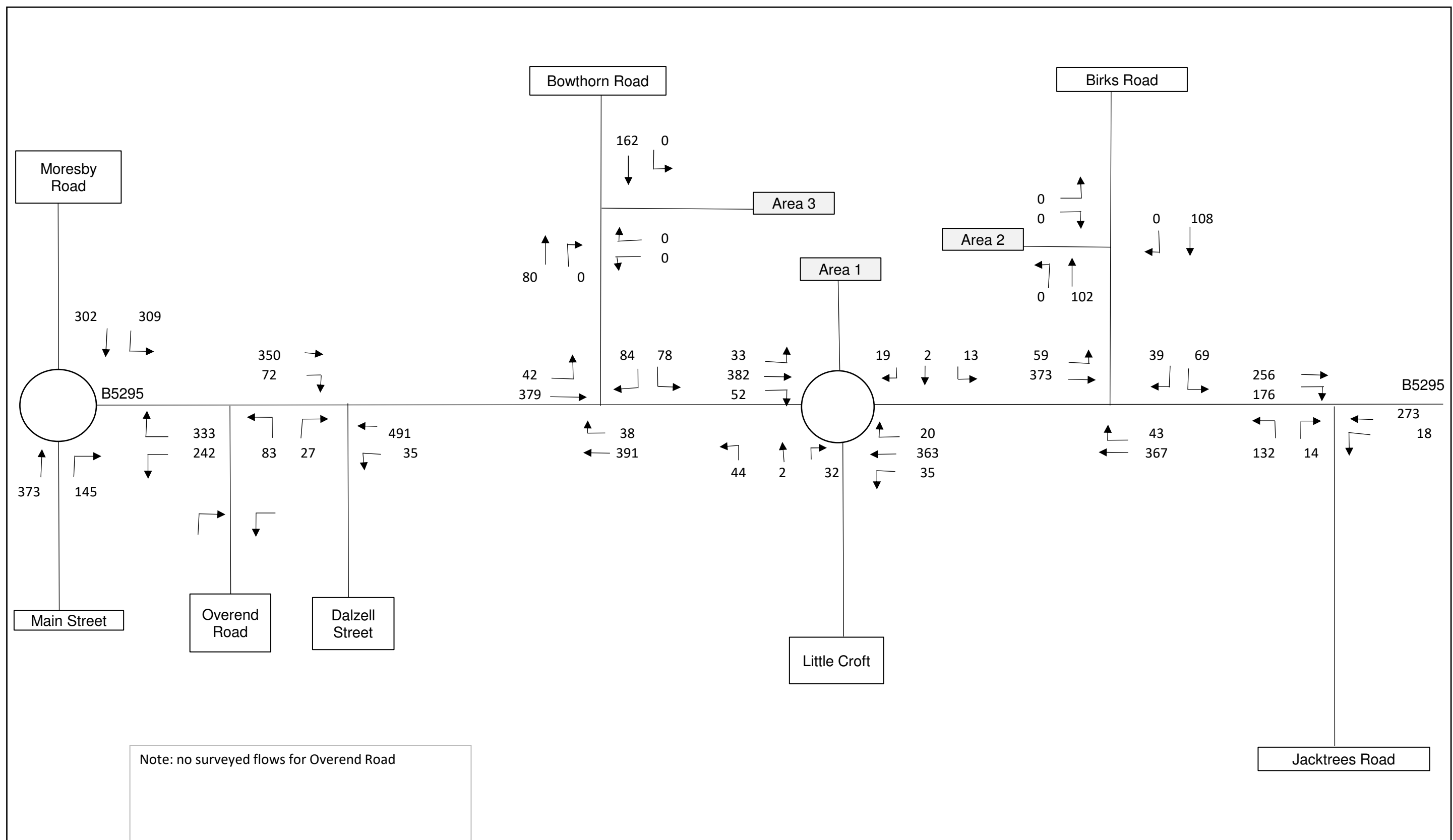
	Arr	Dep
Area 1 ex Hub	25	40
Hub	0	54
Area 2	0	79
Area 3	29	85
Total	54	258

Notes:
5 vehicles westbound and 1 eastbound disperse to local streets on B5295 between Bowthorn Road and Dazell Street.
Traffic on B5295 between Jacktrees Road and A5086 disperses on the local network and does not reach A5086 junction.

Total Development - Generated Traffic, All Vehicles - PM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate



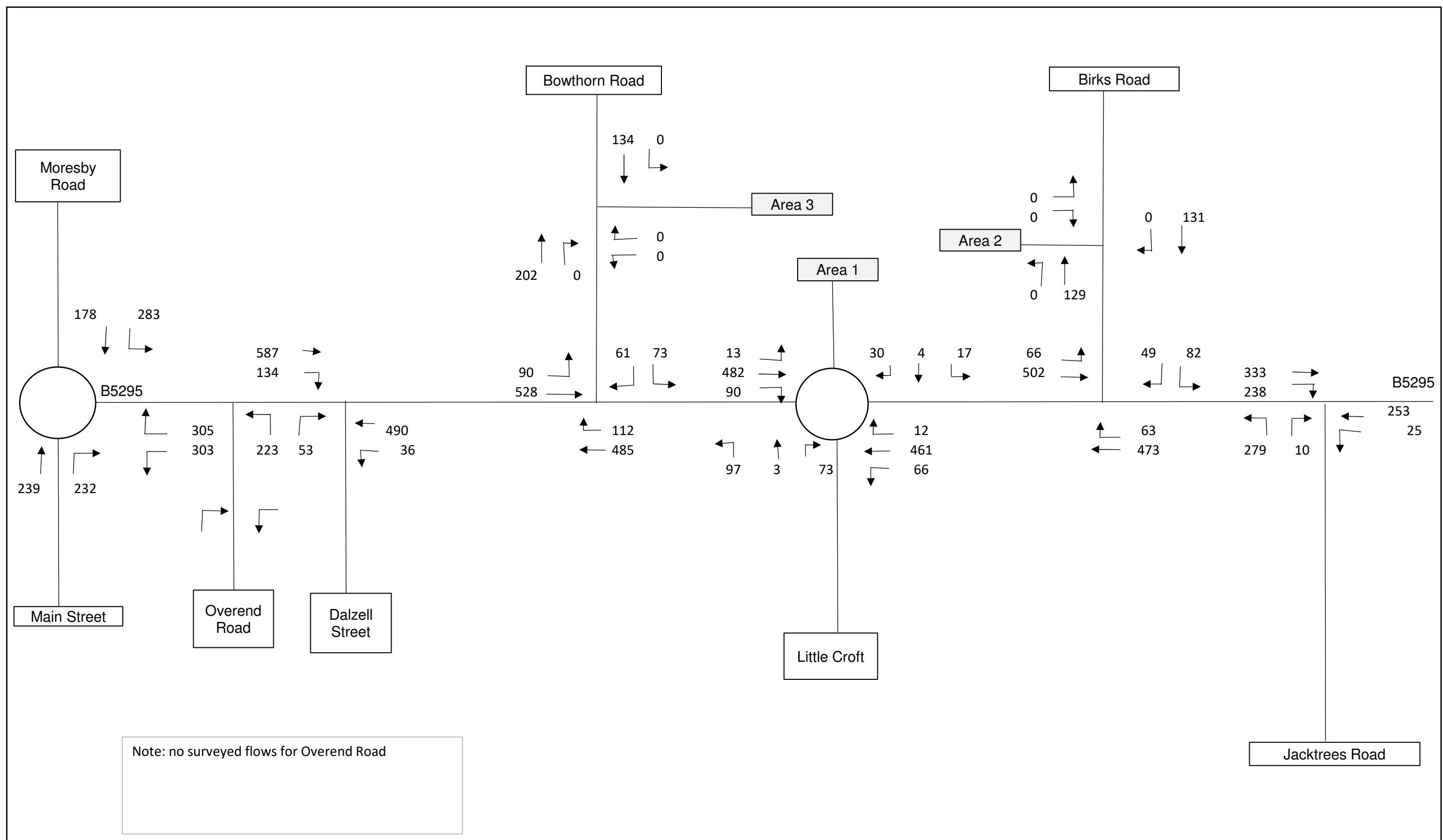


2020 Surveyed Flows - AM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure



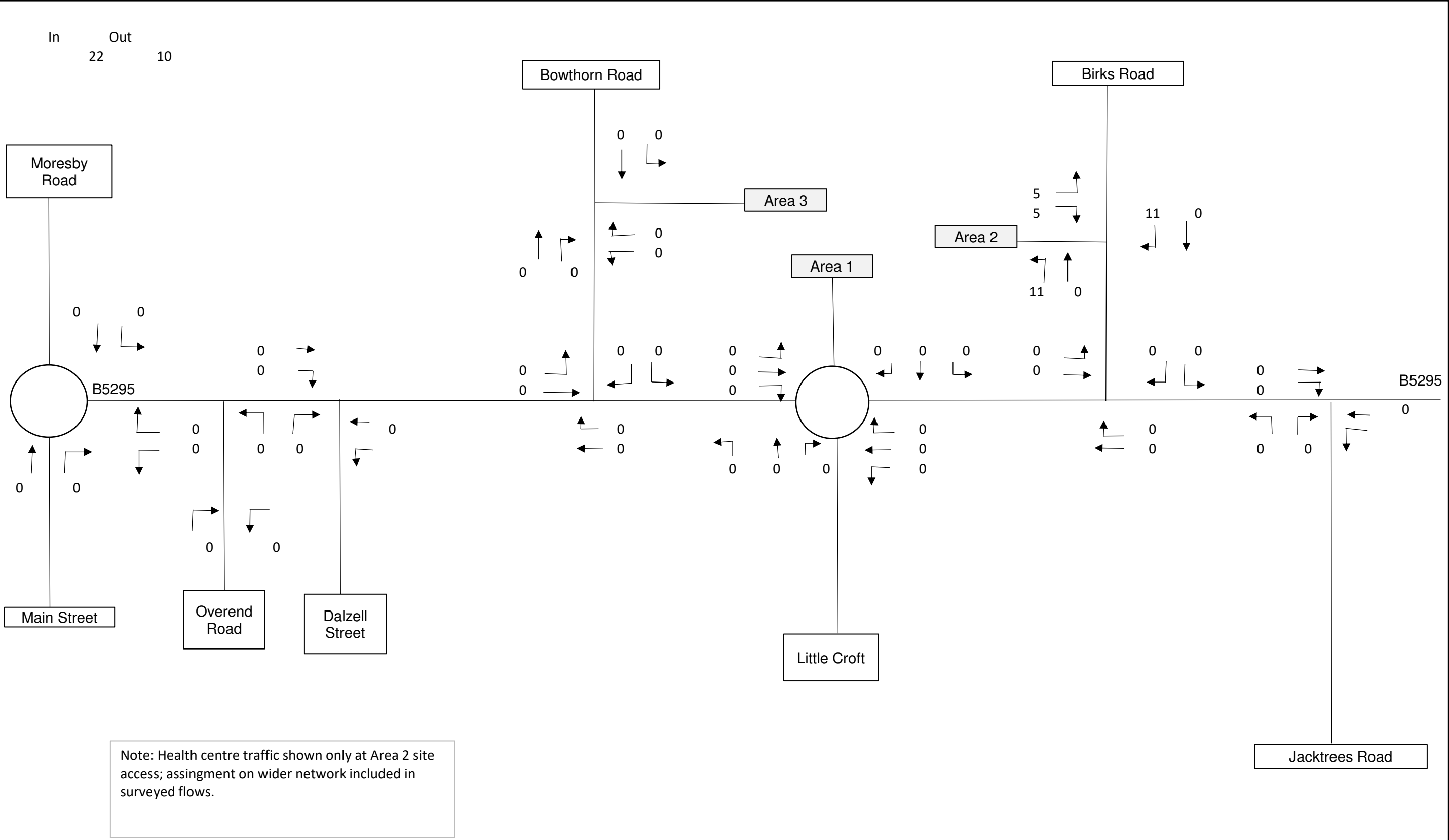


2020 Surveyed Flows - PM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure 13



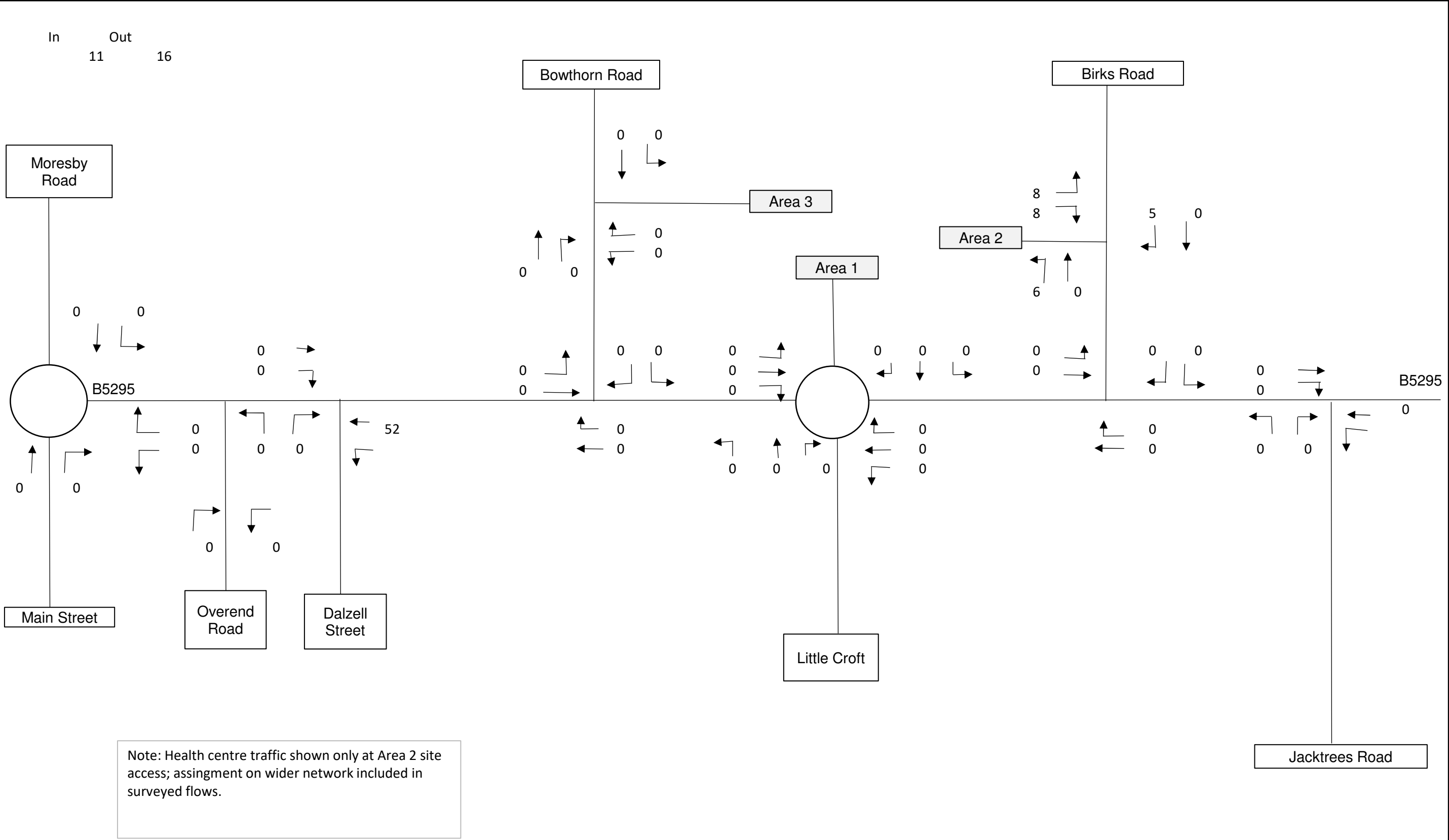


Fellview Health Centre - AM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure 14



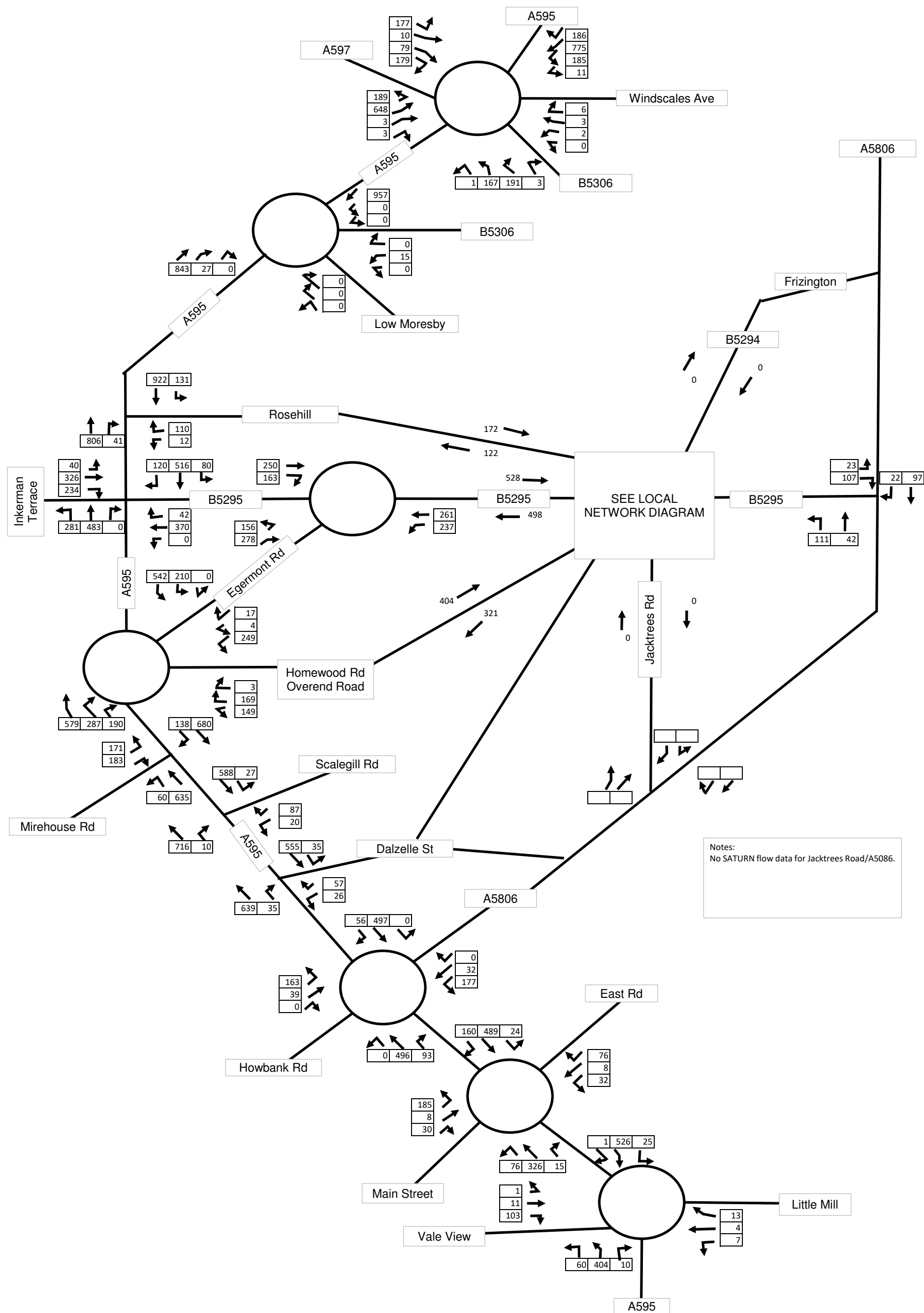


Fellview Health Centre - PM Peak

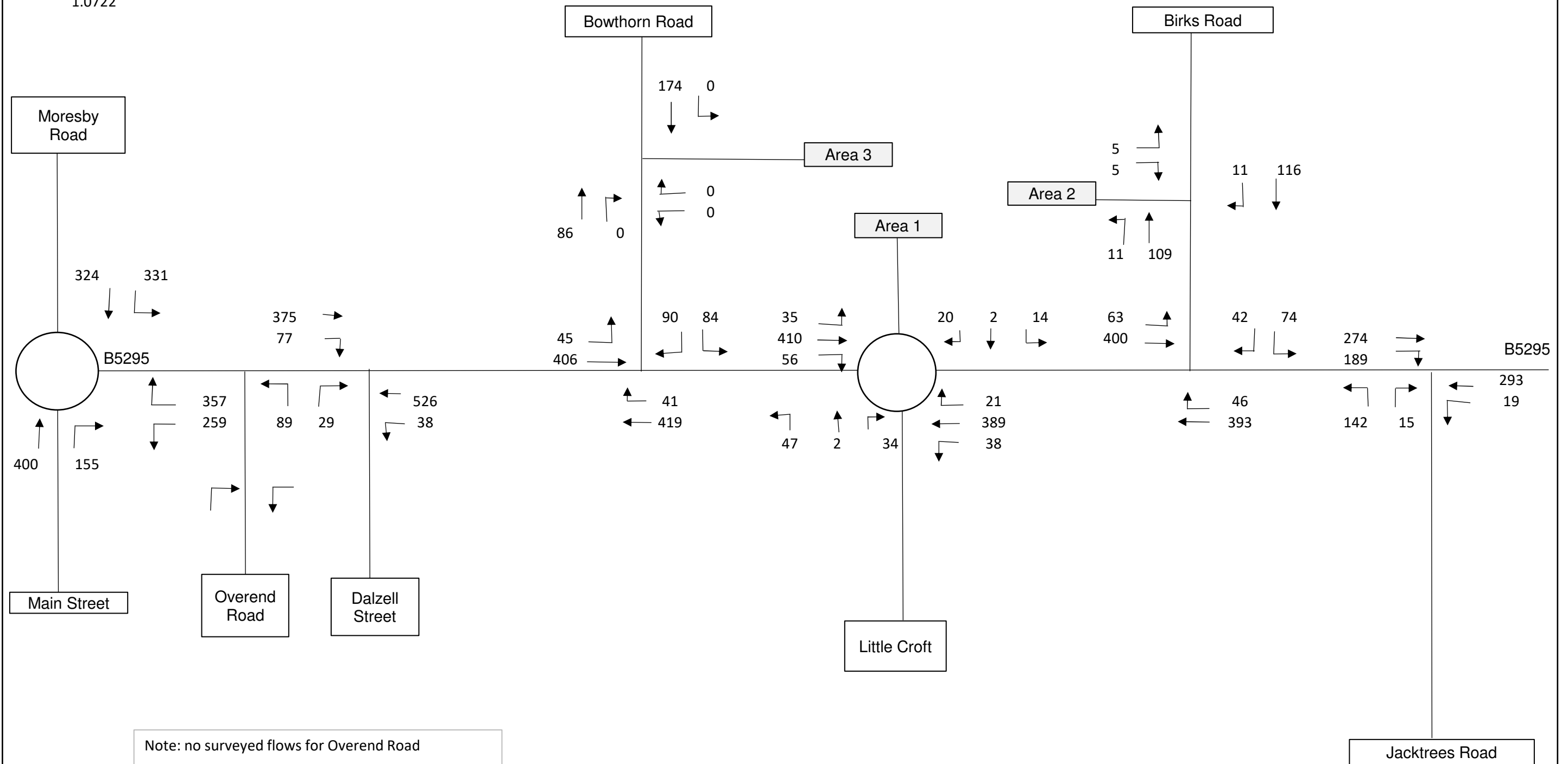
Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure 15





2020-2032
1.0722



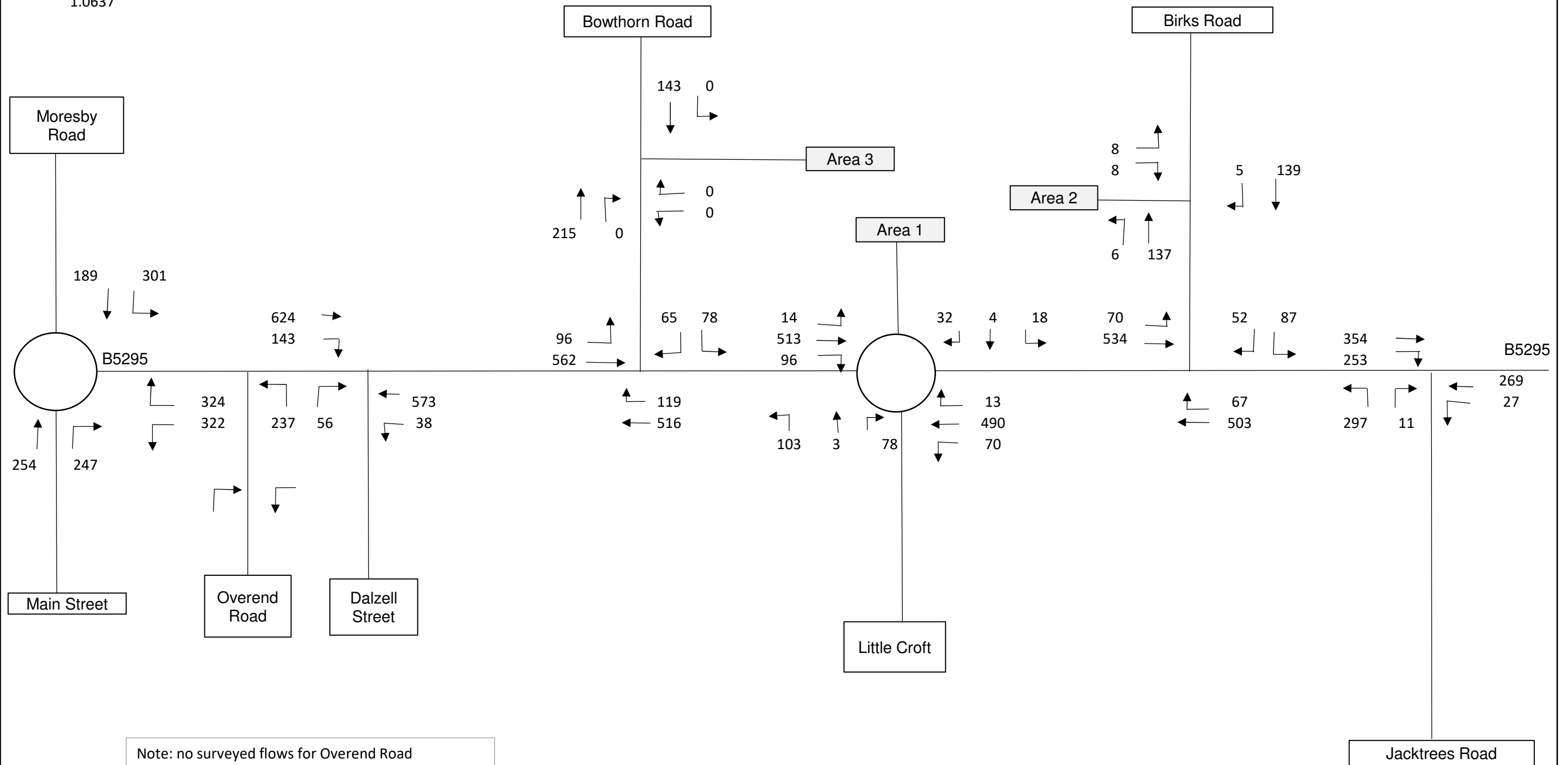
2032 No Development - AM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure
18



2020-2032
1.0637



2032 No Development - PM Peak

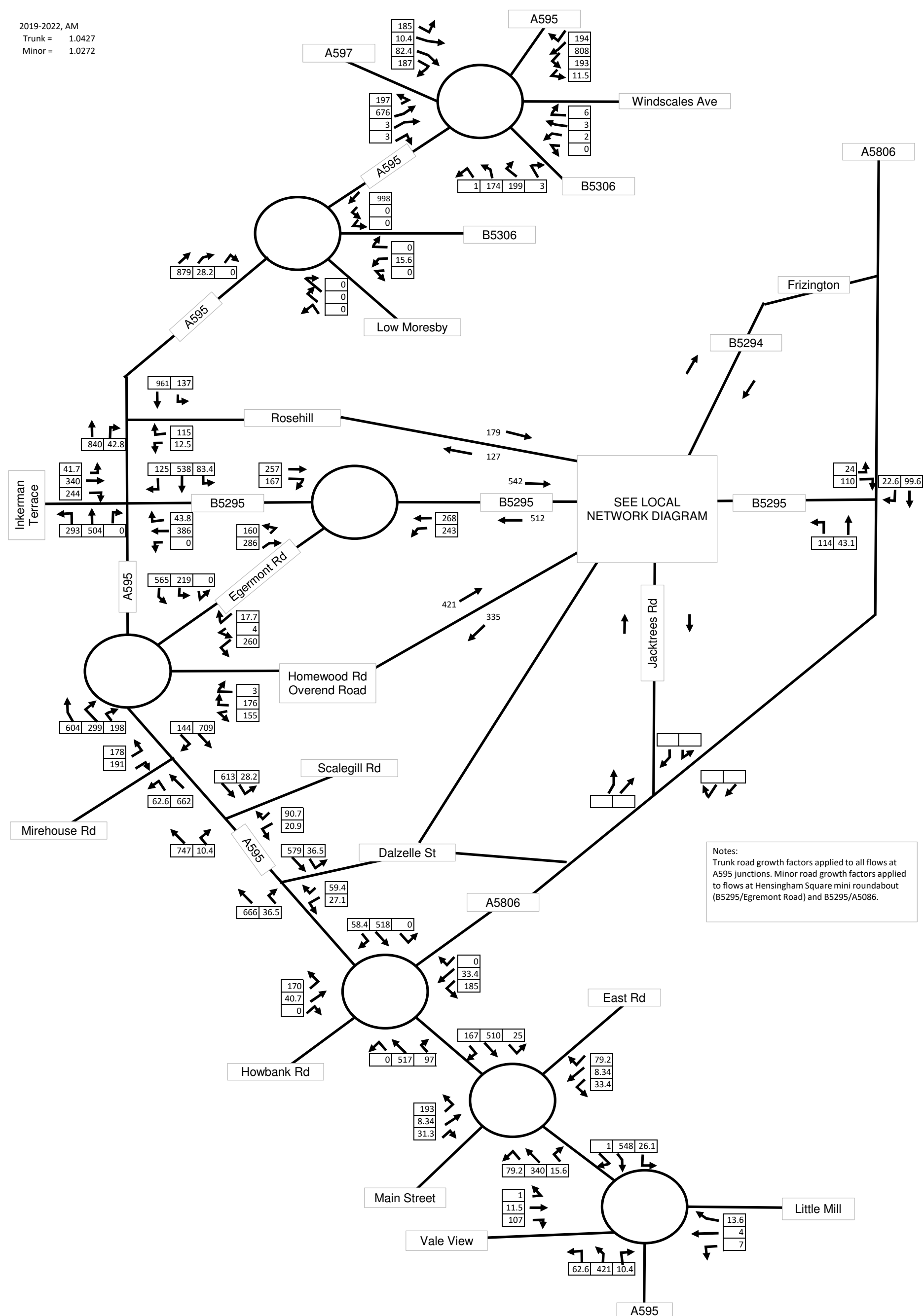
Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure
19



2019-2022, AM

Trunk =	1.0427
Minor =	1.0272



2022 Base Flows AM

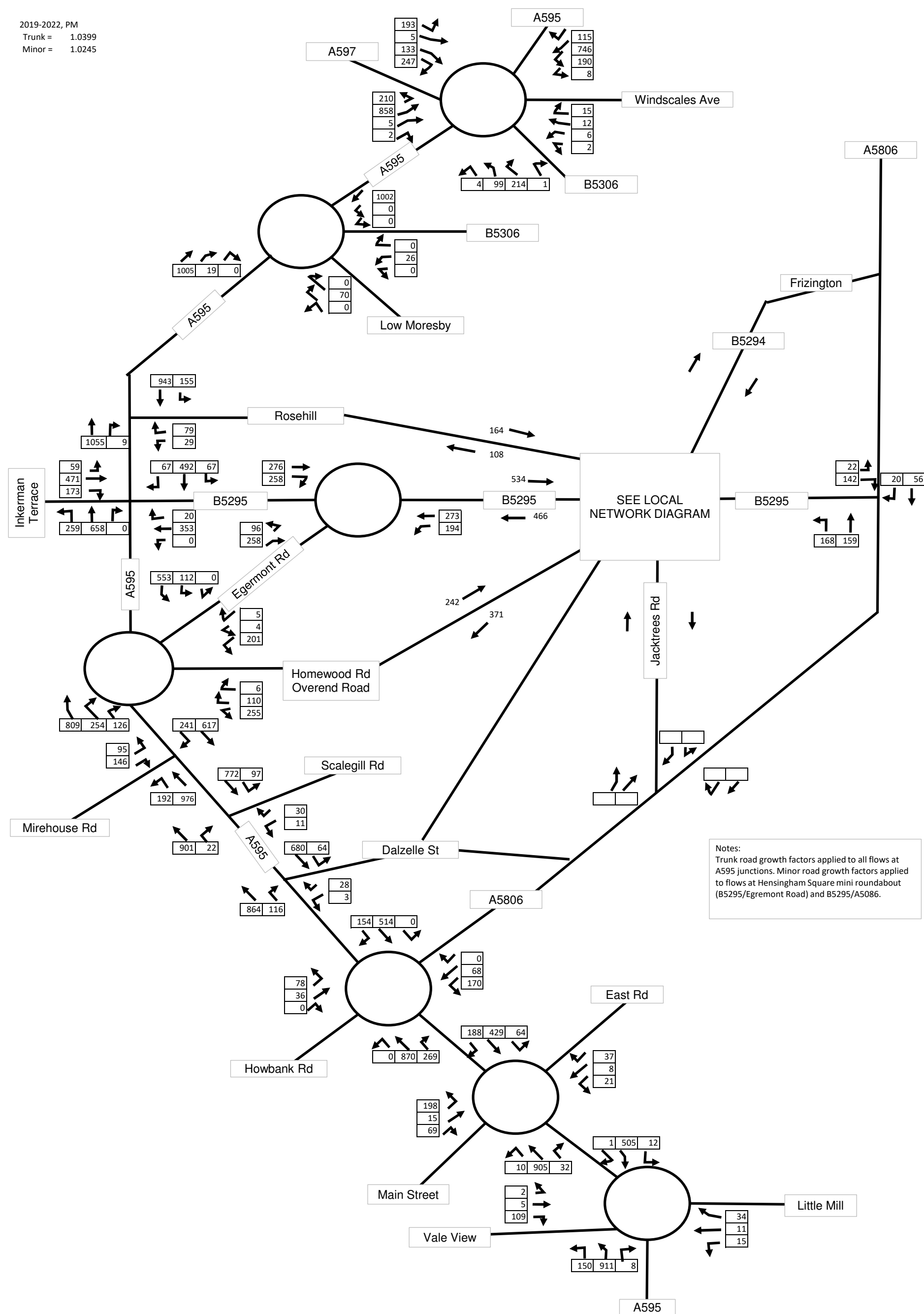
CMIQ, Leconfield Industrial Estate
Project Number: 784-B030277

Figure 20

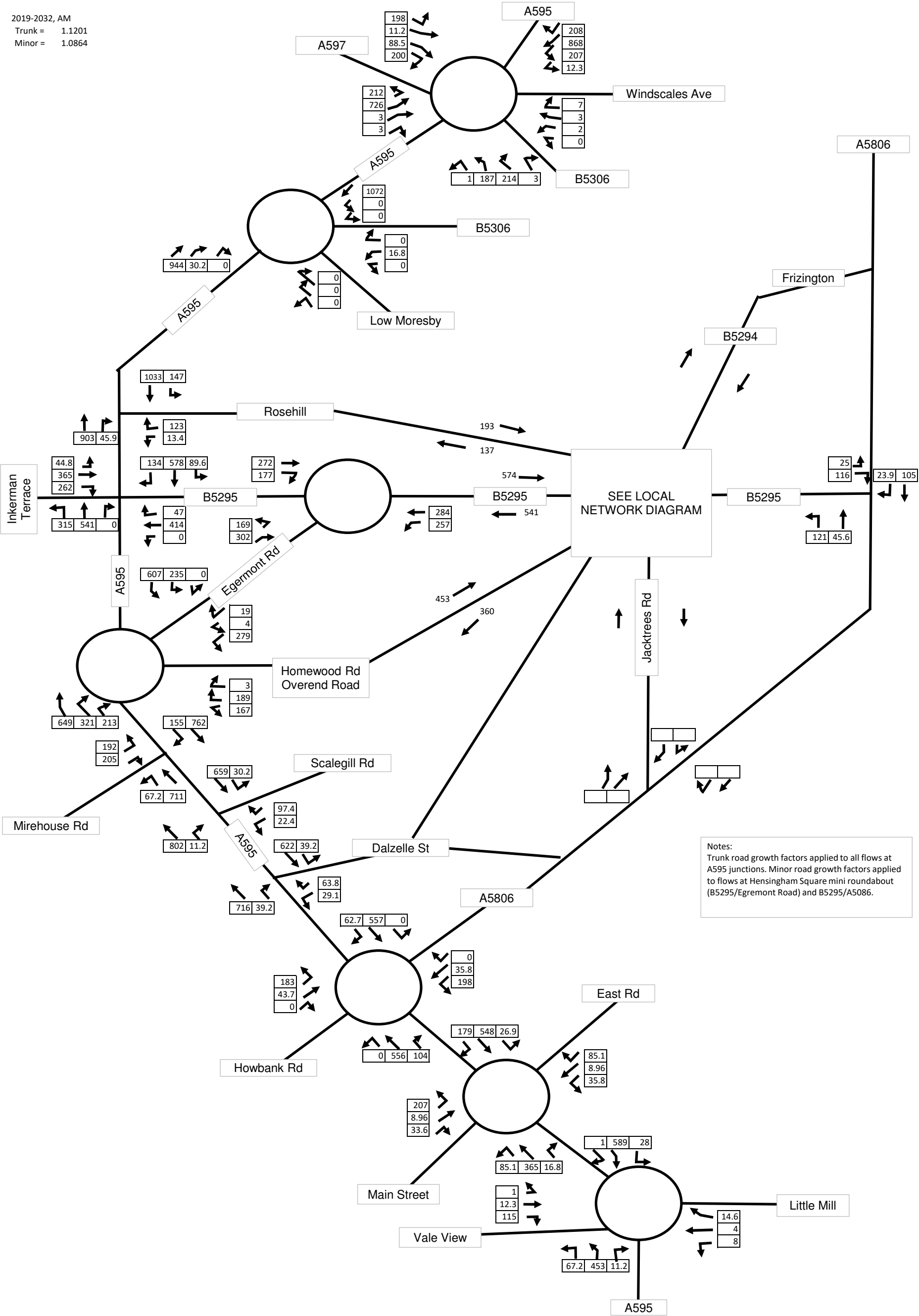


2019-2022, PM

Trunk =	1.0399
Minor =	1.0245



2019-2032, AM
Trunk = 1.1201
Minor = 1.0864



Notes:
Trunk road growth factors applied to all flows at A595 junctions. Minor road growth factors applied to flows at Hensingham Square mini roundabout (B5295/Egremont Road) and B5295/A5086.

2019-2032, PM
Trunk = 1.1128
Minor = 1.0793

Diagram illustrating the traffic flow network for the A595 corridor, showing junctions, roads, and traffic volumes (flows) for the period 2019-2032, PM.

The network includes the following roads and junctions:

- A595** (Main Corridor)
- A597** (Junction 1)
- Windscales Ave** (Junction 2)
- B5306** (Junction 3)
- Low Moorsby** (Junction 4)
- Rosehill** (Junction 5)
- B5295** (Junction 6)
- Egremont Rd** (Junction 7)
- Homewood Rd Overend Road** (Junction 8)
- Scalegill Rd** (Junction 9)
- Dalzelle St** (Junction 10)
- A5806** (Junction 11)
- East Rd** (Junction 12)
- Main Street** (Junction 13)
- Vale View** (Junction 14)
- Little Mill** (Junction 15)
- A595** (Junction 16)
- Howbank Rd** (Junction 17)
- Mirehouse Rd** (Junction 18)
- Inkerman Terrace** (Junction 19)
- Jacktrees Rd** (Junction 20)
- Frizington** (Junction 21)
- A5806** (Junction 22)

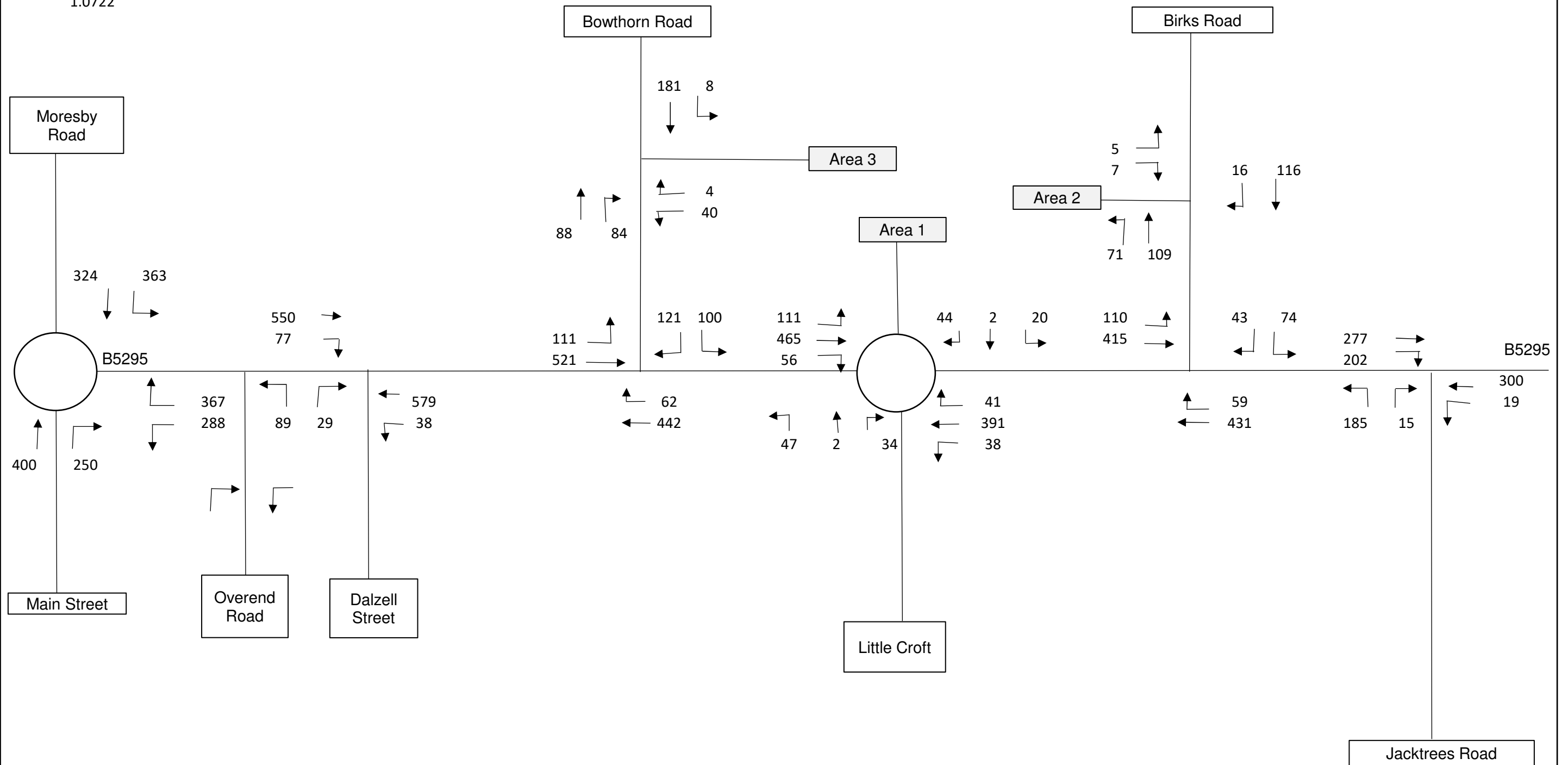
Key features and flow data:

- SEE LOCAL NETWORK DIAGRAM** (Central Junction)
- Notes:**
 - Trunk road growth factors applied to all flows at A595 junctions.
 - Minor road growth factors applied to flows at Hensingham Square mini roundabout (B5295/Egremont Road) and B5295/A5086.

Flow data (flows) are provided for various junctions and roads, including:

- Junction 1 (A597):** 207, 6, 142, 265
- Junction 2 (Windscales Ave):** 124, 798, 204, 9
- Junction 3 (B5306):** 16, 13, 7, 2
- Junction 4 (Low Moorsby):** 4, 106, 229, 1
- Junction 5 (Rosehill):** 1073, 0, 0
- Junction 6 (B5295):** 0, 28, 0
- Junction 7 (Egremont Rd):** 1075, 20, 0
- Junction 8 (Homewood Rd Overend Road):** 0, 75, 0
- Junction 9 (Scalegill Rd):** 1009, 166
- Junction 10 (Dalzelle St):** 85, 31
- Junction 11 (A5806):** 23, 150
- Junction 12 (East Rd):** 22, 59
- Junction 13 (Main Street):** 21, 377, 0
- Junction 14 (Vale View):** 592, 120, 0
- Junction 15 (Little Mill):** 37, 12, 16
- Junction 16 (A595):** 6, 4, 215
- Junction 17 (Howbank Rd):** 7, 118, 273
- Junction 18 (Mirehouse Rd):** 866, 272, 135
- Junction 19 (Inkerman Terrace):** 63, 504, 185
- Junction 20 (Jacktrees Rd):** 259, 397
- Junction 21 (Frizington):** 176, 116
- Junction 22 (A5806):** 165, 550, 0

2020-2032
1.0722



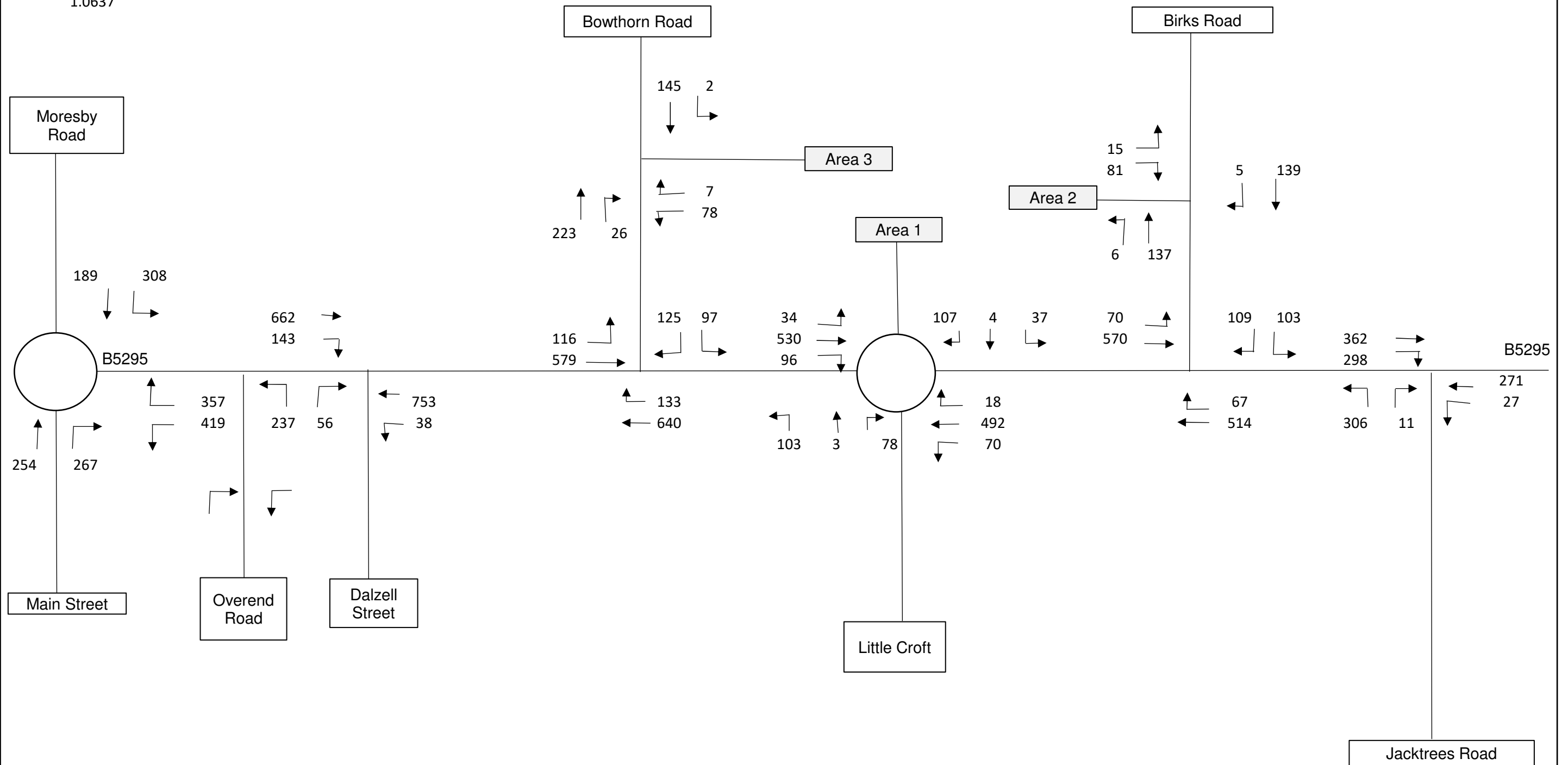
2032 With Development - AM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure
24



2020-2032
1.0637



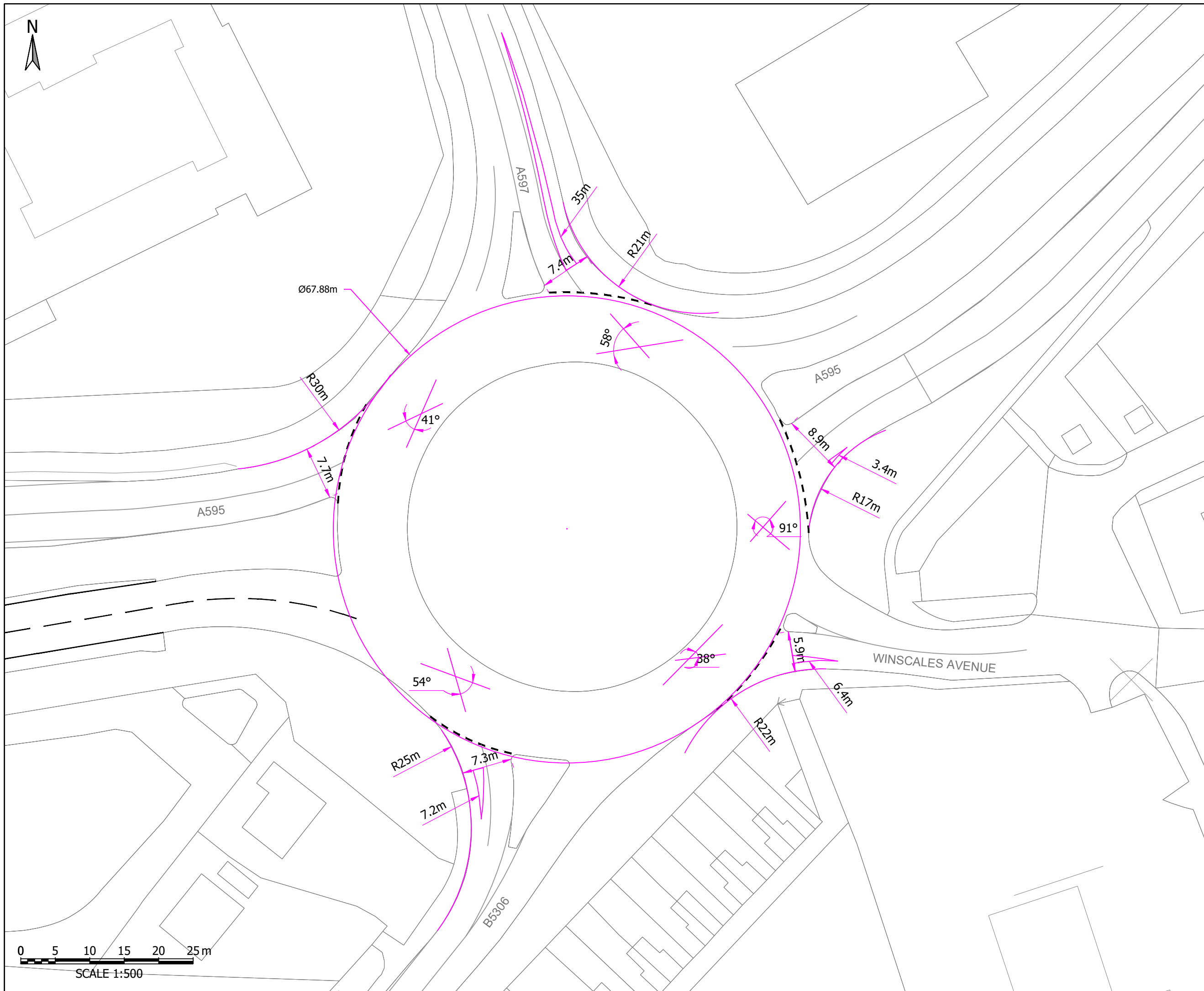
2032 With Development - PM Peak

Cleator Moor Innovation Quarter, Leconfield Industrial Estate

Figure
25



APPENDIX F – MODEL GEOMETRIES A595



PRELIMINARY ISSUE

P01	PRELIMINARY FIRST ISSUE				25.02.2022	NJ	EB	G	
Rev	Description				Date	Om / Chk / App			

Tetra Tech Newcastle
4th Floor, Rotterdam House,
116 Quayside, Newcastle upon Tyne,
United Kingdom, NE1 3DY
Tel: +44 (0)19 1249 9810
www.tetratech-europe.com

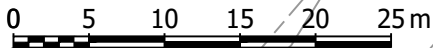
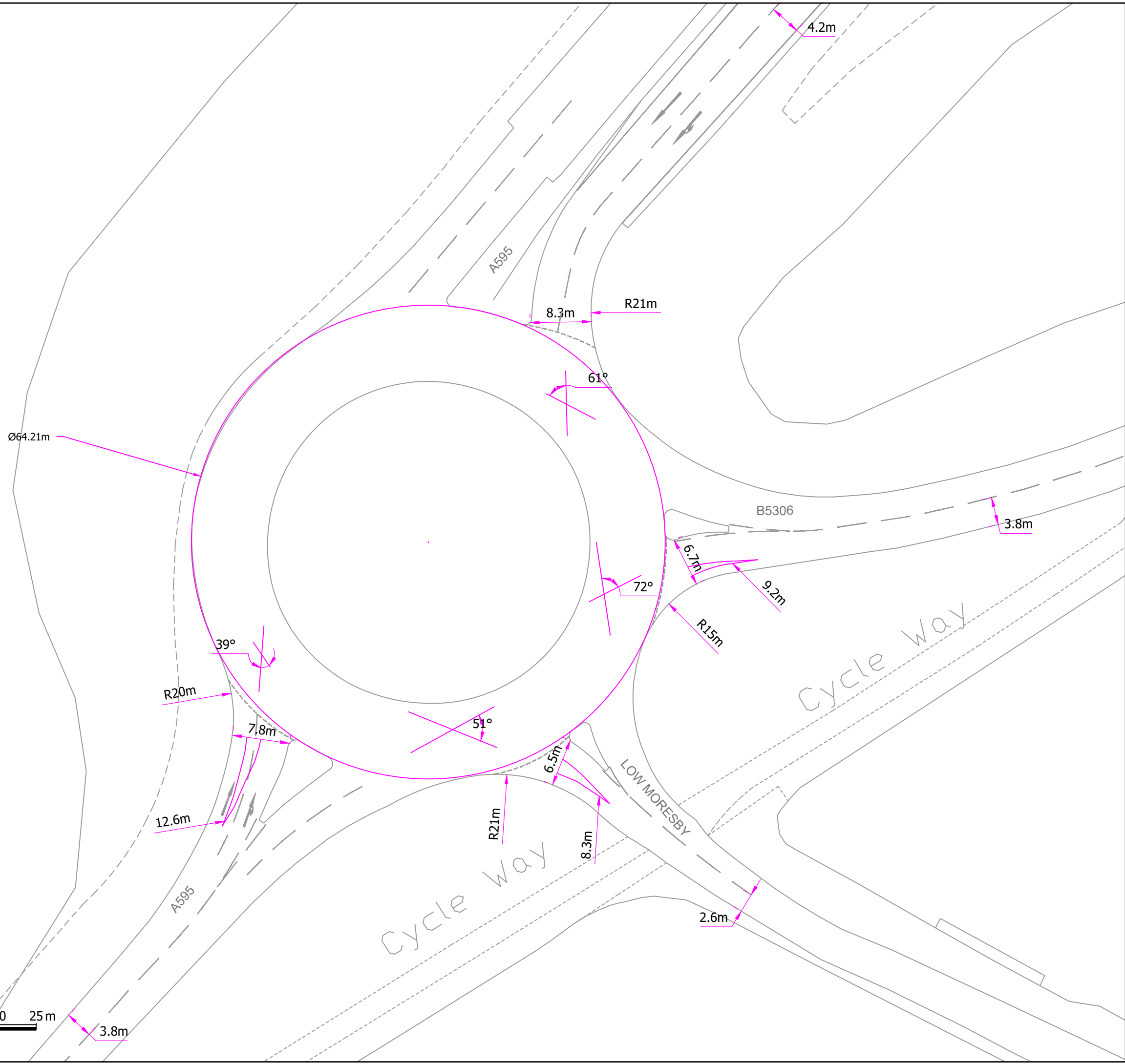
COPELAND BOROUGH COUNCIL

Project Name
LECONFIELD INDUSTRIAL ESTATE

Sheet Title

GEOMETRY MEASUREMENTS FOR
JUNCTIONS MODELLING
A595/A597/WINDSCALES AVE/B5306

TTE Project Number 784-B030277	Drawn By NJ	Date Feb '22	Checked By EB	Date Feb '22	Approved By GW	Date Feb '22	Scale @ A3 As Shown	Suitability S0
Client Project Number PRJ01	Originator - TTE	Volume/System - 00	Level/Location - ZZ	Type/Code - DR	Role - O	Number - 00020	Revision P01	



SCALE 1:500

PRELIMINARY ISSUE

P01	PRELIMINARY FIRST ISSUE	25.02.2022	NJ	EB	GW				
Rev	Description	Date	Drn	CHK	App				
Document Control									

Issuing Office:
Tetra Tech Newcastle
4th Floor, Rotterdam House,
116 Quayside, Newcastle upon Tyne,
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Tel: +44 (0)19 1249 9810
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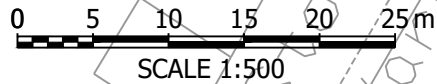


Client:
COPELAND BOROUGH COUNCIL

Project Name:
LECONFIELD INDUSTRIAL ESTATE

Sheet Title:
GEOMETRY MEASUREMENTS FOR
JUNCTIONS MODELLING
HOWGATE - A595/B5306/LOW MORESBY

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Suitability
784-B030277	NJ	Feb '22	EB	Feb '22	GW	Feb '22	As Shown	S0
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
PRJ01	- TTE	- 00	- ZZ	- DR	- O	- 00021	P01	



ROSEHILL

Fir tk

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Suitability
784-B030277	NJ	Feb '22	EB	Feb '22	GW	Feb '22	As Shown	S0
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
PRJ01	- TTE	- 00	- ZZ	- DR	- O	- 00022	P01	





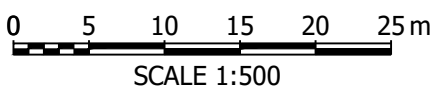
HENSINGHAM SQ - MINI ROUNDABOUT
Scale @ A3 1:500

Tetra Tech Newcastle
4th Floor, Rotterdam House,
116 Quayside, Newcastle upon Tyne,
United Kingdom, NE1 3DY
Tel: +44 (0)191 249 9810
www.tetratech.europa.com

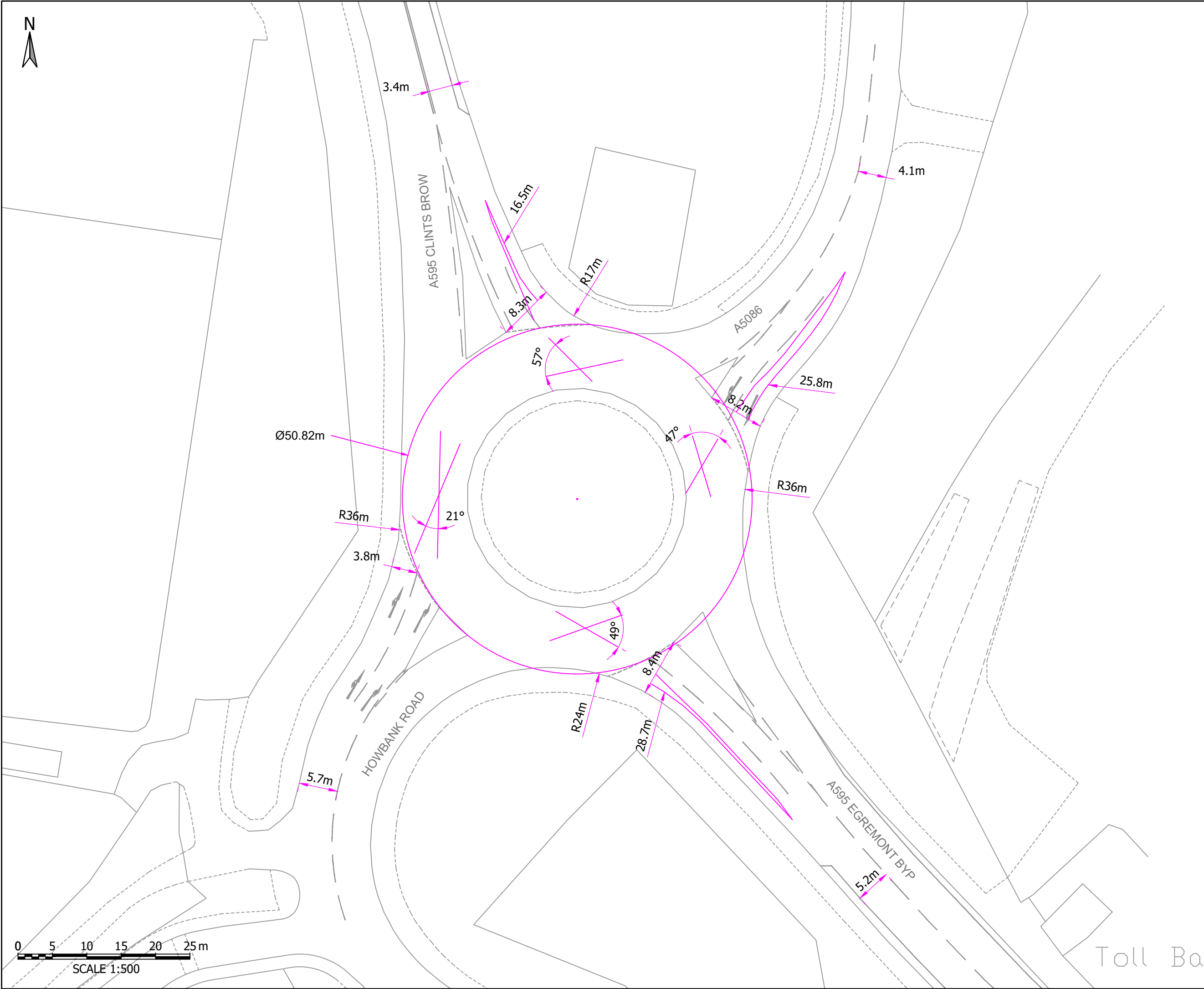
 **TETRA TECH**

0510152025m

SCALE 1:500



TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Suitability
784-B030277	NJ	Feb '22	EB	Feb '22	GW	Feb '22	As Shown	S0
Client Project Number	Originator	Volume/System	Level/Location	Type/Code	Role	Number	Revision	
PRJ01	- TTE	- 00	- ZZ	- DR	- O	- 00024	P01	



Project Name

LECONFIELD INDUSTRIAL ESTATE

APPENDIX G – MODEL OUTPUT FILES

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.1.7462 © Copyright TRL Limited, 2019			
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk			
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution			

Filename: A114312 - Site Access_Leconfield Street mini roundabout.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 1 - B5295 Leconfield Street Area 1 Access mini rbt

Report generation date: 01/03/2022 09:51:49

- »2020 Existing, AM
- »2020 Existing, PM
- »2032 No Development, AM
- »2032 No Development, PM
- »2032 With Development, AM
- »2032 With Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2020 Existing							
1 - Site Access	D1	0.1	5.19	0.05	D2	0.1	6.17	0.09
2 - Leconfield Street East		0.5	3.78	0.32		0.7	4.56	0.42
3 - Little Croft		0.1	6.02	0.12		0.4	7.46	0.28
4 - Leconfield Street West		1.6	11.14	0.61		3.4	19.95	0.78
	2032 No Development							
1 - Site Access	D3	0.1	5.40	0.05	D4	0.1	6.56	0.10
2 - Leconfield Street East		0.5	3.93	0.34		0.8	4.82	0.45
3 - Little Croft		0.2	6.26	0.13		0.4	8.03	0.31
4 - Leconfield Street West		1.9	12.62	0.65		4.7	26.13	0.83
	2032 With Development							
1 - Site Access	D5	0.1	6.03	0.10	D6	0.4	8.31	0.27
2 - Leconfield Street East		0.6	4.13	0.37		0.9	5.32	0.48
3 - Little Croft		0.2	6.59	0.13		0.5	9.16	0.34
4 - Leconfield Street West		4.8	26.33	0.84		6.9	36.28	0.89

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

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

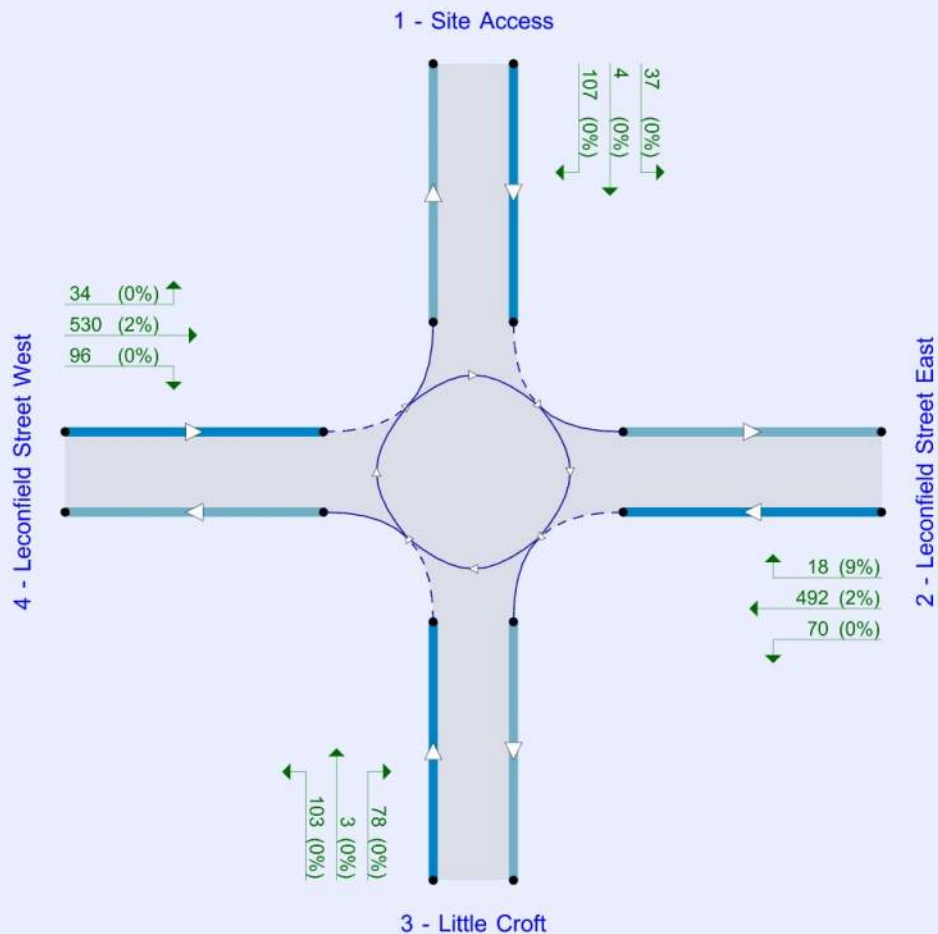
File summary

File Description

Title	Leconfield Street - Site Access - Little Croft
Location	B5295 Leconfield Street, Cleator Moor
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	WYG\eleonor.bunn
Description	

Units

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



Flows show original traffic demand (PCU/hr).

The junction diagram reflects the last run of Junctions.

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Existing	AM	ONE HOUR	08:00	09:30	15
D2	2020 Existing	PM	ONE HOUR	17:00	18:30	15
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 Existing, 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 4 have 88% 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	7.45	A

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Site Access	
2	Leconfield Street East	
3	Little Croft	
4	Leconfield Street West	

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 - Site Access	4.20	4.20	6.20	0.1	7.70	3.00	-4.4	
2 - Leconfield Street East	4.00	4.00	8.70	12.4	9.00	3.00	-4.4	
3 - Little Croft	3.30	3.30	5.40	1.5	9.10	5.50	0.0	
4 - Leconfield Street West	3.20	3.20	4.30	0.1	8.70	4.00	4.8	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Site Access	0.690	1129
2 - Leconfield Street East	0.762	1502
3 - Little Croft	0.616	1014
4 - Leconfield Street West	0.541	878

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Existing	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	34	100.000
2 - Leconfield Street East		✓	418	100.000
3 - Little Croft		✓	78	100.000
4 - Leconfield Street West		✓	467	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
	1 - Site Access	0	13	2	19
	2 - Leconfield Street East	20	0	35	363
	3 - Little Croft	2	32	0	44
	4 - Leconfield Street West	33	382	52	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
	1 - Site Access	0	8	0	6
	2 - Leconfield Street East	5	0	3	3
	3 - Little Croft	0	10	0	10
	4 - Leconfield Street West	3	2	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.05	5.19	0.1	A
2 - Leconfield Street East	0.32	3.78	0.5	A
3 - Little Croft	0.12	6.02	0.1	A
4 - Leconfield Street West	0.61	11.14	1.6	B

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	26	348	889	0.029	25	0.0	4.437	A
2 - Leconfield Street East	315	55	1460	0.215	314	0.3	3.233	A
3 - Little Croft	59	302	828	0.071	58	0.1	5.128	A
4 - Leconfield Street West	352	40	856	0.411	349	0.7	7.254	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	31	418	840	0.036	31	0.0	4.728	A
2 - Leconfield Street East	376	65	1452	0.259	375	0.4	3.447	A
3 - Little Croft	70	361	792	0.089	70	0.1	5.474	A
4 - Leconfield Street West	420	48	852	0.493	419	1.0	8.516	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	37	511	776	0.048	37	0.1	5.182	A
2 - Leconfield Street East	460	80	1441	0.319	460	0.5	3.780	A
3 - Little Croft	86	442	742	0.116	86	0.1	6.020	A
4 - Leconfield Street West	514	59	846	0.608	512	1.5	10.994	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	37	513	775	0.048	37	0.1	5.192	A
2 - Leconfield Street East	460	80	1441	0.319	460	0.5	3.783	A
3 - Little Croft	86	443	741	0.116	86	0.1	6.025	A
4 - Leconfield Street West	514	59	846	0.608	514	1.6	11.137	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	31	421	838	0.036	31	0.0	4.743	A
2 - Leconfield Street East	376	66	1452	0.259	376	0.4	3.451	A
3 - Little Croft	70	362	791	0.089	70	0.1	5.479	A
4 - Leconfield Street West	420	49	852	0.493	422	1.0	8.651	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	26	352	886	0.029	26	0.0	4.453	A
2 - Leconfield Street East	315	55	1460	0.216	315	0.3	3.243	A
3 - Little Croft	59	303	827	0.071	59	0.1	5.141	A
4 - Leconfield Street West	352	41	856	0.411	353	0.7	7.364	A

2020 Existing, 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 4 have 83% 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	11.67	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 Existing	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	51	100.000
2 - Leconfield Street East		✓	539	100.000
3 - Little Croft		✓	173	100.000
4 - Leconfield Street West		✓	585	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	17	4	30
	2 - Leconfield Street East	12	0	66	461
	3 - Little Croft	3	73	0	97
	4 - Leconfield Street West	13	482	90	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	0	0	0
	2 - Leconfield Street East	9	0	0	2
	3 - Little Croft	0	0	0	0
	4 - Leconfield Street West	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.09	6.17	0.1	A
2 - Leconfield Street East	0.42	4.56	0.7	A
3 - Little Croft	0.28	7.46	0.4	A
4 - Leconfield Street West	0.78	19.95	3.4	C

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	38	481	797	0.048	38	0.1	4.743	A
2 - Leconfield Street East	406	93	1432	0.283	404	0.4	3.566	A
3 - Little Croft	130	377	782	0.167	129	0.2	5.512	A
4 - Leconfield Street West	440	66	842	0.523	436	1.1	8.915	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	46	577	730	0.063	46	0.1	5.258	A
2 - Leconfield Street East	485	111	1417	0.342	484	0.5	3.928	A
3 - Little Croft	156	452	736	0.211	155	0.3	6.198	A
4 - Leconfield Street West	526	79	835	0.630	524	1.7	11.650	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	56	704	643	0.087	56	0.1	6.129	A
2 - Leconfield Street East	593	135	1399	0.424	593	0.7	4.545	A
3 - Little Croft	190	553	673	0.283	190	0.4	7.439	A
4 - Leconfield Street West	644	97	826	0.780	638	3.3	18.811	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	56	710	639	0.088	56	0.1	6.173	A
2 - Leconfield Street East	593	136	1398	0.424	593	0.7	4.558	A
3 - Little Croft	190	554	673	0.283	190	0.4	7.462	A
4 - Leconfield Street West	644	97	826	0.780	644	3.4	19.945	C

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	46	587	724	0.063	46	0.1	5.310	A
2 - Leconfield Street East	485	113	1416	0.342	485	0.5	3.944	A
3 - Little Croft	156	453	735	0.212	156	0.3	6.222	A
4 - Leconfield Street West	526	79	835	0.630	533	1.8	12.348	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	38	488	792	0.048	38	0.1	4.778	A
2 - Leconfield Street East	406	94	1431	0.284	406	0.4	3.582	A
3 - Little Croft	130	379	780	0.167	131	0.2	5.543	A
4 - Leconfield Street West	440	66	842	0.523	443	1.1	9.228	A

2032 No Development, 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 4 have 88% 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	8.24	A

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	36	100.000
2 - Leconfield Street East		✓	448	100.000
3 - Little Croft		✓	83	100.000
4 - Leconfield Street West		✓	501	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	14	2	20
	2 - Leconfield Street East	21	0	38	389
	3 - Little Croft	2	34	0	47
	4 - Leconfield Street West	35	410	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
	1 - Site Access	0	8	0	6
	2 - Leconfield Street East	5	0	3	3
	3 - Little Croft	0	10	0	10
	4 - Leconfield Street West	3	2	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.05	5.40	0.1	A
2 - Leconfield Street East	0.34	3.93	0.5	A
3 - Little Croft	0.13	6.26	0.2	A
4 - Leconfield Street West	0.65	12.62	1.9	B

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	27	373	871	0.031	27	0.0	4.538	A
2 - Leconfield Street East	337	58	1458	0.231	336	0.3	3.306	A
3 - Little Croft	62	323	815	0.077	62	0.1	5.242	A
4 - Leconfield Street West	377	43	855	0.441	374	0.8	7.640	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	32	448	820	0.039	32	0.0	4.866	A
2 - Leconfield Street East	403	70	1449	0.278	402	0.4	3.547	A
3 - Little Croft	75	386	776	0.096	75	0.1	5.630	A
4 - Leconfield Street West	450	51	850	0.530	449	1.1	9.184	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	40	548	751	0.053	40	0.1	5.385	A
2 - Leconfield Street East	493	86	1437	0.343	493	0.5	3.928	A
3 - Little Croft	91	473	723	0.126	91	0.2	6.254	A
4 - Leconfield Street West	552	63	844	0.654	549	1.9	12.390	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	40	550	749	0.053	40	0.1	5.399	A
2 - Leconfield Street East	493	86	1437	0.343	493	0.5	3.933	A
3 - Little Croft	91	473	722	0.127	91	0.2	6.260	A
4 - Leconfield Street West	552	63	844	0.654	551	1.9	12.622	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	32	452	817	0.040	32	0.0	4.884	A
2 - Leconfield Street East	403	70	1448	0.278	403	0.4	3.555	A
3 - Little Croft	75	387	776	0.096	75	0.1	5.637	A
4 - Leconfield Street West	450	51	850	0.530	453	1.2	9.383	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	27	378	868	0.031	27	0.0	4.557	A
2 - Leconfield Street East	337	59	1457	0.231	338	0.3	3.317	A
3 - Little Croft	62	324	814	0.077	63	0.1	5.254	A
4 - Leconfield Street West	377	43	855	0.441	379	0.8	7.789	A

2032 No Development, 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 4 have 83% 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	14.55	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	54	100.000
2 - Leconfield Street East		✓	573	100.000
3 - Little Croft		✓	184	100.000
4 - Leconfield Street West		✓	623	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	18	4	32
	2 - Leconfield Street East	13	0	70	490
	3 - Little Croft	3	78	0	103
	4 - Leconfield Street West	14	513	96	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	0	0	0
	2 - Leconfield Street East	9	0	0	2
	3 - Little Croft	0	0	0	0
	4 - Leconfield Street West	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.10	6.56	0.1	A
2 - Leconfield Street East	0.45	4.82	0.8	A
3 - Little Croft	0.31	8.03	0.4	A
4 - Leconfield Street West	0.83	26.13	4.7	D

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	41	512	776	0.052	40	0.1	4.896	A
2 - Leconfield Street East	431	98	1427	0.302	430	0.4	3.671	A
3 - Little Croft	139	401	767	0.181	138	0.2	5.712	A
4 - Leconfield Street West	469	70	840	0.558	464	1.3	9.613	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	49	615	705	0.069	48	0.1	5.484	A
2 - Leconfield Street East	515	118	1412	0.365	515	0.6	4.084	A
3 - Little Croft	165	480	718	0.230	165	0.3	6.508	A
4 - Leconfield Street West	560	84	832	0.673	557	2.0	13.144	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	59	747	614	0.097	59	0.1	6.491	A
2 - Leconfield Street East	631	144	1393	0.453	630	0.8	4.804	A
3 - Little Croft	203	588	652	0.311	202	0.4	7.994	A
4 - Leconfield Street West	686	103	822	0.834	676	4.4	23.591	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	59	755	608	0.098	59	0.1	6.564	A
2 - Leconfield Street East	631	145	1391	0.453	631	0.8	4.822	A
3 - Little Croft	203	589	651	0.311	203	0.4	8.025	A
4 - Leconfield Street West	686	103	822	0.835	685	4.7	26.126	D

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	49	628	696	0.070	49	0.1	5.564	A
2 - Leconfield Street East	515	120	1410	0.365	516	0.6	4.108	A
3 - Little Croft	165	482	717	0.231	166	0.3	6.538	A
4 - Leconfield Street West	560	85	832	0.673	570	2.2	14.477	B

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	41	521	770	0.053	41	0.1	4.939	A
2 - Leconfield Street East	431	100	1426	0.303	432	0.4	3.692	A
3 - Little Croft	139	403	766	0.181	139	0.2	5.746	A
4 - Leconfield Street West	469	71	840	0.559	472	1.3	10.061	B

2032 With Development, 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 4 have 88% 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	15.61	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	66	100.000
2 - Leconfield Street East		✓	470	100.000
3 - Little Croft		✓	83	100.000
4 - Leconfield Street West		✓	632	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	20	2	44
	2 - Leconfield Street East	41	0	38	391
	3 - Little Croft	2	34	0	47
	4 - Leconfield Street West	111	465	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	8	0	6
	2 - Leconfield Street East	5	0	3	3
	3 - Little Croft	0	10	0	10
	4 - Leconfield Street West	3	2	8	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.10	6.03	0.1	A
2 - Leconfield Street East	0.37	4.13	0.6	A
3 - Little Croft	0.13	6.59	0.2	A
4 - Leconfield Street West	0.84	26.33	4.8	D

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	50	413	843	0.059	49	0.1	4.823	A
2 - Leconfield Street East	354	76	1444	0.245	353	0.3	3.398	A
3 - Little Croft	62	357	794	0.079	62	0.1	5.394	A
4 - Leconfield Street West	476	58	847	0.562	471	1.3	9.703	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	59	496	786	0.075	59	0.1	5.268	A
2 - Leconfield Street East	423	91	1432	0.295	422	0.4	3.676	A
3 - Little Croft	75	428	751	0.099	75	0.1	5.842	A
4 - Leconfield Street West	568	69	841	0.676	565	2.1	13.264	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	73	603	713	0.102	73	0.1	5.979	A
2 - Leconfield Street East	517	111	1417	0.365	517	0.6	4.122	A
3 - Little Croft	91	523	692	0.132	91	0.2	6.578	A
4 - Leconfield Street West	696	85	832	0.836	686	4.5	23.755	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	73	610	708	0.103	73	0.1	6.029	A
2 - Leconfield Street East	517	112	1417	0.365	517	0.6	4.130	A
3 - Little Croft	91	524	691	0.132	91	0.2	6.585	A
4 - Leconfield Street West	696	85	832	0.836	695	4.8	26.329	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	59	508	779	0.076	59	0.1	5.329	A
2 - Leconfield Street East	423	93	1431	0.295	423	0.4	3.688	A
3 - Little Croft	75	429	750	0.099	75	0.1	5.851	A
4 - Leconfield Street West	568	69	840	0.676	579	2.2	14.628	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	50	421	838	0.059	50	0.1	4.859	A
2 - Leconfield Street East	354	77	1443	0.245	354	0.3	3.411	A
3 - Little Croft	62	359	793	0.079	63	0.1	5.408	A
4 - Leconfield Street West	476	58	847	0.562	479	1.3	10.163	B

2032 With Development, 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 4 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	Site Access/Leconfield Street	Mini-roundabout		1, 2, 3, 4	19.05	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Site Access		✓	148	100.000
2 - Leconfield Street East		✓	580	100.000
3 - Little Croft		✓	184	100.000
4 - Leconfield Street West		✓	660	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
From	1 - Site Access	0	37	4	107
	2 - Leconfield Street East	18	0	70	492
	3 - Little Croft	3	78	0	103
	4 - Leconfield Street West	34	530	96	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Site Access	2 - Leconfield Street East	3 - Little Croft	4 - Leconfield Street West
	1 - Site Access	0	0	0	0
	2 - Leconfield Street East	9	0	0	2
	3 - Little Croft	0	0	0	0
	4 - Leconfield Street West	0	2	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Site Access	0.27	8.31	0.4	A
2 - Leconfield Street East	0.48	5.32	0.9	A
3 - Little Croft	0.34	9.16	0.5	A
4 - Leconfield Street West	0.89	36.28	6.9	E

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	111	524	767	0.145	111	0.2	5.478	A
2 - Leconfield Street East	437	154	1384	0.315	435	0.5	3.859	A
3 - Little Croft	139	462	729	0.190	138	0.2	6.085	A
4 - Leconfield Street West	497	74	838	0.593	491	1.4	10.385	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	133	629	695	0.191	133	0.2	6.402	A
2 - Leconfield Street East	521	185	1361	0.383	521	0.6	4.369	A
3 - Little Croft	165	554	673	0.246	165	0.3	7.086	A
4 - Leconfield Street West	593	89	830	0.715	589	2.4	14.958	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	163	761	604	0.270	162	0.4	8.140	A
2 - Leconfield Street East	639	225	1330	0.480	637	0.9	5.286	A
3 - Little Croft	203	678	596	0.340	202	0.5	9.107	A
4 - Leconfield Street West	727	109	819	0.887	712	6.2	30.386	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	163	773	596	0.273	163	0.4	8.313	A
2 - Leconfield Street East	639	227	1329	0.481	639	0.9	5.317	A
3 - Little Croft	203	679	596	0.340	203	0.5	9.161	A
4 - Leconfield Street West	727	109	819	0.887	724	6.9	36.284	E

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	133	649	681	0.195	134	0.2	6.580	A
2 - Leconfield Street East	521	189	1358	0.384	523	0.6	4.400	A
3 - Little Croft	165	556	671	0.246	166	0.3	7.133	A
4 - Leconfield Street West	593	89	830	0.715	610	2.7	17.755	C

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Site Access	111	535	760	0.147	112	0.2	5.555	A
2 - Leconfield Street East	437	157	1383	0.316	437	0.5	3.886	A
3 - Little Croft	139	465	727	0.190	139	0.2	6.120	A
4 - Leconfield Street West	497	75	838	0.593	502	1.5	11.033	B

Junctions 9				
PICADY 9 - Priority Intersection Module				
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Filename: J2 B5294 Bowthorn Road Area 3 Access Junction.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 2 - B5294 Bowthorn Road Area 3 Access junction

Report generation date: 21/02/2022 10:06:17

»2032 With Development, AM

»2032 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2032 With Development										
Stream B-AC	D1	0.1	5.77	0.07	A	D2	0.2	6.07	0.14	A
Stream C-B		0.2	6.38	0.14	A		0.0	5.61	0.04	A

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

File summary

File Description

Title	
Location	
Site number	
Date	12/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	TT\LAUREN.WILKES
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2032 With Development	AM	ONE HOUR	00:00	01:30	15
D2	2032 With Development	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2032 With Development, 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		1.95	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Bowthorn Road		Major
B	Site Access		Minor
C	Bowthorn Road West		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Bowthorn Road West	6.00		✓	3.50	90.0		-

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 - Site Access	One lane	4.32	47	72

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	598	0.109	0.275	0.173	0.393
B-C	758	0.116	0.294	-	-
C-B	715	0.277	0.277	-	-

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)
D1	2032 With Development	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bowthorn Road		✓	189	100.000
B - Site Access		✓	44	100.000
C - Bowthorn Road West		✓	172	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bowthorn Road	B - Site Access	C - Bowthorn Road West
From	A - Bowthorn Road	0	8	181
	B - Site Access	4	0	40
	C - Bowthorn Road West	88	84	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bowthorn Road	B - Site Access	C - Bowthorn Road West
From	A - Bowthorn Road	0	0	4
	B - Site Access	0	0	0
	C - Bowthorn Road West	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.07	5.77	0.1	A
C-A				
C-B	0.14	6.38	0.2	A
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	694	0.048	33	0.0	5.446	A
C-A	66			66			
C-B	63	675	0.094	63	0.1	5.874	A
A-B	6			6			
A-C	136			136			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	685	0.058	40	0.1	5.579	A
C-A	79			79			
C-B	76	668	0.113	75	0.1	6.079	A
A-B	7			7			
A-C	163			163			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	672	0.072	48	0.1	5.772	A
C-A	97			97			
C-B	92	657	0.141	92	0.2	6.373	A
A-B	9			9			
A-C	199			199			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	48	672	0.072	48	0.1	5.772	A
C-A	97			97			
C-B	92	657	0.141	92	0.2	6.375	A
A-B	9			9			
A-C	199			199			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	685	0.058	40	0.1	5.581	A
C-A	79			79			
C-B	76	668	0.113	76	0.1	6.082	A
A-B	7			7			
A-C	163			163			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	694	0.048	33	0.1	5.449	A
C-A	66			66			
C-B	63	675	0.094	63	0.1	5.883	A
A-B	6			6			
A-C	136			136			

2032 With Development, 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		1.38	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2032 With Development	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Bowthorn Road		✓	147	100.000
B - Site Access		✓	85	100.000
C - Bowthorn Road West		✓	249	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Bowthorn Road	B - Site Access	C - Bowthorn Road West
From	A - Bowthorn Road	0	2	145
	B - Site Access	7	0	78
	C - Bowthorn Road West	223	26	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Bowthorn Road	B - Site Access	C - Bowthorn Road West
From	A - Bowthorn Road	0	0	1
	B - Site Access	0	0	0
	C - Bowthorn Road West	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.14	6.07	0.2	A
C-A				
C-B	0.04	5.61	0.0	A
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	704	0.091	64	0.1	5.615	A
C-A	168			168			
C-B	20	684	0.029	19	0.0	5.417	A
A-B	2			2			
A-C	109			109			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	697	0.110	76	0.1	5.800	A
C-A	200			200			
C-B	23	678	0.034	23	0.0	5.498	A
A-B	2			2			
A-C	130			130			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	687	0.136	93	0.2	6.065	A
C-A	246			246			
C-B	29	670	0.043	29	0.0	5.613	A
A-B	2			2			
A-C	160			160			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	94	687	0.136	94	0.2	6.068	A
C-A	246			246			
C-B	29	670	0.043	29	0.0	5.613	A
A-B	2			2			
A-C	160			160			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	76	697	0.110	77	0.1	5.805	A
C-A	200			200			
C-B	23	678	0.034	23	0.0	5.500	A
A-B	2			2			
A-C	130			130			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	64	704	0.091	64	0.1	5.623	A
C-A	168			168			
C-B	20	684	0.029	20	0.0	5.420	A
A-B	2			2			
A-C	109			109			

Junctions 9				
PICADY 9 - Priority Intersection Module				
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Filename: J3 Birks Road_ Area 2 Access Junction.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 3 - Birks Road Area 2 Access junction

Report generation date: 21/02/2022 10:13:17

»2032 With Development , AM

»2032 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
2032 With Development										
Stream B-AC	D1	0.0	7.58	0.03	A	D2	0.3	10.42	0.23	B
Stream C-AB		0.0	5.65	0.03	A		0.0	5.44	0.01	A

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

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

File summary

File Description

Title	
Location	
Site number	
Date	12/11/2021
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	TT\LAUREN.WILKES
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2032 With Development	AM	ONE HOUR	00:00	01:30	15
D2	2032 With Development	PM	ONE HOUR	00:00	01:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2032 With Development , AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		0.62	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Birks Road S		Major
B	Site Access		Minor
C	Birks Road N		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	5.50			91.0	✓	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	3.00	16	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	491	0.091	0.231	0.145	0.330
B-C	635	0.099	0.251	-	-
C-B	627	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 segment length (min)
D1	2032 With Development	AM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	180	100.000
B		✓	12	100.000
C		✓	132	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A	B	C
	A	0	71	109
	B	7	0	5
	C	116	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A	B	C
	A	0	0	0
	B	0	0	0
	C	0	0	3

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.03	7.58	0.0	A
C-AB	0.03	5.65	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	505	0.018	9	0.0	7.251	A
C-AB	14	652	0.021	14	0.0	5.644	A
C-A	85			85			
A-B	53			53			
A-C	82			82			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	498	0.022	11	0.0	7.385	A
C-AB	17	657	0.026	17	0.0	5.626	A
C-A	102			102			
A-B	64			64			
A-C	98			98			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	488	0.027	13	0.0	7.579	A
C-AB	22	664	0.033	22	0.0	5.603	A
C-A	123			123			
A-B	78			78			
A-C	120			120			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	13	488	0.027	13	0.0	7.579	A
C-AB	22	664	0.033	22	0.0	5.606	A
C-A	123			123			
A-B	78			78			
A-C	120			120			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	11	498	0.022	11	0.0	7.389	A
C-AB	17	657	0.026	17	0.0	5.628	A
C-A	102			102			
A-B	64			64			
A-C	98			98			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	9	505	0.018	9	0.0	7.252	A
C-AB	14	652	0.021	14	0.0	5.647	A
C-A	85			85			
A-B	53			53			
A-C	82			82			

2032 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		2.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2032 With Development	PM	ONE HOUR	00:00	01:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		✓	143	100.000
B		✓	96	100.000
C		✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
	A	B	C	
From	A	0	6	137
	B	81	0	15
	C	139	5	0

Vehicle Mix

Heavy Vehicle Percentages

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.23	10.42	0.3	B
C-AB	0.01	5.44	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	470	0.154	72	0.2	9.027	A
C-AB	4	670	0.007	4	0.0	5.435	A
C-A	104			104			
A-B	5			5			
A-C	103			103			

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	462	0.187	86	0.2	9.575	A
C-AB	6	678	0.008	6	0.0	5.376	A
C-A	124			124			
A-B	5			5			
A-C	123			123			

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	451	0.234	105	0.3	10.400	B
C-AB	7	691	0.010	7	0.0	5.297	A
C-A	151			151			
A-B	7			7			
A-C	151			151			

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	106	451	0.234	106	0.3	10.419	B
C-AB	7	691	0.010	7	0.0	5.300	A
C-A	151			151			
A-B	7			7			
A-C	151			151			

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	462	0.187	87	0.2	9.601	A
C-AB	6	678	0.008	6	0.0	5.381	A
C-A	124			124			
A-B	5			5			
A-C	123			123			

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	72	470	0.154	72	0.2	9.069	A
C-AB	4	670	0.007	4	0.0	5.438	A
C-A	104			104			
A-B	5			5			
A-C	103			103			

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
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Filename: Cleator Moor Rd_Main St_Moresby Rd mini.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 4 - B5295 Main Street Cleator Moor Rd Moresby Rd mini.rbt

Report generation date: 17/02/2022 13:36:47

-
- »AM Validated - 2020 Surveyed, AM
 - »AM Validated - 2032 No Development, AM
 - »AM Validated - 2032 With Development, AM
 - »PM Validated - 2020 Surveyed, PM
 - »PM Validated - 2032 No Development, PM
 - »PM Validated - 2032 With Development, PM

Summary of junction performance

	AM			
	Set ID	Queue (PCU)	Delay (s)	RFC
	AM Validated - 2020 Surveyed			
1 - Cleator Moor Road	A1 D1	6.0	36.28	0.87
2 - Main Street		6.0	40.33	0.87
3 - Moresby Road		2.7	14.97	0.73
	AM Validated - 2032 No Development			
1 - Cleator Moor Road	A1 D3	11.7	65.66	0.95
2 - Main Street		11.3	70.60	0.95
3 - Moresby Road		3.7	19.03	0.79
	AM Validated - 2032 With Development			
1 - Cleator Moor Road	A1 D5	20.8	103.83	1.01
2 - Main Street		46.3	223.85	1.12
3 - Moresby Road		6.3	32.12	0.88

	PM			
	Set ID	Queue (PCU)	Delay (s)	RFC
	PM Validated - 2020 Surveyed			
1 - Cleator Moor Road	A2 D2	2.9	16.16	0.75
2 - Main Street		1.5	10.91	0.61
3 - Moresby Road		1.4	10.38	0.59
	PM Validated - 2032 No Development			
1 - Cleator Moor Road	A2 D4	3.9	20.51	0.80
2 - Main Street		1.9	12.60	0.66
3 - Moresby Road		1.7	11.80	0.64
	PM Validated - 2032 With Development			
1 - Cleator Moor Road	A2 D6	13.9	61.62	0.96
2 - Main Street		2.3	14.60	0.70
3 - Moresby Road		1.9	12.69	0.66

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

File summary

File Description

Title	
Location	
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGleleanor.bunn
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15	✓
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15	✓
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15	✓
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15	✓
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15	✓
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15	✓

AM Validated - 2020 Surveyed, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM Validated	✓	✓	D1,D3,D5	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	29.87	D

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	70
2 - Main Street	Direct	queue obs	-30
3 - Moresby Road	Direct	queue obs	150

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	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	575	100.000
2 - Main Street		ONE HOUR	✓	518	100.000
3 - Moresby Road		ONE HOUR	✓	611	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	242	333
	2 - Main Street	145	0	373
	3 - Moresby Road	309	302	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	2	5
	2 - Main Street	3	0	2
	3 - Moresby Road	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.87	36.28	6.0	E	528	791
2 - Main Street	0.87	40.33	6.0	E	475	713
3 - Moresby Road	0.73	14.97	2.7	B	561	841

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	433	108	225	797	0.543	428	339	0.0	1.2	9.978	A
2 - Main Street	390	97	248	722	0.540	385	406	0.0	1.2	10.806	B
3 - Moresby Road	460	115	108	952	0.483	456	525	0.0	0.9	7.426	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	517	129	271	768	0.673	514	406	1.2	2.0	14.445	B
2 - Main Street	466	116	297	693	0.672	462	487	1.2	2.0	15.746	C
3 - Moresby Road	549	137	129	938	0.586	547	630	0.9	1.4	9.444	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	633	158	330	730	0.867	620	494	2.0	5.4	30.568	D
2 - Main Street	570	143	359	657	0.868	557	591	2.0	5.3	33.142	D
3 - Moresby Road	673	168	156	921	0.730	668	760	1.4	2.6	14.363	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	633	158	332	729	0.869	631	499	5.4	6.0	36.284	E
2 - Main Street	570	143	365	653	0.873	568	598	5.3	6.0	40.331	E
3 - Moresby Road	673	168	159	919	0.732	672	774	2.6	2.7	14.966	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	517	129	274	766	0.675	532	415	6.0	2.3	16.820	C
2 - Main Street	466	116	308	687	0.678	480	498	6.0	2.3	18.975	C
3 - Moresby Road	549	137	134	935	0.588	554	654	2.7	1.5	9.863	A

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	433	108	228	795	0.544	437	344	2.3	1.3	10.511	B
2 - Main Street	390	97	253	719	0.543	394	412	2.3	1.2	11.483	B
3 - Moresby Road	460	115	110	950	0.484	462	537	1.5	1.0	7.627	A

AM Validated - 2032 No Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM Validated	✓	✓	D1,D3,D5	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	50.44	F

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	70
2 - Main Street	Direct	queue obs	-30
3 - Moresby Road	Direct	queue obs	150

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	2032 No Development	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	616	100.000
2 - Main Street		ONE HOUR	✓	555	100.000
3 - Moresby Road		ONE HOUR	✓	655	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	259	357
	2 - Main Street	155	0	400
	3 - Moresby Road	331	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	2	5
	2 - Main Street	3	0	2
	3 - Moresby Road	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.95	65.66	11.7	F	565	848
2 - Main Street	0.95	70.60	11.3	F	509	764
3 - Moresby Road	0.79	19.03	3.7	C	601	902

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	464	116	242	787	0.589	458	362	0.0	1.4	11.157	B
2 - Main Street	418	104	265	711	0.587	412	434	0.0	1.4	12.092	B
3 - Moresby Road	493	123	115	947	0.521	489	563	0.0	1.1	8.014	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	554	138	290	756	0.733	549	434	1.4	2.7	17.611	C
2 - Main Street	499	125	318	681	0.733	494	521	1.4	2.6	19.225	C
3 - Moresby Road	589	147	138	933	0.631	586	674	1.1	1.7	10.632	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	678	170	353	715	0.948	652	525	2.7	9.3	46.146	E
2 - Main Street	611	153	378	646	0.946	587	627	2.6	8.7	48.555	E
3 - Moresby Road	721	180	164	916	0.787	714	800	1.7	3.5	17.734	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	678	170	356	713	0.951	669	532	9.3	11.7	65.663	F
2 - Main Street	611	153	388	641	0.954	601	638	8.7	11.3	70.602	F
3 - Moresby Road	721	180	168	914	0.789	720	820	3.5	3.7	19.034	C

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	554	138	295	753	0.736	588	450	11.7	3.1	26.372	D
2 - Main Street	499	125	341	668	0.747	531	542	11.3	3.3	31.555	D
3 - Moresby Road	589	147	148	926	0.636	596	723	3.7	1.9	11.475	B

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	464	116	245	785	0.591	470	369	3.1	1.5	12.087	B
2 - Main Street	418	104	272	707	0.591	425	443	3.3	1.5	13.354	B
3 - Moresby Road	493	123	119	945	0.522	496	579	1.9	1.1	8.310	A

AM Validated - 2032 With Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM Validated	✓	✓	D1,D3,D5	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	118.26	F

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	70
2 - Main Street	Direct	queue obs	-30
3 - Moresby Road	Direct	queue obs	150

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	2032 With Development	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	655	100.000
2 - Main Street		ONE HOUR	✓	650	100.000
3 - Moresby Road		ONE HOUR	✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	288	367
	2 - Main Street	250	0	400
	3 - Moresby Road	363	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	2	5
	2 - Main Street	3	0	2
	3 - Moresby Road	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	1.01	103.83	20.8	F	601	902
2 - Main Street	1.12	223.85	46.3	F	596	895
3 - Moresby Road	0.88	32.12	6.3	D	630	946

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	493	123	241	787	0.627	486	455	0.0	1.7	12.159	B
2 - Main Street	489	122	273	707	0.692	481	455	0.0	2.2	15.721	C
3 - Moresby Road	517	129	185	903	0.573	512	568	0.0	1.3	9.359	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	589	147	289	756	0.779	582	544	1.7	3.3	20.688	C
2 - Main Street	584	146	326	676	0.864	572	545	2.2	5.2	32.176	D
3 - Moresby Road	618	154	220	880	0.702	614	678	1.3	2.3	13.707	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	721	180	350	717	1.006	678	635	3.3	14.2	62.118	F
2 - Main Street	716	179	380	645	1.109	631	648	5.2	26.4	107.935	F
3 - Moresby Road	756	189	243	866	0.874	743	768	2.3	5.8	27.374	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	721	180	356	714	1.011	695	643	14.2	20.8	103.833	F
2 - Main Street	716	179	389	640	1.119	636	661	26.4	46.3	219.238	F
3 - Moresby Road	756	189	245	864	0.875	754	781	5.8	6.3	32.115	D

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	589	147	298	751	0.784	655	580	20.8	4.4	51.378	F
2 - Main Street	584	146	367	653	0.895	638	586	46.3	32.8	223.849	F
3 - Moresby Road	618	154	246	864	0.715	632	760	6.3	2.7	16.866	C

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	493	123	246	784	0.629	503	510	4.4	1.8	13.733	B
2 - Main Street	489	122	282	702	0.697	610	467	32.8	2.6	70.612	F
3 - Moresby Road	517	129	235	871	0.594	522	657	2.7	1.5	10.757	B

PM Validated - 2020 Surveyed, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM Validated	✓	✓	D2,D4,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	12.82	B

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	150
2 - Main Street	Direct	queue obs	150
3 - Moresby Road	Direct	queue obs	150

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	608	100.000
2 - Main Street		ONE HOUR	✓	471	100.000
3 - Moresby Road		ONE HOUR	✓	461	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	303	305
	2 - Main Street	232	0	239
	3 - Moresby Road	283	178	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	3	2
	2 - Main Street	1	0	0
	3 - Moresby Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.75	16.16	2.9	C	558	837
2 - Main Street	0.61	10.91	1.5	B	432	648
3 - Moresby Road	0.59	10.38	1.4	B	423	635

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	458	114	133	937	0.489	454	385	0.0	1.0	7.578	A
2 - Main Street	355	89	228	913	0.388	352	359	0.0	0.6	6.431	A
3 - Moresby Road	347	87	173	910	0.381	345	406	0.0	0.6	6.406	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	547	137	160	920	0.594	545	462	1.0	1.5	9.776	A
2 - Main Street	423	106	273	887	0.477	422	431	0.6	0.9	7.784	A
3 - Moresby Road	414	104	208	888	0.467	413	487	0.6	0.9	7.647	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	669	167	195	897	0.746	664	564	1.5	2.8	15.472	C
2 - Main Street	519	130	333	852	0.609	516	526	0.9	1.5	10.707	B
3 - Moresby Road	508	127	254	858	0.591	505	595	0.9	1.4	10.234	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	669	167	196	896	0.747	669	567	2.8	2.9	16.157	C
2 - Main Street	519	130	336	851	0.610	518	529	1.5	1.5	10.906	B
3 - Moresby Road	508	127	255	858	0.592	507	599	1.4	1.4	10.377	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	547	137	161	919	0.595	552	466	2.9	1.5	10.197	B
2 - Main Street	423	106	277	885	0.479	426	436	1.5	0.9	7.942	A
3 - Moresby Road	414	104	210	887	0.467	417	493	1.4	0.9	7.769	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	458	114	134	936	0.489	460	389	1.5	1.0	7.783	A
2 - Main Street	355	89	231	912	0.389	356	364	0.9	0.6	6.534	A
3 - Moresby Road	347	87	175	909	0.382	348	411	0.9	0.6	6.497	A

PM Validated - 2032 No Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM Validated	✓	✓	D2,D4,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	15.48	C

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	150
2 - Main Street	Direct	queue obs	150
3 - Moresby Road	Direct	queue obs	150

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	2032 No Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	646	100.000
2 - Main Street		ONE HOUR	✓	501	100.000
3 - Moresby Road		ONE HOUR	✓	490	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	322	324
	2 - Main Street	247	0	254
	3 - Moresby Road	301	189	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	3	2
	2 - Main Street	1	0	0
	3 - Moresby Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.80	20.51	3.9	C	593	889
2 - Main Street	0.66	12.60	1.9	B	460	690
3 - Moresby Road	0.64	11.80	1.7	B	450	674

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	486	122	141	931	0.522	482	409	0.0	1.1	8.125	A
2 - Main Street	377	94	242	905	0.417	374	381	0.0	0.7	6.795	A
3 - Moresby Road	369	92	185	903	0.409	366	432	0.0	0.7	6.742	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	581	145	169	913	0.636	578	491	1.1	1.7	10.916	B
2 - Main Street	450	113	290	877	0.513	449	458	0.7	1.0	8.440	A
3 - Moresby Road	440	110	221	879	0.501	439	518	0.7	1.0	8.238	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	711	178	207	889	0.800	703	600	1.7	3.7	19.053	C
2 - Main Street	552	138	353	841	0.656	548	558	1.0	1.9	12.264	B
3 - Moresby Road	540	135	270	848	0.636	537	631	1.0	1.7	11.568	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	711	178	208	888	0.801	711	603	3.7	3.9	20.505	C
2 - Main Street	552	138	356	839	0.658	551	562	1.9	1.9	12.602	B
3 - Moresby Road	540	135	272	847	0.637	539	636	1.7	1.7	11.802	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	581	145	171	912	0.637	589	496	3.9	1.9	11.673	B
2 - Main Street	450	113	295	874	0.515	454	465	1.9	1.1	8.688	A
3 - Moresby Road	440	110	224	878	0.502	443	525	1.7	1.0	8.419	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	486	122	143	930	0.523	489	414	1.9	1.1	8.409	A
2 - Main Street	377	94	245	903	0.418	379	387	1.1	0.7	6.932	A
3 - Moresby Road	369	92	187	901	0.409	370	437	1.0	0.7	6.862	A

PM Validated - 2032 With Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM Validated	✓	✓	D2,D4,D6	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	34.41	D

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	3.00	0.0	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	4.00	0.0	11.00	7.60	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.642	872
2 - Main Street	0.581	896
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	150
2 - Main Street	Direct	queue obs	150
3 - Moresby Road	Direct	queue obs	150

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	2032 With Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	776	100.000
2 - Main Street		ONE HOUR	✓	521	100.000
3 - Moresby Road		ONE HOUR	✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	419	357
	2 - Main Street	267	0	254
	3 - Moresby Road	308	189	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	3	2
	2 - Main Street	1	0	0
	3 - Moresby Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.96	61.62	13.9	F	712	1068
2 - Main Street	0.70	14.60	2.3	B	478	717
3 - Moresby Road	0.66	12.69	1.9	B	456	684

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	584	146	141	931	0.627	578	430	0.0	1.7	10.249	B
2 - Main Street	392	98	266	891	0.440	389	453	0.0	0.8	7.162	A
3 - Moresby Road	374	94	199	893	0.419	371	455	0.0	0.7	6.928	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	698	174	169	913	0.764	692	515	1.7	3.1	16.255	C
2 - Main Street	468	117	318	861	0.544	467	543	0.8	1.2	9.148	A
3 - Moresby Road	447	112	239	868	0.515	445	546	0.7	1.1	8.579	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	854	214	207	889	0.961	823	629	3.1	11.0	42.747	E
2 - Main Street	574	143	379	826	0.695	570	651	1.2	2.2	13.906	B
3 - Moresby Road	547	137	292	834	0.656	544	656	1.1	1.9	12.385	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	854	214	208	888	0.962	843	633	11.0	13.9	61.620	F
2 - Main Street	574	143	388	820	0.699	573	663	2.2	2.3	14.596	B
3 - Moresby Road	547	137	294	833	0.657	547	667	1.9	1.9	12.690	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	698	174	171	912	0.765	739	521	13.9	3.6	25.198	D
2 - Main Street	468	117	340	848	0.552	472	570	2.3	1.3	9.725	A
3 - Moresby Road	447	112	242	866	0.516	450	570	1.9	1.1	8.802	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	584	146	143	930	0.628	592	435	3.6	1.8	11.121	B
2 - Main Street	392	98	272	888	0.442	394	462	1.3	0.8	7.362	A
3 - Moresby Road	374	94	202	892	0.420	376	464	1.1	0.7	7.063	A

Junctions 9				
ARCADY 9 - Roundabout Module				
Version: 9.5.1.7462				
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Filename: Cleator Moor Rd_Main St_Moresby Rd mini - Imp.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 4 - B5295 Main Street Cleator Moor Rd Moresby Rd mini.rbt

Report generation date: 18/02/2022 17:46:26

»AM Validated - 2032 With Development, AM

»PM Validated - 2032 With Development, PM

Summary of junction performance

AM				
	Set ID	Queue (PCU)	Delay (s)	RFC
AM Validated - 2032 With Development				
1 - Cleator Moor Road	A1 D1	4.7	24.68	0.83
2 - Main Street		18.2	93.04	1.00
3 - Moresby Road		7.0	35.78	0.89

PM				
	Set ID	Queue (PCU)	Delay (s)	RFC
PM Validated - 2032 With Development				
1 - Cleator Moor Road	A2 D2	4.3	18.86	0.82
2 - Main Street		1.7	10.94	0.63
3 - Moresby Road		1.9	12.69	0.66

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

File summary

File Description

Title	
Location	
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\eleonor.bunn
Description	

Units

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

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2032 With Development	AM	ONE HOUR	08:00	09:30	15	✓
D2	2032 With Development	PM	ONE HOUR	17:00	18:30	15	✓

AM Validated - 2032 With Development, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	AM Validated	✓	✓	D1	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	50.81	F

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	4.50	6.5	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	6.30	2.0	11.00	5.00	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.675	1038
2 - Main Street	0.599	989
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	70
2 - Main Street	Direct	queue obs	-30
3 - Moresby Road	Direct	queue obs	150

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	2032 With Development	AM	ONE HOUR	08:00	09:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	655	100.000
2 - Main Street		ONE HOUR	✓	650	100.000
3 - Moresby Road		ONE HOUR	✓	687	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	288	367
	2 - Main Street	250	0	400
	3 - Moresby Road	363	324	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	2	5
	2 - Main Street	3	0	2
	3 - Moresby Road	2	4	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.83	24.68	4.7	C	601	902
2 - Main Street	1.00	93.04	18.2	F	596	895
3 - Moresby Road	0.89	35.78	7.0	E	630	946

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	493	123	241	945	0.522	489	456	0.0	1.1	8.105	A
2 - Main Street	489	122	274	795	0.615	483	456	0.0	1.6	11.588	B
3 - Moresby Road	517	129	186	902	0.573	512	571	0.0	1.4	9.373	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	589	147	289	912	0.645	586	547	1.1	1.8	11.331	B
2 - Main Street	584	146	328	763	0.766	578	547	1.6	3.1	19.383	C
3 - Moresby Road	618	154	222	879	0.703	614	684	1.4	2.3	13.780	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	721	180	349	872	0.827	711	652	1.8	4.4	21.916	C
2 - Main Street	716	179	398	721	0.993	676	662	3.1	12.9	57.524	F
3 - Moresby Road	756	189	260	855	0.885	741	815	2.3	6.2	29.213	D

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	721	180	355	868	0.831	720	665	4.4	4.7	24.677	C
2 - Main Street	716	179	403	718	0.997	694	672	12.9	18.2	93.037	F
3 - Moresby Road	756	189	267	850	0.890	753	831	6.2	7.0	35.781	E

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	589	147	299	906	0.650	600	582	4.7	2.0	12.597	B
2 - Main Street	584	146	336	758	0.771	642	563	18.2	3.9	41.338	E
3 - Moresby Road	618	154	247	863	0.716	635	731	7.0	2.7	17.303	C

09:15 - 09:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	493	123	246	941	0.524	496	468	2.0	1.2	8.447	A
2 - Main Street	489	122	278	793	0.617	498	465	3.9	1.7	12.857	B
3 - Moresby Road	517	129	192	898	0.576	522	585	2.7	1.4	9.988	A

PM Validated - 2032 With Development, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

ID	Name	Include in report	Use specific Demand Set(s)	Specific Demand Set(s)	Network flow scaling factor (%)	Network capacity scaling factor (%)
A2	PM Validated	✓	✓	D2	100.000	100.000

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	14.85	B

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Cleator Moor Road	
2	Main Street	
3	Moresby 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 - Cleator Moor Road	3.80	3.00	4.50	6.5	15.00	11.50	-4.0	
2 - Main Street	4.00	4.00	6.30	2.0	11.00	5.00	4.0	
3 - Moresby Road	3.60	3.60	3.60	0.0	11.90	8.50	-2.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Cleator Moor Road	0.675	1038
2 - Main Street	0.599	989
3 - Moresby Road	0.638	871

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

Arm Capacity Adjustments

Arm	Type	Reason	Direct capacity adjustment (PCU/hr)
1 - Cleator Moor Road	Direct	queue obs	150
2 - Main Street	Direct	queue obs	150
3 - Moresby Road	Direct	queue obs	150

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	2032 With Development	PM	ONE HOUR	17:00	18:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Cleator Moor Road		ONE HOUR	✓	776	100.000
2 - Main Street		ONE HOUR	✓	521	100.000
3 - Moresby Road		ONE HOUR	✓	497	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	419	357
	2 - Main Street	267	0	254
	3 - Moresby Road	308	189	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - Cleator Moor Road	2 - Main Street	3 - Moresby Road
From	1 - Cleator Moor Road	0	3	2
	2 - Main Street	1	0	0
	3 - Moresby Road	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - Cleator Moor Road	0.82	18.86	4.3	C	712	1068
2 - Main Street	0.63	10.94	1.7	B	478	717
3 - Moresby Road	0.66	12.69	1.9	B	456	684

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	584	146	141	1092	0.535	580	430	0.0	1.2	7.134	A
2 - Main Street	392	98	267	979	0.400	390	454	0.0	0.7	6.108	A
3 - Moresby Road	374	94	200	893	0.419	371	457	0.0	0.7	6.930	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	698	174	169	1073	0.650	695	515	1.2	1.8	9.678	A
2 - Main Street	468	117	320	948	0.494	467	545	0.7	1.0	7.509	A
3 - Moresby Road	447	112	239	868	0.515	445	547	0.7	1.1	8.581	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	854	214	207	1048	0.815	845	630	1.8	4.1	17.462	C
2 - Main Street	574	143	389	906	0.633	571	663	1.0	1.7	10.693	B
3 - Moresby Road	547	137	293	834	0.656	544	667	1.1	1.9	12.399	B

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	854	214	208	1047	0.816	854	633	4.1	4.3	18.857	C
2 - Main Street	574	143	393	904	0.635	573	669	1.7	1.7	10.938	B
3 - Moresby Road	547	137	294	833	0.657	547	672	1.9	1.9	12.693	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	698	174	171	1072	0.651	707	520	4.3	2.0	10.351	B
2 - Main Street	468	117	325	944	0.496	471	553	1.7	1.0	7.693	A
3 - Moresby Road	447	112	241	867	0.516	450	555	1.9	1.1	8.796	A

18:15 - 18:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Cleator Moor Road	584	146	143	1091	0.535	587	434	2.0	1.2	7.366	A
2 - Main Street	392	98	270	977	0.401	394	460	1.0	0.7	6.213	A
3 - Moresby Road	374	94	202	892	0.420	376	462	1.1	0.7	7.061	A

Junctions 9			
PICADY 9 - Priority Intersection Module			
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Filename: A114312 - Dalzell Street_Keekle Terrace priority junction.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 5 - B5295 Keekle Terrace Dalzell Street junction

Report generation date: 17/02/2022 11:39:54

- »2020 Surveyed, AM
- »2020 Surveyed, PM
- »2032 No Development, AM
- »2032 No Development, PM
- »2032 With Development, AM
- »2032 With Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2020 Surveyed							
Stream B-C	D1	0.2	8.42	0.17	D2	0.9	13.50	0.48
Stream B-A		0.1	12.29	0.09		0.3	16.89	0.21
Stream C-AB		0.4	5.71	0.19		1.5	6.68	0.44
	2032 No Development							
Stream B-C	D3	0.2	9.12	0.19	D4	1.1	16.13	0.54
Stream B-A		0.1	13.74	0.10		0.3	20.18	0.25
Stream C-AB		0.5	5.93	0.22		2.1	7.57	0.51
	2032 With Development							
Stream B-C	D5	0.7	12.09	0.39	D6	1.5	20.92	0.60
Stream B-A		0.1	15.09	0.11		0.5	27.83	0.31
Stream C-AB		0.7	5.30	0.25		2.9	9.02	0.58

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

File summary

File Description

Title	
Location	
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\eleonor.bunn
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 Surveyed, 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		1.66	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Keekle Terrace South		Major
B	Dalzell Street		Minor
C	Keekle Terrace North		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 - Keekle Terrace North	8.40			150.0	✓	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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B - Dalzell Street	Two lanes	3.40	3.20	90	38

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	536	0.087	0.221	0.139	0.316
B-C	674	0.093	0.234	-	-
C-B	661	0.229	0.229	-	-

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)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	526	100.000
B - Dalzell Street		✓	110	100.000
C - Keekle Terrace North		✓	422	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	35	491
	B - Dalzell Street	27	0	83
	C - Keekle Terrace North	350	72	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	9	3
	B - Dalzell Street	4	0	3
	C - Keekle Terrace North	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.17	8.42	0.2	A
B-A	0.09	12.29	0.1	B
C-AB	0.19	5.71	0.4	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	577	0.108	62	0.1	7.187	A
B-A	20	398	0.051	20	0.1	9.894	A
C-AB	84	750	0.111	83	0.2	5.504	A
C-A	234			234			
A-B	26			26			
A-C	370			370			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	558	0.134	74	0.2	7.661	A
B-A	24	371	0.065	24	0.1	10.779	B
C-AB	110	771	0.142	109	0.3	5.566	A
C-A	270			270			
A-B	31			31			
A-C	441			441			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	532	0.172	91	0.2	8.413	A
B-A	30	334	0.089	30	0.1	12.281	B
C-AB	154	801	0.192	153	0.4	5.693	A
C-A	311			311			
A-B	39			39			
A-C	541			541			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	91	532	0.172	91	0.2	8.423	A
B-A	30	334	0.089	30	0.1	12.293	B
C-AB	154	801	0.192	154	0.4	5.711	A
C-A	311			311			
A-B	39			39			
A-C	541			541			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	75	558	0.134	75	0.2	7.675	A
B-A	24	371	0.065	24	0.1	10.797	B
C-AB	110	771	0.143	111	0.3	5.593	A
C-A	269			269			
A-B	31			31			
A-C	441			441			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	62	577	0.108	63	0.1	7.207	A
B-A	20	398	0.051	20	0.1	9.916	A
C-AB	84	750	0.112	84	0.2	5.529	A
C-A	234			234			
A-B	26			26			
A-C	370			370			

2020 Surveyed, 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		4.04	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	526	100.000
B - Dalzell Street		✓	276	100.000
C - Keekle Terrace North		✓	721	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	36	490
	B - Dalzell Street	53	0	223
	C - Keekle Terrace North	587	134	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	6	2
	B - Dalzell Street	2	0	1
	C - Keekle Terrace North	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.48	13.50	0.9	B
B-A	0.21	16.89	0.3	C
C-AB	0.44	6.68	1.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	168	569	0.295	166	0.4	8.996	A
B-A	40	359	0.111	39	0.1	11.476	B
C-AB	205	872	0.235	202	0.5	5.454	A
C-A	338			338			
A-B	27			27			
A-C	369			369			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	200	547	0.367	200	0.6	10.461	B
B-A	48	324	0.147	47	0.2	13.266	B
C-AB	285	919	0.310	284	0.8	5.771	A
C-A	363			363			
A-B	32			32			
A-C	440			440			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	246	515	0.477	244	0.9	13.366	B
B-A	58	276	0.211	58	0.3	16.796	C
C-AB	432	986	0.438	430	1.5	6.609	A
C-A	361			361			
A-B	40			40			
A-C	540			540			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	246	515	0.477	245	0.9	13.499	B
B-A	58	276	0.212	58	0.3	16.885	C
C-AB	434	987	0.440	434	1.5	6.679	A
C-A	360			360			
A-B	40			40			
A-C	540			540			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	200	546	0.367	202	0.6	10.587	B
B-A	48	323	0.147	48	0.2	13.355	B
C-AB	287	921	0.311	289	0.8	5.843	A
C-A	362			362			
A-B	32			32			
A-C	440			440			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	168	568	0.295	169	0.4	9.108	A
B-A	40	358	0.111	40	0.1	11.550	B
C-AB	206	873	0.236	207	0.6	5.516	A
C-A	337			337			
A-B	27			27			
A-C	369			369			

2032 No Development, 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
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	627	100.000
B - Dalzell Street		✓	118	100.000
C - Keekle Terrace North		✓	452	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	38	589
	B - Dalzell Street	29	0	89
	C - Keekle Terrace North	375	77	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	9	3
	B - Dalzell Street	4	0	3
	C - Keekle Terrace North	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.19	9.12	0.2	A
B-A	0.10	13.74	0.1	B
C-AB	0.22	5.93	0.5	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	559	0.120	66	0.1	7.516	A
B-A	22	378	0.058	22	0.1	10.495	B
C-AB	93	748	0.124	92	0.2	5.601	A
C-A	247			247			
A-B	29			29			
A-C	443			443			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	536	0.149	80	0.2	8.118	A
B-A	26	347	0.075	26	0.1	11.655	B
C-AB	124	769	0.161	123	0.3	5.700	A
C-A	283			283			
A-B	34			34			
A-C	529			529			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	505	0.194	98	0.2	9.108	A
B-A	32	305	0.105	32	0.1	13.715	B
C-AB	176	801	0.220	175	0.5	5.907	A
C-A	322			322			
A-B	42			42			
A-C	649			649			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	98	505	0.194	98	0.2	9.120	A
B-A	32	304	0.105	32	0.1	13.736	B
C-AB	176	801	0.220	176	0.5	5.927	A
C-A	321			321			
A-B	42			42			
A-C	649			649			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	80	536	0.149	80	0.2	8.133	A
B-A	26	347	0.075	26	0.1	11.681	B
C-AB	124	770	0.161	125	0.3	5.735	A
C-A	282			282			
A-B	34			34			
A-C	529			529			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	67	559	0.120	67	0.1	7.538	A
B-A	22	378	0.058	22	0.1	10.524	B
C-AB	94	749	0.125	94	0.2	5.630	A
C-A	247			247			
A-B	29			29			
A-C	443			443			

2032 No Development, 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		4.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	622	100.000
B - Dalzell Street		✓	293	100.000
C - Keekle Terrace North		✓	767	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	38	584
	B - Dalzell Street	56	0	237
	C - Keekle Terrace North	624	143	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	6	2
	B - Dalzell Street	2	0	1
	C - Keekle Terrace North	2	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.54	16.13	1.1	C
B-A	0.25	20.18	0.3	C
C-AB	0.51	7.57	2.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	551	0.324	177	0.5	9.672	A
B-A	42	337	0.125	42	0.1	12.402	B
C-AB	231	879	0.263	229	0.6	5.620	A
C-A	346			346			
A-B	29			29			
A-C	440			440			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	524	0.406	212	0.7	11.615	B
B-A	50	298	0.169	50	0.2	14.800	B
C-AB	327	929	0.352	326	1.0	6.086	A
C-A	362			362			
A-B	34			34			
A-C	525			525			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	261	486	0.537	259	1.1	15.872	C
B-A	62	244	0.252	61	0.3	19.994	C
C-AB	509	1000	0.509	505	2.0	7.441	A
C-A	336			336			
A-B	42			42			
A-C	643			643			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	261	486	0.537	261	1.1	16.133	C
B-A	62	244	0.253	62	0.3	20.181	C
C-AB	512	1003	0.511	512	2.1	7.573	A
C-A	333			333			
A-B	42			42			
A-C	643			643			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	524	0.407	215	0.7	11.824	B
B-A	50	297	0.170	51	0.2	14.956	B
C-AB	330	932	0.354	334	1.1	6.207	A
C-A	359			359			
A-B	34			34			
A-C	525			525			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	550	0.324	179	0.5	9.827	A
B-A	42	336	0.125	42	0.1	12.507	B
C-AB	233	881	0.265	235	0.7	5.699	A
C-A	344			344			
A-B	29			29			
A-C	440			440			

2032 With Development, 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		2.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	617	100.000
B - Dalzell Street		✓	210	100.000
C - Keekle Terrace North		✓	627	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	38	579
	B - Dalzell Street	29	0	181
	C - Keekle Terrace North	550	77	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	9	3
	B - Dalzell Street	4	0	3
	C - Keekle Terrace North	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.39	12.09	0.7	B
B-A	0.11	15.09	0.1	C
C-AB	0.25	5.30	0.7	A
C-A				
A-B				
A-C				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	561	0.243	135	0.3	8.685	A
B-A	22	361	0.060	22	0.1	11.010	B
C-AB	114	841	0.136	113	0.3	5.067	A
C-A	358			358			
A-B	29			29			
A-C	436			436			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	163	538	0.303	162	0.4	9.859	A
B-A	26	327	0.080	26	0.1	12.425	B
C-AB	158	882	0.180	158	0.4	5.107	A
C-A	405			405			
A-B	34			34			
A-C	521			521			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	506	0.394	198	0.7	12.024	B
B-A	32	280	0.114	32	0.1	15.058	C
C-AB	239	941	0.254	238	0.7	5.276	A
C-A	451			451			
A-B	42			42			
A-C	637			637			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	199	506	0.394	199	0.7	12.094	B
B-A	32	280	0.114	32	0.1	15.092	C
C-AB	240	942	0.255	240	0.7	5.300	A
C-A	450			450			
A-B	42			42			
A-C	637			637			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	163	538	0.303	164	0.5	9.932	A
B-A	26	327	0.080	26	0.1	12.461	B
C-AB	159	883	0.180	160	0.5	5.144	A
C-A	405			405			
A-B	34			34			
A-C	521			521			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	136	560	0.243	137	0.3	8.760	A
B-A	22	361	0.060	22	0.1	11.046	B
C-AB	115	842	0.137	116	0.3	5.099	A
C-A	357			357			
A-B	29			29			
A-C	436			436			

2032 With Development, 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		5.53	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Keekle Terrace South		✓	791	100.000
B - Dalzell Street		✓	293	100.000
C - Keekle Terrace North		✓	805	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	38	753
	B - Dalzell Street	56	0	237
	C - Keekle Terrace North	662	143	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Keekle Terrace South	B - Dalzell Street	C - Keekle Terrace North
From	A - Keekle Terrace South	0	9	3
	B - Dalzell Street	4	0	3
	C - Keekle Terrace North	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.60	20.92	1.5	C
B-A	0.31	27.83	0.5	D
C-AB	0.58	9.02	2.9	A
C-A				
A-B				
A-C				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	520	0.343	176	0.5	10.725	B
B-A	42	305	0.138	42	0.2	14.175	B
C-AB	249	878	0.284	246	0.7	5.855	A
C-A	357			357			
A-B	29			29			
A-C	567			567			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	487	0.437	212	0.8	13.424	B
B-A	50	260	0.194	50	0.2	17.842	C
C-AB	361	930	0.388	359	1.2	6.510	A
C-A	363			363			
A-B	34			34			
A-C	677			677			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	261	438	0.595	258	1.4	20.305	C
B-A	62	197	0.313	61	0.5	27.297	D
C-AB	582	1006	0.578	575	2.8	8.712	A
C-A	305			305			
A-B	42			42			
A-C	829			829			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	261	438	0.596	261	1.5	20.924	C
B-A	62	196	0.315	62	0.5	27.827	D
C-AB	587	1009	0.582	587	2.9	9.016	A
C-A	299			299			
A-B	42			42			
A-C	829			829			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	213	486	0.438	216	0.8	13.824	B
B-A	50	258	0.195	51	0.3	18.174	C
C-AB	365	934	0.391	372	1.3	6.733	A
C-A	358			358			
A-B	34			34			
A-C	677			677			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	178	519	0.343	180	0.5	10.944	B
B-A	42	304	0.139	43	0.2	14.341	B
C-AB	252	880	0.286	254	0.8	5.968	A
C-A	354			354			
A-B	29			29			
A-C	567			567			

Junctions 9									
PICADY 9 - Priority Intersection Module									
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Filename: A114312 - Bowthorn Road_Leconfield Street crossroads.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 6 - B5295 Leconfield Street Bowthorn Road junction

Report generation date: 17/02/2022 12:02:29

- »2020 Surveyed, AM
- »2020 Surveyed, PM
- »2032 No Development, AM
- »2032 No Development, PM
- »2032 With Development, AM
- »2032 With Development, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2020 Surveyed									
Stream B-CD	D1	0.2	7.85	0.16	A	D2	0.2	8.26	0.15	A
Stream B-AD		0.3	12.97	0.25	B		0.3	16.25	0.23	C
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.2	4.90	0.10	A		1.0	6.31	0.35	A
	2032 No Development									
Stream B-CD	D3	0.2	8.20	0.17	A	D4	0.2	8.68	0.17	A
Stream B-AD		0.4	13.93	0.27	B		0.4	17.95	0.26	C
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.3	4.87	0.11	A		1.2	6.62	0.39	A
	2032 With Development									
Stream B-CD	D5	0.3	10.59	0.24	B	D6	0.4	13.36	0.28	B
Stream B-AD		0.7	20.08	0.42	C		1.2	33.49	0.56	D
Stream A-BCD		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream D-ABC		0.0	0.00	0.00	A		0.0	0.00	0.00	A
Stream C-ABD		0.5	5.25	0.19	A		2.0	7.37	0.50	A

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

File summary

File Description

Title	
Location	
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\eleonor.bunn
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 Surveyed, 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	Crossroads	Two-way		2.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Leconfield Street West		Major
B	Bowthorn Road		Minor
C	Leconfield Street East		Major
D	Crossings Close		Minor

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)
A - Leconfield Street West	8.70			115.0	✓	0.00
C - Leconfield Street East	8.70			150.0	✓	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)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Bowthorn Road	One lane plus flare		10.00	6.40	4.30	4.30	4.30		1.00	22	14
D - Crossings Close	One lane	2.80								34	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	641	-	-	-	-	-	-	0.219	0.313	0.219	-	-	-
B-A	549	0.088	0.223	0.223	-	-	-	0.140	0.318	-	0.223	0.223	0.111
B-C	699	0.095	0.239	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	543	0.087	0.221	0.221	-	-	-	0.139	0.315	0.139	-	-	-
B-D, offside lane	549	0.088	0.223	0.223	-	-	-	0.140	0.318	0.140	-	-	-
C-B	661	0.226	0.226	0.323	-	-	-	-	-	-	-	-	-
D-A	624	-	-	-	-	-	-	0.214	-	0.084	-	-	-
D-B, nearside lane	489	0.125	0.125	0.284	-	-	-	0.199	0.199	0.079	-	-	-
D-B, offside lane	489	0.125	0.125	0.284	-	-	-	0.199	0.199	0.079	-	-	-
D-C	489	-	0.125	0.284	0.099	0.199	0.199	0.199	0.199	0.079	-	-	-

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)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	421	100.000
B - Bowthorn Road		✓	162	100.000
C - Leconfield Street East		✓	429	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
	A - Leconfield Street West	0	42	379	0
	B - Bowthorn Road	84	0	78	0
	C - Leconfield Street East	391	38	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
	A - Leconfield Street West	0	2	3	0
	B - Bowthorn Road	2	0	1	0
	C - Leconfield Street East	2	0	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.16	7.85	0.2	A
B-AD	0.25	12.97	0.3	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.10	4.90	0.2	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	59	603	0.097	58	0.1	6.669	A
B-AD	63	431	0.147	63	0.2	9.940	A
A-BCD	0	567	0.000	0	0.0	0.000	A
A-B	32			32			
A-C	285			285			
D-ABC	0	414	0.000	0	0.0	0.000	A
C-ABD	46	787	0.058	45	0.1	4.888	A
C-D	0			0			
C-A	277			277			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	70	581	0.121	70	0.1	7.108	A
B-AD	76	408	0.185	75	0.2	11.026	B
A-BCD	0	553	0.000	0	0.0	0.000	A
A-B	38			38			
A-C	341			341			
D-ABC	0	393	0.000	0	0.0	0.000	A
C-ABD	60	815	0.074	60	0.1	4.813	A
C-D	0			0			
C-A	325			325			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	550	0.156	86	0.2	7.834	A
B-AD	92	376	0.246	92	0.3	12.930	B
A-BCD	0	533	0.000	0	0.0	0.000	A
A-B	46			46			
A-C	417			417			
D-ABC	0	365	0.000	0	0.0	0.000	A
C-ABD	85	854	0.099	84	0.2	4.727	A
C-D	0			0			
C-A	388			388			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	549	0.156	86	0.2	7.846	A
B-AD	92	376	0.246	92	0.3	12.966	B
A-BCD	0	533	0.000	0	0.0	0.000	A
A-B	46			46			
A-C	417			417			
D-ABC	0	364	0.000	0	0.0	0.000	A
C-ABD	85	854	0.099	85	0.2	4.734	A
C-D	0			0			
C-A	387			387			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	70	581	0.121	70	0.1	7.123	A
B-AD	76	408	0.185	76	0.2	11.064	B
A-BCD	0	553	0.000	0	0.0	0.000	A
A-B	38			38			
A-C	341			341			
D-ABC	0	393	0.000	0	0.0	0.000	A
C-ABD	60	815	0.074	61	0.1	4.825	A
C-D	0			0			
C-A	325			325			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	59	602	0.098	59	0.1	6.694	A
B-AD	63	431	0.147	63	0.2	9.990	A
A-BCD	0	567	0.000	0	0.0	0.000	A
A-B	32			32			
A-C	285			285			
D-ABC	0	414	0.000	0	0.0	0.000	A
C-ABD	46	787	0.058	46	0.1	4.897	A
C-D	0			0			
C-A	277			277			

2020 Surveyed, 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	Crossroads	Two-way		2.33	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	618	100.000
B - Bowthorn Road		✓	134	100.000
C - Leconfield Street East		✓	597	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	90	528	0
	B - Bowthorn Road	61	0	73	0
	C - Leconfield Street East	485	112	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	1	2	0
	B - Bowthorn Road	0	0	1	0
	C - Leconfield Street East	2	1	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.15	8.26	0.2	A
B-AD	0.23	16.25	0.3	C
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.35	6.31	1.0	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	55	588	0.093	55	0.1	6.809	A
B-AD	46	369	0.125	45	0.1	11.112	B
A-BCD	0	534	0.000	0	0.0	0.000	A
A-B	68			68			
A-C	398			398			
D-ABC	0	375	0.000	0	0.0	0.000	A
C-ABD	154	808	0.190	152	0.4	5.553	A
C-D	0			0			
C-A	296			296			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	66	561	0.117	66	0.1	7.331	A
B-AD	55	335	0.164	55	0.2	12.819	B
A-BCD	0	513	0.000	0	0.0	0.000	A
A-B	81			81			
A-C	475			475			
D-ABC	0	346	0.000	0	0.0	0.000	A
C-ABD	210	842	0.249	209	0.6	5.767	A
C-D	0			0			
C-A	327			327			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	80	521	0.154	80	0.2	8.245	A
B-AD	67	289	0.233	67	0.3	16.179	C
A-BCD	0	484	0.000	0	0.0	0.000	A
A-B	99			99			
A-C	581			581			
D-ABC	0	305	0.000	0	0.0	0.000	A
C-ABD	310	892	0.347	308	1.0	6.272	A
C-D	0			0			
C-A	348			348			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	80	520	0.154	80	0.2	8.261	A
B-AD	67	289	0.233	67	0.3	16.254	C
A-BCD	0	484	0.000	0	0.0	0.000	A
A-B	99			99			
A-C	581			581			
D-ABC	0	305	0.000	0	0.0	0.000	A
C-ABD	311	892	0.348	311	1.0	6.306	A
C-D	0			0			
C-A	347			347			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	66	561	0.117	66	0.1	7.349	A
B-AD	55	335	0.164	55	0.2	12.890	B
A-BCD	0	513	0.000	0	0.0	0.000	A
A-B	81			81			
A-C	475			475			
D-ABC	0	345	0.000	0	0.0	0.000	A
C-ABD	211	843	0.250	212	0.6	5.814	A
C-D	0			0			
C-A	326			326			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	55	587	0.094	55	0.1	6.832	A
B-AD	46	368	0.125	46	0.1	11.176	B
A-BCD	0	534	0.000	0	0.0	0.000	A
A-B	68			68			
A-C	398			398			
D-ABC	0	374	0.000	0	0.0	0.000	A
C-ABD	155	809	0.191	156	0.4	5.596	A
C-D	0			0			
C-A	295			295			

2032 No Development, 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	Crossroads	Two-way		2.14	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	451	100.000
B - Bowthorn Road		✓	174	100.000
C - Leconfield Street East		✓	460	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	45	406	0
	B - Bowthorn Road	90	0	84	0
	C - Leconfield Street East	419	41	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	2	3	0
	B - Bowthorn Road	2	0	1	0
	C - Leconfield Street East	2	0	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.17	8.20	0.2	A
B-AD	0.27	13.93	0.4	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.11	4.87	0.3	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	63	595	0.106	63	0.1	6.821	A
B-AD	68	423	0.160	67	0.2	10.305	B
A-BCD	0	562	0.000	0	0.0	0.000	A
A-B	34			34			
A-C	306			306			
D-ABC	0	406	0.000	0	0.0	0.000	A
C-ABD	51	797	0.064	51	0.1	4.860	A
C-D	0			0			
C-A	295			295			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	76	572	0.132	75	0.2	7.322	A
B-AD	81	398	0.203	81	0.3	11.574	B
A-BCD	0	546	0.000	0	0.0	0.000	A
A-B	40			40			
A-C	365			365			
D-ABC	0	384	0.000	0	0.0	0.000	A
C-ABD	68	827	0.082	68	0.2	4.783	A
C-D	0			0			
C-A	346			346			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	536	0.172	92	0.2	8.185	A
B-AD	99	363	0.273	99	0.4	13.884	B
A-BCD	0	525	0.000	0	0.0	0.000	A
A-B	50			50			
A-C	447			447			
D-ABC	0	353	0.000	0	0.0	0.000	A
C-ABD	97	870	0.111	96	0.2	4.706	A
C-D	0			0			
C-A	410			410			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	92	536	0.173	92	0.2	8.201	A
B-AD	99	363	0.273	99	0.4	13.933	B
A-BCD	0	525	0.000	0	0.0	0.000	A
A-B	50			50			
A-C	447			447			
D-ABC	0	353	0.000	0	0.0	0.000	A
C-ABD	97	870	0.111	97	0.3	4.713	A
C-D	0			0			
C-A	410			410			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	76	571	0.132	76	0.2	7.340	A
B-AD	81	398	0.203	81	0.3	11.629	B
A-BCD	0	546	0.000	0	0.0	0.000	A
A-B	40			40			
A-C	365			365			
D-ABC	0	384	0.000	0	0.0	0.000	A
C-ABD	68	827	0.082	68	0.2	4.798	A
C-D	0			0			
C-A	345			345			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	63	595	0.106	63	0.1	6.845	A
B-AD	68	423	0.160	68	0.2	10.366	B
A-BCD	0	562	0.000	0	0.0	0.000	A
A-B	34			34			
A-C	306			306			
D-ABC	0	406	0.000	0	0.0	0.000	A
C-ABD	51	797	0.064	52	0.1	4.872	A
C-D	0			0			
C-A	295			295			

2032 No Development, 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	Crossroads	Two-way		2.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	658	100.000
B - Bowthorn Road		✓	143	100.000
C - Leconfield Street East		✓	635	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	96	562	0
	B - Bowthorn Road	65	0	78	0
	C - Leconfield Street East	516	119	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	1	2	0
	B - Bowthorn Road	0	0	1	0
	C - Leconfield Street East	2	1	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.17	8.68	0.2	A
B-AD	0.26	17.95	0.4	C
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.39	6.62	1.2	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	59	580	0.101	58	0.1	6.967	A
B-AD	49	358	0.137	48	0.2	11.610	B
A-BCD	0	527	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	423			423			
D-ABC	0	365	0.000	0	0.0	0.000	A
C-ABD	170	819	0.208	169	0.4	5.615	A
C-D	0			0			
C-A	308			308			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	70	550	0.127	70	0.1	7.567	A
B-AD	58	322	0.181	58	0.2	13.633	B
A-BCD	0	505	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	505			505			
D-ABC	0	334	0.000	0	0.0	0.000	A
C-ABD	235	856	0.275	234	0.7	5.892	A
C-D	0			0			
C-A	336			336			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	505	0.170	86	0.2	8.662	A
B-AD	72	272	0.263	71	0.3	17.831	C
A-BCD	0	474	0.000	0	0.0	0.000	A
A-B	106			106			
A-C	619			619			
D-ABC	0	291	0.000	0	0.0	0.000	A
C-ABD	352	909	0.387	350	1.2	6.566	A
C-D	0			0			
C-A	347			347			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	86	505	0.170	86	0.2	8.684	A
B-AD	72	272	0.263	72	0.4	17.947	C
A-BCD	0	474	0.000	0	0.0	0.000	A
A-B	106			106			
A-C	619			619			
D-ABC	0	291	0.000	0	0.0	0.000	A
C-ABD	353	911	0.388	353	1.2	6.615	A
C-D	0			0			
C-A	346			346			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	70	549	0.128	70	0.1	7.594	A
B-AD	58	322	0.182	59	0.2	13.731	B
A-BCD	0	504	0.000	0	0.0	0.000	A
A-B	86			86			
A-C	505			505			
D-ABC	0	334	0.000	0	0.0	0.000	A
C-ABD	236	857	0.276	238	0.7	5.953	A
C-D	0			0			
C-A	335			335			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	59	579	0.101	59	0.1	6.996	A
B-AD	49	357	0.137	49	0.2	11.691	B
A-BCD	0	527	0.000	0	0.0	0.000	A
A-B	72			72			
A-C	423			423			
D-ABC	0	365	0.000	0	0.0	0.000	A
C-ABD	172	820	0.209	173	0.5	5.667	A
C-D	0			0			
C-A	306			306			

2032 With Development, 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	Crossroads	Two-way		3.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	632	100.000
B - Bowthorn Road		✓	221	100.000
C - Leconfield Street East		✓	504	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	111	521	0
	B - Bowthorn Road	121	0	100	0
	C - Leconfield Street East	442	62	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	2	3	0
	B - Bowthorn Road	2	0	1	0
	C - Leconfield Street East	2	0	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.24	10.59	0.3	B
B-AD	0.42	20.08	0.7	C
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.19	5.25	0.5	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	75	551	0.137	75	0.2	7.616	A
B-AD	91	394	0.231	90	0.3	12.028	B
A-BCD	0	553	0.000	0	0.0	0.000	A
A-B	84			84			
A-C	392			392			
D-ABC	0	385	0.000	0	0.0	0.000	A
C-ABD	81	784	0.103	80	0.2	5.159	A
C-D	0			0			
C-A	298			298			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	90	516	0.174	90	0.2	8.533	A
B-AD	109	362	0.301	108	0.4	14.448	B
A-BCD	0	536	0.000	0	0.0	0.000	A
A-B	100			100			
A-C	468			468			
D-ABC	0	358	0.000	0	0.0	0.000	A
C-ABD	110	813	0.135	109	0.3	5.170	A
C-D	0			0			
C-A	344			344			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	110	455	0.242	110	0.3	10.518	B
B-AD	133	316	0.422	132	0.7	19.833	C
A-BCD	0	512	0.000	0	0.0	0.000	A
A-B	122			122			
A-C	574			574			
D-ABC	0	321	0.000	0	0.0	0.000	A
C-ABD	159	855	0.187	159	0.5	5.237	A
C-D	0			0			
C-A	395			395			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	110	453	0.243	110	0.3	10.587	B
B-AD	133	316	0.422	133	0.7	20.081	C
A-BCD	0	512	0.000	0	0.0	0.000	A
A-B	122			122			
A-C	574			574			
D-ABC	0	321	0.000	0	0.0	0.000	A
C-ABD	160	855	0.187	160	0.5	5.253	A
C-D	0			0			
C-A	395			395			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	90	514	0.175	90	0.2	8.592	A
B-AD	109	362	0.301	110	0.4	14.644	B
A-BCD	0	536	0.000	0	0.0	0.000	A
A-B	100			100			
A-C	468			468			
D-ABC	0	358	0.000	0	0.0	0.000	A
C-ABD	110	813	0.135	111	0.3	5.195	A
C-D	0			0			
C-A	343			343			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	75	550	0.137	76	0.2	7.666	A
B-AD	91	394	0.231	92	0.3	12.172	B
A-BCD	0	553	0.000	0	0.0	0.000	A
A-B	84			84			
A-C	392			392			
D-ABC	0	385	0.000	0	0.0	0.000	A
C-ABD	82	784	0.104	82	0.2	5.183	A
C-D	0			0			
C-A	298			298			

2032 With Development, 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	Crossroads	Two-way		4.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Leconfield Street West		✓	695	100.000
B - Bowthorn Road		✓	222	100.000
C - Leconfield Street East		✓	773	100.000
D - Crossings Close		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	116	579	0
	B - Bowthorn Road	125	0	97	0
	C - Leconfield Street East	640	133	0	0
	D - Crossings Close	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - Leconfield Street West	B - Bowthorn Road	C - Leconfield Street East	D - Crossings Close
From	A - Leconfield Street West	0	1	2	0
	B - Bowthorn Road	0	0	1	0
	C - Leconfield Street East	2	1	0	0
	D - Crossings Close	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.28	13.36	0.4	B
B-AD	0.56	33.49	1.2	D
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.50	7.37	2.0	A
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	73	530	0.138	72	0.2	7.936	A
B-AD	94	347	0.271	93	0.4	14.067	B
A-BCD	0	504	0.000	0	0.0	0.000	A
A-B	87			87			
A-C	436			436			
D-ABC	0	339	0.000	0	0.0	0.000	A
C-ABD	222	879	0.252	219	0.6	5.536	A
C-D	0			0			
C-A	360			360			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	87	482	0.181	87	0.2	9.192	A
B-AD	112	305	0.368	112	0.6	18.531	C
A-BCD	0	476	0.000	0	0.0	0.000	A
A-B	104			104			
A-C	521			521			
D-ABC	0	302	0.000	0	0.0	0.000	A
C-ABD	316	930	0.340	315	1.0	5.964	A
C-D	0			0			
C-A	379			379			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	107	384	0.278	106	0.4	13.034	B
B-AD	138	245	0.561	135	1.2	31.999	D
A-BCD	0	439	0.000	0	0.0	0.000	A
A-B	128			128			
A-C	637			637			
D-ABC	0	251	0.000	0	0.0	0.000	A
C-ABD	498	1003	0.497	494	2.0	7.243	A
C-D	0			0			
C-A	353			353			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	107	379	0.282	107	0.4	13.361	B
B-AD	138	244	0.563	137	1.2	33.486	D
A-BCD	0	438	0.000	0	0.0	0.000	A
A-B	128			128			
A-C	637			637			
D-ABC	0	250	0.000	0	0.0	0.000	A
C-ABD	501	1006	0.499	501	2.0	7.368	A
C-D	0			0			
C-A	350			350			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	87	478	0.183	88	0.2	9.341	A
B-AD	112	304	0.369	115	0.6	19.257	C
A-BCD	0	475	0.000	0	0.0	0.000	A
A-B	104			104			
A-C	521			521			
D-ABC	0	301	0.000	0	0.0	0.000	A
C-ABD	319	933	0.342	323	1.0	6.078	A
C-D	0			0			
C-A	376			376			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	73	528	0.138	73	0.2	8.010	A
B-AD	94	347	0.272	95	0.4	14.366	B
A-BCD	0	503	0.000	0	0.0	0.000	A
A-B	87			87			
A-C	436			436			
D-ABC	0	338	0.000	0	0.0	0.000	A
C-ABD	224	881	0.254	225	0.6	5.612	A
C-D	0			0			
C-A	358			358			

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.1.7462 © Copyright TRL Limited, 2019			
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Filename: A114312 - Birks Rd_High St priority junction.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 7 - B5295 High Street Birks Road junction

Report generation date: 17/02/2022 12:14:04

- »2020 Surveyed, AM
- »2020 Surveyed, PM
- »2032 No Development, AM
- »2032 No Development, PM
- »2032 With Development, AM
- »2032 With Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2020 Surveyed							
Stream B-AC	D1	0.4	10.95	0.26	D2	0.6	14.80	0.37
Stream C-AB		0.2	5.02	0.11		0.5	5.12	0.19
Stream A-BC		0.4	3.27	0.30		0.6	3.74	0.39
	2032 No Development							
Stream B-AC	D3	0.4	11.70	0.29	D4	0.7	16.46	0.41
Stream C-AB		0.3	5.01	0.12		0.6	5.17	0.22
Stream A-BC		0.5	3.37	0.32		0.7	3.90	0.41
	2032 With Development							
Stream B-AC	D5	0.4	12.53	0.31	D6	2.4	38.10	0.71
Stream C-AB		0.4	5.14	0.17		0.6	5.22	0.22
Stream A-BC		0.6	3.59	0.36		0.8	4.07	0.44

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

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

File summary

File Description

Title	
Location	
Site number	
Date	03/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\eleonor.bunn
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 Surveyed, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	High Street West		Major
B	Birks Road		Minor
C	High Street		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 - High Street	5.50			180.0	✓	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 - Birks Road	One lane	3.60	25	20

Pelican/Puffin Crossings

Arm	Space between crossing and junc. entry (Signalised) (PCU)	Amber time preceding red (s)	Amber time regarded as green (s)	Time from traffic red start to green man start (s)	Time period green man shown (s)	Clearance Period (s)	Traffic minimum green (s)
A - High Street West	2.00	4.00	2.90	1.00	6.00	6.00	7.00

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	525	0.098	0.247	0.155	0.353
B-C	675	0.106	0.267	-	-
C-B	678	0.268	0.268	-	-

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)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	432	100.000
B - Birks Road		✓	108	100.000
C - High Street		✓	410	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	59	373
	B - Birks Road	39	0	69
	C - High Street	367	43	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	0	3
	B - Birks Road	3	0	0
	C - High Street	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	10.95	0.4	B
C-AB	0.11	5.02	0.2	A
C-A				
A-BC	0.30	3.27	0.4	A

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81		504	0.161	81	0.2	8.570	A
C-AB	50		776	0.065	50	0.1	5.006	A
C-A	258				258			
A-BC	325	45.17	1669	0.195	324	0.2	2.744	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	97		482	0.201	97	0.3	9.434	A
C-AB	66		799	0.083	66	0.2	4.971	A
C-A	303				303			
A-BC	388	53.94	1641	0.237	388	0.3	2.946	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	119		451	0.263	118	0.4	10.913	B
C-AB	93		831	0.111	92	0.2	4.943	A
C-A	359				359			
A-BC	476	66.06	1605	0.296	475	0.4	3.266	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	119		451	0.264	119	0.4	10.946	B
C-AB	93		831	0.112	93	0.2	4.954	A
C-A	359				359			
A-BC	476	66.06	1605	0.296	476	0.4	3.268	A

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	97		482	0.201	97	0.3	9.471	A
C-AB	66		799	0.083	67	0.2	4.992	A
C-A	302				302			
A-BC	388	53.94	1641	0.237	389	0.3	2.950	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81		504	0.161	82	0.2	8.620	A
C-AB	50		776	0.065	51	0.1	5.021	A
C-A	258				258			
A-BC	325	45.17	1669	0.195	326	0.2	2.750	A

2020 Surveyed, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.85	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	568	100.000
B - Birks Road		✓	131	100.000
C - High Street		✓	536	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	66	502
	B - Birks Road	49	0	82
	C - High Street	473	63	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - High Street West	B - Birks Road	C - High Street
	A - High Street West	0	0	2
	B - Birks Road	3	0	0
	C - High Street	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.37	14.80	0.6	B
C-AB	0.19	5.12	0.5	A
C-A				
A-BC	0.39	3.74	0.6	A

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99		464	0.213	98	0.3	9.887	A
C-AB	85		808	0.105	84	0.2	5.014	A
C-A	319				319			
A-BC	428	45.17	1669	0.256	426	0.3	2.944	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118		433	0.272	117	0.4	11.483	B
C-AB	115		838	0.138	115	0.3	5.030	A
C-A	366				366			
A-BC	511	53.94	1641	0.311	510	0.5	3.238	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144		390	0.370	143	0.6	14.688	B
C-AB	170		884	0.192	169	0.5	5.105	A
C-A	420				420			
A-BC	625	66.06	1605	0.390	625	0.6	3.735	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	144		390	0.370	144	0.6	14.799	B
C-AB	170		884	0.193	170	0.5	5.118	A
C-A	420				420			
A-BC	625	66.06	1605	0.390	625	0.6	3.738	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	118		433	0.272	119	0.4	11.588	B
C-AB	116		839	0.138	117	0.3	5.055	A
C-A	366				366			
A-BC	511	53.94	1641	0.311	511	0.5	3.243	A

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	99		463	0.213	99	0.3	9.987	A
C-AB	85		808	0.106	86	0.2	5.041	A
C-A	318				318			
A-BC	428	45.17	1669	0.256	428	0.4	2.951	A

2032 No Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.28	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	463	100.000
B - Birks Road		✓	116	100.000
C - High Street		✓	439	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	63	400
	B - Birks Road	42	0	74
	C - High Street	393	46	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - High Street West	B - Birks Road	C - High Street
	A - High Street West	0	0	3
	B - Birks Road	3	0	0
	C - High Street	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.29	11.70	0.4	B
C-AB	0.12	5.01	0.3	A
C-A				
A-BC	0.32	3.37	0.5	A

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87		496	0.176	86	0.2	8.863	A
C-AB	56		784	0.071	55	0.1	4.990	A
C-A	275				275			
A-BC	349	45.17	1669	0.209	347	0.3	2.790	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104		472	0.221	104	0.3	9.872	A
C-AB	74		808	0.091	73	0.2	4.959	A
C-A	321				321			
A-BC	416	53.94	1641	0.254	416	0.3	3.013	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128		439	0.291	127	0.4	11.654	B
C-AB	104		844	0.124	104	0.3	4.941	A
C-A	379				379			
A-BC	510	66.06	1605	0.318	509	0.5	3.368	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	128		439	0.291	128	0.4	11.698	B
C-AB	105		844	0.124	105	0.3	4.952	A
C-A	379				379			
A-BC	510	66.06	1605	0.318	510	0.5	3.370	A

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	104		472	0.221	105	0.3	9.920	A
C-AB	74		809	0.091	74	0.2	4.980	A
C-A	321				321			
A-BC	416	53.94	1641	0.254	417	0.4	3.015	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	87		496	0.176	88	0.2	8.924	A
C-AB	56		784	0.071	56	0.1	5.008	A
C-A	275				275			
A-BC	349	45.17	1669	0.209	349	0.3	2.798	A

2032 No Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		4.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	604	100.000
B - Birks Road		✓	139	100.000
C - High Street		✓	570	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	70	534
	B - Birks Road	52	0	87
	C - High Street	503	67	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - High Street West	B - Birks Road	C - High Street
	A - High Street West	0	0	2
	B - Birks Road	3	0	0
	C - High Street	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.41	16.46	0.7	C
C-AB	0.22	5.17	0.6	A
C-A				
A-BC	0.41	3.90	0.7	A

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105		454	0.230	103	0.3	10.339	B
C-AB	94		818	0.115	93	0.2	5.012	A
C-A	335				335			
A-BC	455	45.17	1669	0.272	453	0.4	3.008	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	125		421	0.297	124	0.4	12.240	B
C-AB	129		851	0.152	129	0.3	5.042	A
C-A	383				383			
A-BC	543	53.94	1641	0.331	542	0.5	3.331	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	153		374	0.409	152	0.7	16.286	C
C-AB	193		900	0.215	192	0.6	5.157	A
C-A	434				434			
A-BC	665	66.06	1605	0.414	664	0.7	3.890	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	153		374	0.409	153	0.7	16.457	C
C-AB	194		900	0.215	194	0.6	5.173	A
C-A	434				434			
A-BC	665	66.06	1605	0.414	665	0.7	3.896	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	125		421	0.297	126	0.4	12.388	B
C-AB	130		851	0.152	131	0.4	5.069	A
C-A	383				383			
A-BC	543	53.94	1641	0.331	544	0.5	3.339	A

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105		454	0.231	105	0.3	10.461	B
C-AB	95		818	0.116	95	0.2	5.039	A
C-A	335				335			
A-BC	455	45.17	1669	0.272	455	0.4	3.017	A

2032 With Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		3.49	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Am	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	525	100.000
B - Birks Road		✓	117	100.000
C - High Street		✓	490	100.000

Demand overview (Pedestrians)

Am	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	110	415
	B - Birks Road	43	0	74
	C - High Street	431	59	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - High Street West	B - Birks Road	C - High Street
	A - High Street West	0	0	3
	B - Birks Road	3	0	0
	C - High Street	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.31	12.53	0.4	B
C-AB	0.17	5.14	0.4	A
C-A				
A-BC	0.36	3.59	0.6	A

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88		483	0.182	87	0.2	9.165	A
C-AB	75		793	0.095	74	0.2	5.067	A
C-A	294				294			
A-BC	395	45.17	1669	0.237	394	0.3	2.886	A

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105		457	0.230	105	0.3	10.329	B
C-AB	101		820	0.123	101	0.3	5.074	A
C-A	340				340			
A-BC	472	53.94	1641	0.288	472	0.4	3.149	A

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129		419	0.307	128	0.4	12.472	B
C-AB	146		860	0.170	145	0.4	5.123	A
C-A	394				394			
A-BC	578	66.06	1605	0.360	577	0.6	3.584	A

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	129		419	0.307	129	0.4	12.529	B
C-AB	146		860	0.170	146	0.4	5.136	A
C-A	393				393			
A-BC	578	66.06	1605	0.360	578	0.6	3.586	A

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	105		456	0.230	106	0.3	10.393	B
C-AB	101		820	0.123	102	0.3	5.100	A
C-A	339				339			
A-BC	472	53.94	1641	0.288	473	0.4	3.153	A

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	88		483	0.182	88	0.2	9.234	A
C-AB	76		793	0.095	76	0.2	5.092	A
C-A	293				293			
A-BC	395	45.17	1669	0.237	396	0.3	2.893	A

2032 With Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	C - High Street - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way		8.02	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street West		✓	640	100.000
B - Birks Road		✓	212	100.000
C - High Street		✓	581	100.000

Demand overview (Pedestrians)

Arm	Average pedestrian flow (Ped/hr)
A - High Street West	60.00
B - Birks Road	
C - High Street	

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - High Street West	B - Birks Road	C - High Street
From	A - High Street West	0	70	570
	B - Birks Road	109	0	103
	C - High Street	514	67	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - High Street West	B - Birks Road	C - High Street
	A - High Street West	0	0	2
	B - Birks Road	3	0	0
	C - High Street	2	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.71	38.10	2.4	E
C-AB	0.22	5.22	0.6	A
C-A				
A-BC	0.44	4.07	0.8	A

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160		416	0.384	157	0.6	14.008	B
C-AB	96		818	0.117	95	0.2	5.025	A
C-A	342				342			
A-BC	482	45.17	1669	0.289	480	0.4	3.077	A

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	191		379	0.502	189	1.0	19.056	C
C-AB	132		851	0.156	132	0.4	5.062	A
C-A	390				390			
A-BC	575	53.94	1641	0.351	575	0.5	3.433	A

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	233		328	0.712	228	2.2	35.110	E
C-AB	200		901	0.221	199	0.6	5.193	A
C-A	440				440			
A-BC	705	66.06	1605	0.439	704	0.8	4.061	A

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	233		327	0.713	233	2.4	38.098	E
C-AB	200		902	0.222	200	0.6	5.216	A
C-A	440				440			
A-BC	705	66.06	1605	0.439	705	0.8	4.068	A

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	191		379	0.503	196	1.1	20.482	C
C-AB	133		852	0.156	134	0.4	5.092	A
C-A	389				389			
A-BC	575	53.94	1641	0.351	576	0.6	3.442	A

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	160		415	0.385	161	0.7	14.505	B
C-AB	96		818	0.118	97	0.3	5.056	A
C-A	341				341			
A-BC	482	45.17	1669	0.289	482	0.4	3.087	A

Junctions 9			
PICADY 9 - Priority Intersection Module			
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Filename: A114312 - Jacktrees Road_High Street crossroads.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 8 - B5295 Jacktrees Road junction

Report generation date: 17/02/2022 12:23:15

- »2020 Surveyed, AM
- »2020 Surveyed, PM
- »2032 No Development, AM
- »2032 No Development, PM
- »2032 With Development, AM
- »2032 With Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2020 Surveyed							
Stream B-CD	D1	0.3	6.75	0.21	D2	0.8	9.64	0.45
Stream B-AD		0.0	9.18	0.04		0.0	10.73	0.03
Stream A-BCD		0.0	0.00	0.00		0.0	0.00	0.00
Stream D-ABC		0.0	0.00	0.00		0.0	0.00	0.00
Stream C-ABD		0.9	8.03	0.40		1.8	10.28	0.57
	2032 No Development							
Stream B-CD	D3	0.3	6.98	0.23	D4	0.9	10.32	0.48
Stream B-AD		0.0	9.54	0.04		0.0	11.44	0.04
Stream A-BCD		0.0	0.00	0.00		0.0	0.00	0.00
Stream D-ABC		0.0	0.00	0.00		0.0	0.00	0.00
Stream C-ABD		1.1	8.48	0.44		2.3	11.51	0.62
	2032 With Development							
Stream B-CD	D5	0.4	7.72	0.30	D6	1.0	10.65	0.50
Stream B-AD		0.0	9.87	0.04		0.0	12.25	0.04
Stream A-BCD		0.0	0.00	0.00		0.0	0.00	0.00
Stream D-ABC		0.0	0.00	0.00		0.0	0.00	0.00
Stream C-ABD		1.2	9.00	0.47		3.8	16.62	0.74

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

File summary

File Description

Title	
Location	
Site number	
Date	11/03/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\eleonor.bunn
Description	

Units

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

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2020 Surveyed, 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	Crossroads	Two-way		3.58	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	High Street		Major
B	Jacktrees Road		Minor
C	High Street West		Major
D	North Street		Minor

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)
A - High Street	9.60			64.0	✓	0.00
C - High Street West	9.60			125.0	✓	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)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Jacktrees Road	One lane plus flare		8.70	3.70	3.50	3.50	3.50		1.00	25	125
D - North Street	One lane	2.60								27	17

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for A-D	Slope for B-A	Slope for B-C	Slope for B-D	Slope for C-A	Slope for C-B	Slope for C-D	Slope for D-A	Slope for D-B	Slope for D-C
A-D	611	-	-	-	-	-	-	0.200	0.285	0.200	-	-	-
B-A	585	0.090	0.227	0.227	-	-	-	0.143	0.325	-	0.227	0.227	0.114
B-C	762	0.098	0.249	-	-	-	-	-	-	-	-	-	-
B-D, nearside lane	593	0.091	0.230	0.230	-	-	-	0.145	0.329	0.145	-	-	-
B-D, offside lane	585	0.090	0.227	0.227	-	-	-	0.143	0.325	0.143	-	-	-
C-B	646	0.211	0.211	0.302	-	-	-	-	-	-	-	-	-
D-A	609	-	-	-	-	-	-	0.199	-	0.079	-	-	-
D-B, nearside lane	475	0.116	0.116	0.263	-	-	-	0.184	0.184	0.073	-	-	-
D-B, offside lane	475	0.116	0.116	0.263	-	-	-	0.184	0.184	0.073	-	-	-
D-C	475	-	0.116	0.263	0.092	0.184	0.184	0.184	0.184	0.073	-	-	-

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)
D1	2020 Surveyed	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	291	100.000
B - Jacktrees Road		✓	146	100.000
C - High Street West		✓	432	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	18	273	0
	B - Jacktrees Road	14	0	132	0
	C - High Street West	256	176	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	6	4	0
	B - Jacktrees Road	0	0	0	0
	C - High Street West	3	3	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.21	6.75	0.3	A
B-AD	0.04	9.18	0.0	A
ABCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.40	8.03	0.9	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	99	705	0.141	99	0.2	5.930	A
B-AD	11	466	0.023	10	0.0	7.906	A
A-BCD	0	535	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	206			206			
D-ABC	0	418	0.000	0	0.0	0.000	A
C-ABD	180	729	0.247	178	0.4	6.729	A
C-D	0			0			
C-A	145			145			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	694	0.171	118	0.2	6.254	A
B-AD	13	441	0.029	13	0.0	8.396	A
A-BCD	0	519	0.000	0	0.0	0.000	A
A-B	16			16			
A-C	245			245			
D-ABC	0	400	0.000	0	0.0	0.000	A
C-ABD	229	746	0.308	229	0.6	7.174	A
C-D	0			0			
C-A	159			159			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	145	678	0.214	145	0.3	6.748	A
B-AD	15	408	0.038	15	0.0	9.174	A
A-BCD	0	499	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	301			301			
D-ABC	0	377	0.000	0	0.0	0.000	A
C-ABD	307	770	0.398	305	0.9	7.984	A
C-D	0			0			
C-A	169			169			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	145	678	0.214	145	0.3	6.754	A
B-AD	15	407	0.038	15	0.0	9.183	A
A-BCD	0	499	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	301			301			
D-ABC	0	376	0.000	0	0.0	0.000	A
C-ABD	307	771	0.398	307	0.9	8.025	A
C-D	0			0			
C-A	169			169			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	119	694	0.171	119	0.2	6.262	A
B-AD	13	441	0.029	13	0.0	8.407	A
A-BCD	0	519	0.000	0	0.0	0.000	A
A-B	16			16			
A-C	245			245			
D-ABC	0	400	0.000	0	0.0	0.000	A
C-ABD	230	747	0.308	231	0.6	7.226	A
C-D	0			0			
C-A	158			158			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	99	705	0.141	100	0.2	5.948	A
B-AD	11	465	0.023	11	0.0	7.924	A
A-BCD	0	534	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	206			206			
D-ABC	0	417	0.000	0	0.0	0.000	A
C-ABD	181	729	0.248	181	0.4	6.791	A
C-D	0			0			
C-A	144			144			

2020 Surveyed, 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	Crossroads	Two-way		6.01	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2020 Surveyed	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	278	100.000
B - Jacktrees Road		✓	289	100.000
C - High Street West		✓	571	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
From	A - High Street	0	25	253	0
	B - Jacktrees Road	10	0	279	0
	C - High Street West	333	238	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
From	A - High Street	0	0	2	0
	B - Jacktrees Road	0	0	1	0
	C - High Street West	2	1	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.45	9.64	0.8	A
B-AD	0.03	10.73	0.0	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.57	10.28	1.8	B
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	210	709	0.296	208	0.4	7.235	A
B-AD	8	435	0.017	7	0.0	8.416	A
A-BCD	0	510	0.000	0	0.0	0.000	A
A-B	19			19			
A-C	190			190			
D-ABC	0	393	0.000	0	0.0	0.000	A
C-ABD	266	769	0.346	263	0.7	7.189	A
C-D	0			0			
C-A	164			164			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	251	699	0.359	250	0.6	8.093	A
B-AD	9	400	0.022	9	0.0	9.213	A
A-BCD	0	490	0.000	0	0.0	0.000	A
A-B	22			22			
A-C	227			227			
D-ABC	0	371	0.000	0	0.0	0.000	A
C-ABD	345	795	0.434	343	1.0	8.091	A
C-D	0			0			
C-A	169			169			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	307	684	0.449	306	0.8	9.588	A
B-AD	11	347	0.032	11	0.0	10.698	B
A-BCD	0	462	0.000	0	0.0	0.000	A
A-B	28			28			
A-C	279			279			
D-ABC	0	339	0.000	0	0.0	0.000	A
C-ABD	472	831	0.568	469	1.8	10.096	B
C-D	0			0			
C-A	157			157			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	307	684	0.449	307	0.8	9.637	A
B-AD	11	346	0.032	11	0.0	10.731	B
A-BCD	0	461	0.000	0	0.0	0.000	A
A-B	28			28			
A-C	279			279			
D-ABC	0	338	0.000	0	0.0	0.000	A
C-ABD	473	832	0.569	473	1.8	10.277	B
C-D	0			0			
C-A	156			156			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	251	699	0.359	252	0.6	8.150	A
B-AD	9	398	0.023	9	0.0	9.248	A
A-BCD	0	488	0.000	0	0.0	0.000	A
A-B	22			22			
A-C	227			227			
D-ABC	0	370	0.000	0	0.0	0.000	A
C-ABD	346	796	0.435	349	1.1	8.261	A
C-D	0			0			
C-A	167			167			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	210	709	0.296	211	0.4	7.301	A
B-AD	8	434	0.017	8	0.0	8.449	A
A-BCD	0	509	0.000	0	0.0	0.000	A
A-B	19			19			
A-C	190			190			
D-ABC	0	393	0.000	0	0.0	0.000	A
C-ABD	267	770	0.347	269	0.7	7.318	A
C-D	0			0			
C-A	163			163			

2032 No Development, 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	Crossroads	Two-way		3.84	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 No Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	312	100.000
B - Jacktrees Road		✓	157	100.000
C - High Street West		✓	463	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	19	293	0
	B - Jacktrees Road	15	0	142	0
	C - High Street West	274	189	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	6	4	0
	B - Jacktrees Road	0	0	0	0
	C - High Street West	3	3	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.23	6.98	0.3	A
B-AD	0.04	9.54	0.0	A
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.44	8.48	1.1	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	107	701	0.153	106	0.2	6.044	A
B-AD	11	457	0.025	11	0.0	8.078	A
A-BCD	0	529	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	221			221			
D-ABC	0	411	0.000	0	0.0	0.000	A
C-ABD	198	735	0.269	196	0.5	6.869	A
C-D	0			0			
C-A	151			151			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	128	689	0.185	127	0.2	6.410	A
B-AD	13	431	0.031	13	0.0	8.632	A
A-BCD	0	513	0.000	0	0.0	0.000	A
A-B	17			17			
A-C	263			263			
D-ABC	0	393	0.000	0	0.0	0.000	A
C-ABD	253	753	0.336	252	0.7	7.408	A
C-D	0			0			
C-A	163			163			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	156	672	0.233	156	0.3	6.972	A
B-AD	17	394	0.042	16	0.0	9.530	A
A-BCD	0	491	0.000	0	0.0	0.000	A
A-B	21			21			
A-C	323			323			
D-ABC	0	367	0.000	0	0.0	0.000	A
C-ABD	341	780	0.437	339	1.1	8.426	A
C-D	0			0			
C-A	169			169			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	156	672	0.233	156	0.3	6.980	A
B-AD	17	394	0.042	17	0.0	9.542	A
A-BCD	0	490	0.000	0	0.0	0.000	A
A-B	21			21			
A-C	323			323			
D-ABC	0	367	0.000	0	0.0	0.000	A
C-ABD	341	780	0.437	341	1.1	8.484	A
C-D	0			0			
C-A	168			168			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	128	689	0.185	128	0.2	6.420	A
B-AD	13	430	0.031	14	0.0	8.648	A
A-BCD	0	512	0.000	0	0.0	0.000	A
A-B	17			17			
A-C	263			263			
D-ABC	0	392	0.000	0	0.0	0.000	A
C-ABD	254	754	0.337	255	0.7	7.475	A
C-D	0			0			
C-A	162			162			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	107	701	0.153	107	0.2	6.065	A
B-AD	11	456	0.025	11	0.0	8.098	A
A-BCD	0	529	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	221			221			
D-ABC	0	411	0.000	0	0.0	0.000	A
C-ABD	199	735	0.270	199	0.5	6.944	A
C-D	0			0			
C-A	150			150			

2032 No Development, 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	Crossroads	Two-way		6.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 No Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	296	100.000
B - Jacktrees Road		✓	308	100.000
C - High Street West		✓	607	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	27	269	0
	B - Jacktrees Road	11	0	297	0
	C - High Street West	354	253	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	0	2	0
	B - Jacktrees Road	0	0	1	0
	C - High Street West	2	1	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.48	10.32	0.9	B
B-AD	0.04	11.44	0.0	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.62	11.51	2.3	B
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	224	706	0.317	222	0.5	7.482	A
B-AD	8	424	0.020	8	0.0	8.655	A
A-BCD	0	503	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	203			203			
D-ABC	0	386	0.000	0	0.0	0.000	A
C-ABD	290	777	0.373	287	0.8	7.417	A
C-D	0			0			
C-A	167			167			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	267	695	0.384	266	0.6	8.475	A
B-AD	10	385	0.026	10	0.0	9.586	A
A-BCD	0	482	0.000	0	0.0	0.000	A
A-B	24			24			
A-C	242			242			
D-ABC	0	362	0.000	0	0.0	0.000	A
C-ABD	378	805	0.470	376	1.2	8.532	A
C-D	0			0			
C-A	168			168			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	327	679	0.482	326	0.9	10.257	B
B-AD	12	328	0.037	12	0.0	11.392	B
A-BCD	0	453	0.000	0	0.0	0.000	A
A-B	30			30			
A-C	296			296			
D-ABC	0	328	0.000	0	0.0	0.000	A
C-ABD	521	844	0.618	517	2.2	11.209	B
C-D	0			0			
C-A	147			147			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	327	679	0.482	327	0.9	10.325	B
B-AD	12	327	0.037	12	0.0	11.439	B
A-BCD	0	452	0.000	0	0.0	0.000	A
A-B	30			30			
A-C	296			296			
D-ABC	0	327	0.000	0	0.0	0.000	A
C-ABD	523	845	0.619	523	2.3	11.509	B
C-D	0			0			
C-A	145			145			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	267	695	0.384	268	0.6	8.549	A
B-AD	10	384	0.026	10	0.0	9.635	A
A-BCD	0	480	0.000	0	0.0	0.000	A
A-B	24			24			
A-C	242			242			
D-ABC	0	361	0.000	0	0.0	0.000	A
C-ABD	380	807	0.471	384	1.3	8.778	A
C-D	0			0			
C-A	166			166			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	224	706	0.317	224	0.5	7.563	A
B-AD	8	422	0.020	8	0.0	8.692	A
A-BCD	0	502	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	203			203			
D-ABC	0	385	0.000	0	0.0	0.000	A
C-ABD	292	778	0.375	293	0.8	7.580	A
C-D	0			0			
C-A	165			165			

2032 With Development, 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	Crossroads	Two-way		4.37	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 With Development	AM	ONE HOUR	08:00	09:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	319	100.000
B - Jacktrees Road		✓	200	100.000
C - High Street West		✓	479	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	19	300	0
	B - Jacktrees Road	15	0	185	0
	C - High Street West	277	202	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	6	4	0
	B - Jacktrees Road	0	0	0	0
	C - High Street West	3	3	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.30	7.72	0.4	A
B-AD	0.04	9.87	0.0	A
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.47	9.00	1.2	A
C-D				
C-A				

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	139	700	0.199	138	0.2	6.403	A
B-AD	11	450	0.025	11	0.0	8.197	A
A-BCD	0	526	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	226			226			
D-ABC	0	407	0.000	0	0.0	0.000	A
C-ABD	212	735	0.289	210	0.5	7.049	A
C-D	0			0			
C-A	148			148			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	166	687	0.242	166	0.3	6.904	A
B-AD	13	422	0.032	13	0.0	8.817	A
A-BCD	0	509	0.000	0	0.0	0.000	A
A-B	17			17			
A-C	270			270			
D-ABC	0	387	0.000	0	0.0	0.000	A
C-ABD	272	754	0.361	271	0.8	7.683	A
C-D	0			0			
C-A	159			159			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	204	670	0.304	203	0.4	7.706	A
B-AD	17	382	0.043	16	0.0	9.858	A
A-BCD	0	486	0.000	0	0.0	0.000	A
A-B	21			21			
A-C	330			330			
D-ABC	0	360	0.000	0	0.0	0.000	A
C-ABD	367	781	0.469	365	1.2	8.923	A
C-D	0			0			
C-A	161			161			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	204	670	0.304	204	0.4	7.721	A
B-AD	17	381	0.043	17	0.0	9.873	A
A-BCD	0	485	0.000	0	0.0	0.000	A
A-B	21			21			
A-C	330			330			
D-ABC	0	360	0.000	0	0.0	0.000	A
C-ABD	367	782	0.470	367	1.2	9.001	A
C-D	0			0			
C-A	160			160			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	166	687	0.242	167	0.3	6.922	A
B-AD	13	421	0.032	14	0.0	8.837	A
A-BCD	0	508	0.000	0	0.0	0.000	A
A-B	17			17			
A-C	270			270			
D-ABC	0	387	0.000	0	0.0	0.000	A
C-ABD	273	755	0.361	275	0.8	7.770	A
C-D	0			0			
C-A	158			158			

09:15 - 09:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	139	700	0.199	140	0.3	6.433	A
B-AD	11	449	0.025	11	0.0	8.219	A
A-BCD	0	525	0.000	0	0.0	0.000	A
A-B	14			14			
A-C	226			226			
D-ABC	0	406	0.000	0	0.0	0.000	A
C-ABD	213	736	0.290	214	0.5	7.131	A
C-D	0			0			
C-A	147			147			

2032 With Development, 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	Crossroads	Two-way		9.40	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 With Development	PM	ONE HOUR	17:00	18:30	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - High Street		✓	298	100.000
B - Jacktrees Road		✓	317	100.000
C - High Street West		✓	660	100.000
D - North Street		✓	0	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	27	271	0
	B - Jacktrees Road	11	0	306	0
	C - High Street West	362	298	0	0
	D - North Street	0	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		A - High Street	B - Jacktrees Road	C - High Street West	D - North Street
	A - High Street	0	0	2	0
	B - Jacktrees Road	0	0	1	0
	C - High Street West	2	1	0	0
	D - North Street	0	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-CD	0.50	10.65	1.0	B
B-AD	0.04	12.25	0.0	B
A-BCD	0.00	0.00	0.0	A
A-B				
A-C				
D-ABC	0.00	0.00	0.0	A
C-ABD	0.74	16.62	3.8	C
C-D				
C-A				

Main Results for each time segment

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	230	705	0.327	228	0.5	7.593	A
B-AD	8	411	0.020	8	0.0	8.932	A
A-BCD	0	493	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	204			204			
D-ABC	0	379	0.000	0	0.0	0.000	A
C-ABD	345	781	0.441	341	1.0	8.248	A
C-D	0			0			
C-A	152			152			

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	275	694	0.396	274	0.7	8.650	A
B-AD	10	369	0.027	10	0.0	10.015	B
A-BCD	0	469	0.000	0	0.0	0.000	A
A-B	24			24			
A-C	244			244			
D-ABC	0	353	0.000	0	0.0	0.000	A
C-ABD	450	810	0.556	448	1.7	10.106	B
C-D	0			0			
C-A	143			143			

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	337	678	0.497	336	1.0	10.574	B
B-AD	12	308	0.039	12	0.0	12.161	B
A-BCD	0	436	0.000	0	0.0	0.000	A
A-B	30			30			
A-C	298			298			
D-ABC	0	316	0.000	0	0.0	0.000	A
C-ABD	623	850	0.734	616	3.6	15.568	C
C-D	0			0			
C-A	103			103			

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	337	678	0.497	337	1.0	10.653	B
B-AD	12	306	0.040	12	0.0	12.247	B
A-BCD	0	434	0.000	0	0.0	0.000	A
A-B	30			30			
A-C	298			298			
D-ABC	0	314	0.000	0	0.0	0.000	A
C-ABD	627	852	0.736	627	3.8	16.618	C
C-D	0			0			
C-A	99			99			

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	275	694	0.396	276	0.7	8.731	A
B-AD	10	366	0.027	10	0.0	10.101	B
A-BCD	0	466	0.000	0	0.0	0.000	A
A-B	24			24			
A-C	244			244			
D-ABC	0	350	0.000	0	0.0	0.000	A
C-ABD	455	813	0.559	462	1.8	10.747	B
C-D	0			0			
C-A	139			139			

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-CD	230	705	0.327	231	0.5	7.677	A
B-AD	8	409	0.020	8	0.0	8.989	A
A-BCD	0	491	0.000	0	0.0	0.000	A
A-B	20			20			
A-C	204			204			
D-ABC	0	377	0.000	0	0.0	0.000	A
C-ABD	347	783	0.443	350	1.1	8.530	A
C-D	0			0			
C-A	150			150			

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.5.1.7462 © Copyright TRL Limited, 2019							
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The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution							

Filename: Toll Bar Rtb.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 10 - A595 TollBar Roundabout

Report generation date: 03/03/2022 09:02:50

»2022 Base, AM
 »2022 Base, PM
 »2032 Base, AM
 »2032 Base, PM
 »2032 Base + Development, AM
 »2032 Base + Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2022 Base							
A - A597N	D1	0.6	4.12	0.36	D2	1.0	5.53	0.49
B - A595E		1.9	5.25	0.65		1.4	4.49	0.59
C - Winscales Avenue		0.0	5.31	0.02		0.1	5.38	0.05
D - B5306		0.8	7.25	0.45		0.6	5.98	0.37
E - A595W		0.9	3.52	0.48		1.3	3.89	0.56
	2032 Base							
A - A597N	D3	0.7	4.50	0.39	D4	1.2	6.42	0.54
B - A595E		2.4	6.21	0.70		1.8	5.15	0.64
C - Winscales Avenue		0.0	5.81	0.02		0.1	5.89	0.06
D - B5306		1.1	8.60	0.51		0.7	6.77	0.41
E - A595W		1.1	3.89	0.52		1.5	4.41	0.60
	2032 Base + Development							
A - A597N	D5	0.8	4.94	0.44	D6	1.3	6.60	0.55
B - A595E		2.6	6.68	0.72		1.8	5.21	0.64
C - Winscales Avenue		0.0	6.17	0.02		0.1	5.96	0.06
D - B5306		1.2	9.42	0.53		0.7	6.87	0.42
E - A595W		1.2	3.98	0.53		1.8	4.84	0.64

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

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

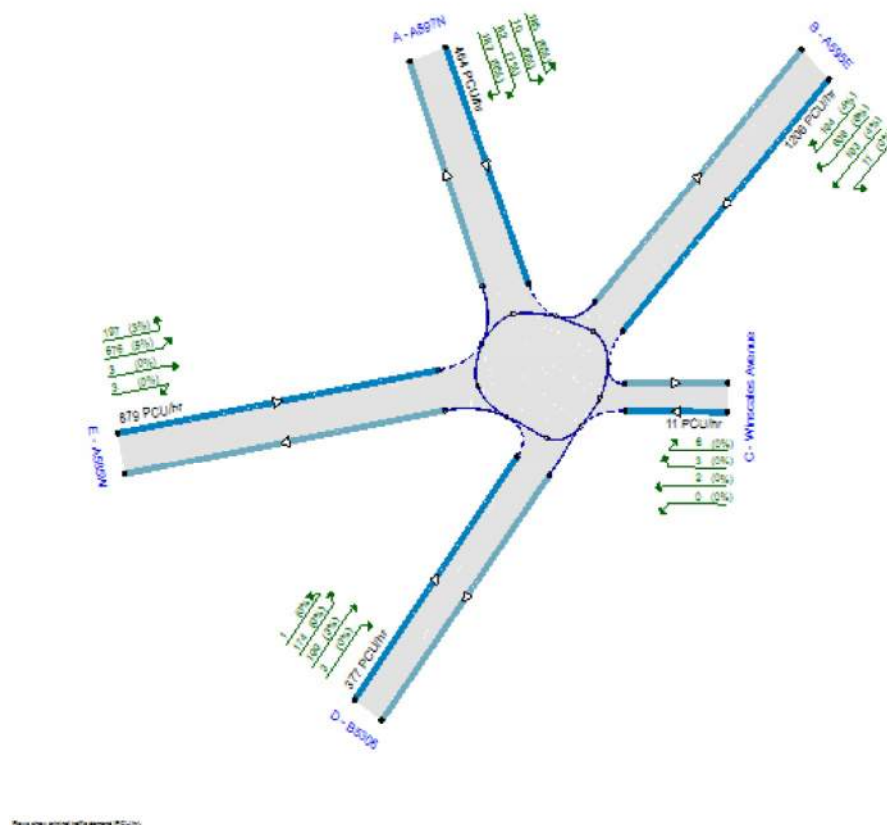
File summary

File Description

Title	A595 TollBar Roundabout
Location	A595/A597/Windscales Ave/B5306
Site number	
Date	02/03/2022
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\NASSER.JAMILI
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	PCU	PCU	perHour	s	-Min	perMin



Flow rates are given in PCU/hr

The junction diagram reflects the last run of Junctions.

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15	✓
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2022 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	4.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
A	A597N	
B	A595E	
C	Winscales Avenue	
D	B5306	
E	A595W	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
A - A597N	3.70	7.50	35.0	20.0	68.0	28.5	
B - A595E	7.20	8.90	3.4	17.5	68.0	45.5	
C - Winscales Avenue	3.65	5.80	6.4	22.5	68.0	19.0	
D - B5306	3.75	7.20	7.2	25.2	68.0	27.0	
E - A595W	7.70	7.70	0.0	30.0	68.0	20.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
A - A597N	0.562	1986
B - A595E	0.585	2233
C - Winscales Avenue	0.490	1482
D - B5306	0.501	1581
E - A595W	0.646	2448

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	2022 Base	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	464	100.000
B - A595E		ONE HOUR	✓	1206	100.000

C - Winscales Avenue		ONE HOUR	✓	11	100.000
D - B5306		ONE HOUR	✓	377	100.000
E - A595W		ONE HOUR	✓	879	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
	A - A597N	0	185	10	82	187
	B - A595E	194	0	11	193	808
	C - Winscales Avenue	3	6	0	0	2
	D - B5306	174	199	3	0	1
	E - A595W	197	676	3	3	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
From		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
	A - A597N	4	6	0	1	9
	B - A595E	4	0	0	4	6
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	3	0	0	0
	E - A595W	3	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.36	4.12	0.6	A	426	639
B - A595E	0.65	5.25	1.9	A	1107	1660
C - Winscales Avenue	0.02	5.31	0.0	A	10	15
D - B5306	0.45	7.25	0.8	A	346	519
E - A595W	0.48	3.52	0.9	A	807	1210

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	349	87	668	1611	0.217	348	426	0.0	0.3	3.017	A
B - A595E	908	227	216	2107	0.431	905	800	0.0	0.8	3.140	A
C - Winscales Avenue	8	2	1101	942	0.009	8	20	0.0	0.0	3.856	A
D - B5306	284	71	900	1130	0.251	282	209	0.0	0.3	4.309	A
E - A595W	662	165	434	2167	0.305	660	749	0.0	0.5	2.494	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	417	104	799	1537	0.271	417	510	0.3	0.4	3.404	A
B - A595E	1084	271	259	2082	0.521	1083	957	0.8	1.1	3.782	A
C - Winscales Avenue	10	2	1317	836	0.012	10	24	0.0	0.0	4.360	A
D - B5306	339	85	1077	1041	0.325	338	250	0.3	0.5	5.199	A
E - A595W	790	198	520	2112	0.374	790	896	0.5	0.6	2.846	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	511	128	978	1436	0.356	510	624	0.4	0.6	4.113	A
B - A595E	1328	332	317	2048	0.648	1325	1172	1.1	1.9	5.211	A

C - Winscales Avenue	12	3	1612	691	0.018	12	30	0.0	0.0	5.301	A
D - B5306	415	104	1318	921	0.451	414	305	0.5	0.8	7.196	A
E - A595W	968	242	636	2037	0.475	967	1096	0.6	0.9	3.512	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	511	128	980	1435	0.356	511	625	0.6	0.6	4.124	A
B - A595E	1328	332	317	2048	0.648	1328	1174	1.9	1.9	5.255	A
C - Winscales Avenue	12	3	1615	690	0.018	12	30	0.0	0.0	5.314	A
D - B5306	415	104	1321	919	0.452	415	306	0.8	0.8	7.253	A
E - A595W	968	242	637	2036	0.475	968	1099	0.9	0.9	3.524	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	417	104	802	1535	0.272	418	512	0.6	0.4	3.416	A
B - A595E	1084	271	259	2082	0.521	1087	960	1.9	1.2	3.816	A
C - Winscales Avenue	10	2	1322	833	0.012	10	24	0.0	0.0	4.373	A
D - B5306	339	85	1082	1039	0.326	340	251	0.8	0.5	5.244	A
E - A595W	790	198	522	2110	0.374	791	900	0.9	0.6	2.857	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	349	87	671	1609	0.217	350	428	0.4	0.3	3.031	A
B - A595E	908	227	217	2106	0.431	909	804	1.2	0.8	3.166	A
C - Winscales Avenue	8	2	1106	939	0.009	8	20	0.0	0.0	3.869	A
D - B5306	284	71	905	1128	0.252	284	210	0.5	0.3	4.342	A
E - A595W	662	165	437	2166	0.306	662	752	0.6	0.5	2.507	A

2022 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	4.64	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	578	100.000
B - A595E		ONE HOUR	✓	1059	100.000
C - Winscales Avenue		ONE HOUR	✓	35	100.000
D - B5306		ONE HOUR	✓	318	100.000
E - A595W		ONE HOUR	✓	1075	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	0	193	5	133	247
	B - A595E	115	0	8	190	746
	C - Winscales Avenue	12	15	0	6	2
	D - B5306	99	214	1	0	4
	E - A595W	210	858	5	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	6	2	0	2	5
	B - A595E	2	0	0	1	2
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	1	0	0	0
	E - A595W	2	2	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.49	5.53	1.0	A	530	796
B - A595E	0.59	4.49	1.4	A	972	1458
C - Winscales Avenue	0.05	5.38	0.1	A	32	48
D - B5306	0.37	5.98	0.6	A	292	438
E - A595W	0.56	3.89	1.3	A	986	1480

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	435	109	822	1524	0.285	434	327	0.0	0.4	3.404	A
B - A595E	797	199	295	2061	0.387	795	961	0.0	0.6	2.878	A
C - Winscales Avenue	26	7	1075	955	0.028	26	14	0.0	0.0	3.878	A
D - B5306	239	60	853	1154	0.208	238	248	0.0	0.3	3.945	A
E - A595W	809	202	342	2227	0.363	807	750	0.0	0.6	2.569	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	520	130	983	1433	0.362	519	392	0.4	0.6	4.062	A
B - A595E	952	238	353	2027	0.470	951	1149	0.6	0.9	3.392	A
C - Winscales Avenue	31	8	1287	851	0.037	31	17	0.0	0.0	4.393	A
D - B5306	286	71	1021	1070	0.267	285	297	0.3	0.4	4.608	A
E - A595W	966	242	409	2183	0.443	966	897	0.6	0.8	2.999	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	636	159	1204	1310	0.486	635	479	0.6	1.0	5.495	A
B - A595E	1166	291	432	1981	0.589	1164	1407	0.9	1.4	4.459	A
C - Winscales Avenue	39	10	1575	710	0.054	38	21	0.0	0.1	5.363	A
D - B5306	350	88	1249	955	0.367	349	364	0.4	0.6	5.956	A
E - A595W	1184	296	501	2124	0.557	1182	1098	0.8	1.3	3.869	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	636	159	1206	1309	0.486	636	480	1.0	1.0	5.529	A
B - A595E	1166	291	433	1980	0.589	1166	1409	1.4	1.4	4.486	A
C - Winscales Avenue	39	10	1578	708	0.054	39	21	0.1	0.1	5.375	A
D - B5306	350	88	1252	954	0.367	350	364	0.6	0.6	5.984	A
E - A595W	1184	296	502	2123	0.557	1184	1100	1.3	1.3	3.887	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	520	130	986	1432	0.363	521	393	1.0	0.6	4.088	A
B - A595E	952	238	354	2026	0.470	954	1153	1.4	0.9	3.413	A
C - Winscales Avenue	31	8	1291	849	0.037	32	17	0.1	0.0	4.408	A
D - B5306	286	71	1025	1068	0.268	287	298	0.6	0.4	4.634	A
E - A595W	966	242	411	2182	0.443	968	900	1.3	0.8	3.013	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	435	109	825	1522	0.286	436	329	0.6	0.4	3.425	A
B - A595E	797	199	296	2060	0.387	798	965	0.9	0.6	2.899	A
C - Winscales Avenue	26	7	1080	952	0.028	26	14	0.0	0.0	3.889	A
D - B5306	239	60	857	1152	0.208	240	250	0.4	0.3	3.965	A
E - A595W	809	202	344	2226	0.364	810	753	0.8	0.6	2.584	A

2032 Base, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.55	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2032 Base	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	495	100.000
B - A595E		ONE HOUR	✓	1295	100.000
C - Winscales Avenue		ONE HOUR	✓	12	100.000
D - B5306		ONE HOUR	✓	405	100.000
E - A595W		ONE HOUR	✓	944	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	0	198	11	86	200
	B - A595E	208	0	12	207	868
	C - Winscales Avenue	3	7	0	0	2
	D - B5306	187	214	3	0	1
	E - A595W	212	726	3	3	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	4	6	0	1	9
	B - A595E	4	0	0	4	6
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	3	0	0	0
	E - A595W	3	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.39	4.50	0.7	A	454	681
B - A595E	0.70	6.21	2.4	A	1188	1782
C - Winscales Avenue	0.02	5.81	0.0	A	11	17
D - B5306	0.51	8.60	1.1	A	372	557
E - A595W	0.52	3.89	1.1	A	866	1299

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	373	93	717	1583	0.235	371	457	0.0	0.3	3.151	A
B - A595E	975	244	230	2099	0.464	971	859	0.0	0.9	3.350	A
C - Winscales Avenue	9	2	1179	904	0.010	9	22	0.0	0.0	4.024	A
D - B5306	305	76	966	1097	0.278	303	222	0.0	0.4	4.599	A
E - A595W	711	178	466	2147	0.331	709	803	0.0	0.5	2.613	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	445	111	858	1504	0.296	445	548	0.3	0.4	3.605	A
B - A595E	1164	291	275	2073	0.562	1162	1028	0.9	1.3	4.157	A
C - Winscales Avenue	11	3	1411	790	0.014	11	26	0.0	0.0	4.620	A
D - B5306	364	91	1156	1002	0.363	363	266	0.4	0.6	5.717	A
E - A595W	849	212	558	2087	0.407	848	961	0.5	0.7	3.034	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	545	136	1050	1396	0.390	544	670	0.4	0.7	4.481	A
B - A595E	1426	356	336	2037	0.700	1422	1258	1.3	2.4	6.121	A
C - Winscales Avenue	13	3	1726	635	0.021	13	32	0.0	0.0	5.785	A
D - B5306	446	111	1414	873	0.511	444	325	0.6	1.0	8.492	A
E - A595W	1039	260	682	2007	0.518	1038	1176	0.7	1.1	3.875	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	545	136	1053	1395	0.391	545	672	0.7	0.7	4.496	A
B - A595E	1426	356	337	2036	0.700	1426	1261	2.4	2.4	6.207	A
C - Winscales Avenue	13	3	1731	633	0.021	13	32	0.0	0.0	5.806	A
D - B5306	446	111	1418	871	0.512	446	326	1.0	1.1	8.601	A
E - A595W	1039	260	685	2005	0.518	1039	1179	1.1	1.1	3.894	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	445	111	862	1502	0.296	446	550	0.7	0.4	3.623	A
B - A595E	1164	291	276	2072	0.562	1168	1032	2.4	1.4	4.214	A
C - Winscales Avenue	11	3	1418	786	0.014	11	26	0.0	0.0	4.640	A
D - B5306	364	91	1162	999	0.364	366	267	1.1	0.6	5.791	A
E - A595W	849	212	562	2085	0.407	850	966	1.1	0.7	3.050	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	373	93	721	1581	0.236	373	460	0.4	0.3	3.166	A
B - A595E	975	244	231	2098	0.465	977	863	1.4	0.9	3.386	A
C - Winscales Avenue	9	2	1186	900	0.010	9	22	0.0	0.0	4.038	A
D - B5306	305	76	971	1094	0.279	306	223	0.6	0.4	4.639	A
E - A595W	711	178	469	2145	0.331	711	808	0.7	0.5	2.628	A

2032 Base, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.31	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2032 Base	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	620	100.000
B - A595E		ONE HOUR	✓	1135	100.000
C - Winscales Avenue		ONE HOUR	✓	38	100.000
D - B5306		ONE HOUR	✓	340	100.000
E - A595W		ONE HOUR	✓	1151	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	0	207	6	142	265
	B - A595E	124	0	9	204	798
	C - Winscales Avenue	13	16	0	7	2
	D - B5306	106	229	1	0	4
	E - A595W	225	918	6	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	6	2	0	2	5
	B - A595E	2	0	0	1	2
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	1	0	0	0
	E - A595W	2	2	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.54	6.42	1.2	A	569	853
B - A595E	0.64	5.15	1.8	A	1041	1562
C - Winscales Avenue	0.06	5.89	0.1	A	35	52
D - B5306	0.41	6.77	0.7	A	312	468
E - A595W	0.60	4.41	1.5	A	1056	1584

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	467	117	879	1492	0.313	465	351	0.0	0.5	3.613	A
B - A595E	854	214	316	2048	0.417	852	1028	0.0	0.7	3.055	A
C - Winscales Avenue	29	7	1152	917	0.031	28	17	0.0	0.0	4.051	A
D - B5306	256	64	914	1123	0.228	255	266	0.0	0.3	4.168	A
E - A595W	867	217	367	2211	0.392	864	802	0.0	0.7	2.721	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	557	139	1052	1395	0.400	557	420	0.5	0.7	4.429	A
B - A595E	1020	255	379	2012	0.507	1019	1230	0.7	1.0	3.687	A
C - Winscales Avenue	34	9	1378	806	0.042	34	20	0.0	0.0	4.663	A
D - B5306	306	76	1094	1033	0.296	305	319	0.3	0.4	4.974	A
E - A595W	1035	259	439	2164	0.478	1034	960	0.7	0.9	3.244	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	683	171	1288	1263	0.541	681	514	0.7	1.2	6.363	A
B - A595E	1250	312	463	1962	0.637	1247	1505	1.0	1.8	5.102	A
C - Winscales Avenue	42	10	1686	655	0.064	42	24	0.0	0.1	5.869	A
D - B5306	374	94	1338	911	0.411	373	390	0.4	0.7	6.726	A
E - A595W	1267	317	537	2101	0.603	1265	1174	0.9	1.5	4.379	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	683	171	1290	1261	0.541	683	515	1.2	1.2	6.425	A
B - A595E	1250	312	465	1961	0.637	1250	1508	1.8	1.8	5.148	A
C - Winscales Avenue	42	10	1690	653	0.064	42	24	0.1	0.1	5.888	A
D - B5306	374	94	1341	909	0.412	374	391	0.7	0.7	6.773	A
E - A595W	1267	317	538	2100	0.603	1267	1177	1.5	1.5	4.408	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	557	139	1056	1393	0.400	559	422	1.2	0.7	4.471	A
B - A595E	1020	255	381	2011	0.508	1023	1235	1.8	1.1	3.721	A
C - Winscales Avenue	34	9	1384	803	0.043	34	20	0.1	0.0	4.684	A
D - B5306	306	76	1098	1031	0.297	307	320	0.7	0.4	5.013	A
E - A595W	1035	259	441	2163	0.478	1037	964	1.5	0.9	3.267	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	467	117	884	1490	0.313	468	353	0.7	0.5	3.639	A
B - A595E	854	214	318	2047	0.417	856	1033	1.1	0.7	3.081	A
C - Winscales Avenue	29	7	1157	914	0.031	29	17	0.0	0.0	4.066	A
D - B5306	256	64	918	1121	0.228	256	268	0.4	0.3	4.196	A
E - A595W	867	217	369	2210	0.392	868	806	0.9	0.7	2.739	A

2032 Base + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.91	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2032 Base + Development	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	562	100.000
B - A595E		ONE HOUR	✓	1295	100.000
C - Winscales Avenue		ONE HOUR	✓	12	100.000
D - B5306		ONE HOUR	✓	405	100.000
E - A595W		ONE HOUR	✓	963	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	0	198	11	86	267
	B - A595E	208	0	12	207	868
	C - Winscales Avenue	3	7	0	0	2
	D - B5306	187	214	3	0	1
	E - A595W	231	726	3	3	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	4	6	0	1	9
	B - A595E	4	0	0	4	6
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	3	0	0	0
	E - A595W	3	5	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.44	4.94	0.8	A	516	774
B - A595E	0.72	6.68	2.6	A	1188	1782
C - Winscales Avenue	0.02	6.17	0.0	A	11	17
D - B5306	0.53	9.42	1.2	A	372	557
E - A595W	0.53	3.98	1.2	A	884	1325

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	423	106	717	1583	0.267	422	472	0.0	0.4	3.295	A
B - A595E	975	244	280	2070	0.471	971	859	0.0	0.9	3.440	A
C - Winscales Avenue	9	2	1229	879	0.010	9	22	0.0	0.0	4.137	A
D - B5306	305	76	1016	1072	0.284	303	222	0.0	0.4	4.747	A
E - A595W	725	181	466	2147	0.338	723	854	0.0	0.5	2.638	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	505	126	858	1504	0.336	505	565	0.4	0.5	3.834	A
B - A595E	1164	291	335	2037	0.571	1162	1028	0.9	1.4	4.323	A
C - Winscales Avenue	11	3	1471	760	0.014	11	26	0.0	0.0	4.802	A
D - B5306	364	91	1216	972	0.375	363	266	0.4	0.6	6.001	A
E - A595W	866	216	558	2087	0.415	865	1022	0.5	0.7	3.075	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	619	155	1050	1396	0.443	618	690	0.5	0.8	4.915	A
B - A595E	1426	356	410	1993	0.715	1421	1258	1.4	2.6	6.567	A
C - Winscales Avenue	13	3	1799	600	0.022	13	32	0.0	0.0	6.138	A
D - B5306	446	111	1487	836	0.533	444	325	0.6	1.1	9.269	A
E - A595W	1060	265	682	2007	0.528	1059	1249	0.7	1.2	3.957	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	619	155	1053	1395	0.444	619	692	0.8	0.8	4.939	A
B - A595E	1426	356	411	1993	0.715	1426	1261	2.6	2.6	6.677	A
C - Winscales Avenue	13	3	1804	597	0.022	13	32	0.0	0.0	6.166	A
D - B5306	446	111	1492	834	0.535	446	326	1.1	1.2	9.418	A
E - A595W	1060	265	685	2005	0.529	1060	1253	1.2	1.2	3.979	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	505	126	862	1502	0.336	506	568	0.8	0.5	3.856	A
B - A595E	1164	291	336	2037	0.572	1169	1032	2.6	1.4	4.391	A
C - Winscales Avenue	11	3	1479	757	0.014	11	26	0.0	0.0	4.828	A
D - B5306	364	91	1223	969	0.376	366	267	1.2	0.6	6.092	A
E - A595W	866	216	562	2085	0.415	867	1027	1.2	0.7	3.093	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	423	106	721	1581	0.268	424	474	0.5	0.4	3.315	A
B - A595E	975	244	281	2069	0.471	977	863	1.4	0.9	3.476	A
C - Winscales Avenue	9	2	1236	876	0.010	9	22	0.0	0.0	4.154	A
D - B5306	305	76	1022	1069	0.285	306	223	0.6	0.4	4.796	A
E - A595W	725	181	469	2145	0.338	726	858	0.7	0.5	2.654	A

2032 Base + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	A - A597N - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		A, B, C, D, E	5.51	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
A - A597N		ONE HOUR	✓	634	100.000
B - A595E		ONE HOUR	✓	1135	100.000
C - Winscales Avenue		ONE HOUR	✓	38	100.000
D - B5306		ONE HOUR	✓	340	100.000
E - A595W		ONE HOUR	✓	1218	100.000

Origin-Destination Data

Demand (PCU/hr)

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	0	207	6	142	279
	B - A595E	124	0	9	204	798
	C - Winscales Avenue	13	16	0	7	2
	D - B5306	106	229	1	0	4
	E - A595W	292	918	6	2	0

Vehicle Mix

Heavy Vehicle Percentages

	To					
		A - A597N	B - A595E	C - Winscales Avenue	D - B5306	E - A595W
From	A - A597N	6	2	0	2	5
	B - A595E	2	0	0	1	2
	C - Winscales Avenue	0	0	0	0	0
	D - B5306	0	1	0	0	0
	E - A595W	2	2	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
A - A597N	0.55	6.60	1.3	A	582	873
B - A595E	0.64	5.21	1.8	A	1041	1562
C - Winscales Avenue	0.06	5.96	0.1	A	35	52
D - B5306	0.42	6.87	0.7	A	312	468
E - A595W	0.64	4.84	1.8	A	1118	1676

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	477	119	879	1492	0.320	475	401	0.0	0.5	3.652	A
B - A595E	854	214	327	2042	0.418	852	1028	0.0	0.7	3.070	A
C - Winscales Avenue	29	7	1162	912	0.031	28	17	0.0	0.0	4.074	A
D - B5306	256	64	924	1118	0.229	255	266	0.0	0.3	4.194	A
E - A595W	917	229	367	2211	0.415	914	812	0.0	0.7	2.825	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	570	142	1052	1395	0.409	569	480	0.5	0.7	4.498	A
B - A595E	1020	255	391	2004	0.509	1019	1230	0.7	1.0	3.714	A
C - Winscales Avenue	34	9	1391	800	0.043	34	20	0.0	0.0	4.701	A
D - B5306	306	76	1106	1027	0.298	305	319	0.3	0.4	5.018	A
E - A595W	1095	274	439	2164	0.506	1094	972	0.7	1.0	3.424	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	698	175	1287	1263	0.553	696	588	0.7	1.3	6.534	A
B - A595E	1250	312	479	1953	0.640	1247	1505	1.0	1.8	5.165	A
C - Winscales Avenue	42	10	1701	648	0.065	42	24	0.0	0.1	5.941	A
D - B5306	374	94	1353	903	0.414	373	390	0.4	0.7	6.823	A
E - A595W	1341	335	537	2101	0.638	1338	1189	1.0	1.8	4.795	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	698	175	1290	1261	0.554	698	589	1.3	1.3	6.603	A
B - A595E	1250	312	480	1952	0.640	1250	1508	1.8	1.8	5.214	A
C - Winscales Avenue	42	10	1705	646	0.065	42	24	0.1	0.1	5.962	A
D - B5306	374	94	1356	902	0.415	374	391	0.7	0.7	6.872	A
E - A595W	1341	335	538	2100	0.639	1341	1192	1.8	1.8	4.837	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	570	142	1057	1392	0.409	572	482	1.3	0.7	4.544	A
B - A595E	1020	255	393	2003	0.509	1023	1235	1.8	1.1	3.753	A
C - Winscales Avenue	34	9	1397	797	0.043	34	20	0.1	0.0	4.722	A
D - B5306	306	76	1111	1025	0.298	307	320	0.7	0.4	5.056	A
E - A595W	1095	274	441	2163	0.506	1098	977	1.8	1.1	3.458	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
A - A597N	477	119	884	1489	0.320	478	403	0.7	0.5	3.682	A
B - A595E	854	214	329	2041	0.419	856	1033	1.1	0.7	3.097	A
C - Winscales Avenue	29	7	1168	909	0.031	29	17	0.0	0.0	4.089	A
D - B5306	256	64	929	1116	0.229	256	268	0.4	0.3	4.222	A
E - A595W	917	229	369	2210	0.415	918	817	1.1	0.7	2.845	A

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.1.7462 © Copyright TRL Limited, 2019			
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Filename: 3. A595 Howgate Roundabout - normal Junction 9.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 11 - A595 Howgate Roundabout

Report generation date: 02/03/2022 16:56:24

»2022 Base, AM
 »2022 Base, PM
 »2032 Base, AM
 »2032 Base, PM
 »2032 Base With Dev, AM
 »2032 Base With Dev, PM
 »2032 Base With Dev With ID 43, AM
 »2032 Base With Dev With ID 43, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2022 Base							
1 - B5306	D1	0.0	3.99	0.02	D2	0.0	3.80	0.03
2 - Low Moresby		0.0	0.00	0.00		0.1	5.59	0.10
3 - A595 SW		1.5	5.38	0.59		2.1	6.88	0.68
4 - A595 NE		0.8	2.68	0.44		0.8	2.55	0.44
	2032 Base							
1 - B5306	D3	0.0	4.16	0.02	D4	0.0	3.98	0.03
2 - Low Moresby		0.0	0.00	0.00		0.1	5.99	0.12
3 - A595 SW		1.8	6.03	0.63		2.7	8.09	0.73
4 - A595 NE		0.9	2.84	0.47		0.9	2.69	0.47
	2032 Base With Dev							
1 - B5306	D5	0.0	4.33	0.02	D6	0.0	4.02	0.03
2 - Low Moresby		0.0	0.00	0.00		0.1	6.06	0.12
3 - A595 SW		1.9	6.25	0.64		3.4	9.66	0.77
4 - A595 NE		1.0	3.00	0.50		0.9	2.72	0.47
	2032 Base With Dev With ID 43							
1 - B5306	D7	0.0	4.33	0.02	D8	0.0	4.02	0.03
2 - Low Moresby		0.3	8.75	0.16		0.4	7.17	0.25
3 - A595 SW		2.1	6.92	0.67		3.9	11.16	0.80
4 - A595 NE		1.0	3.00	0.50		0.9	2.72	0.47

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

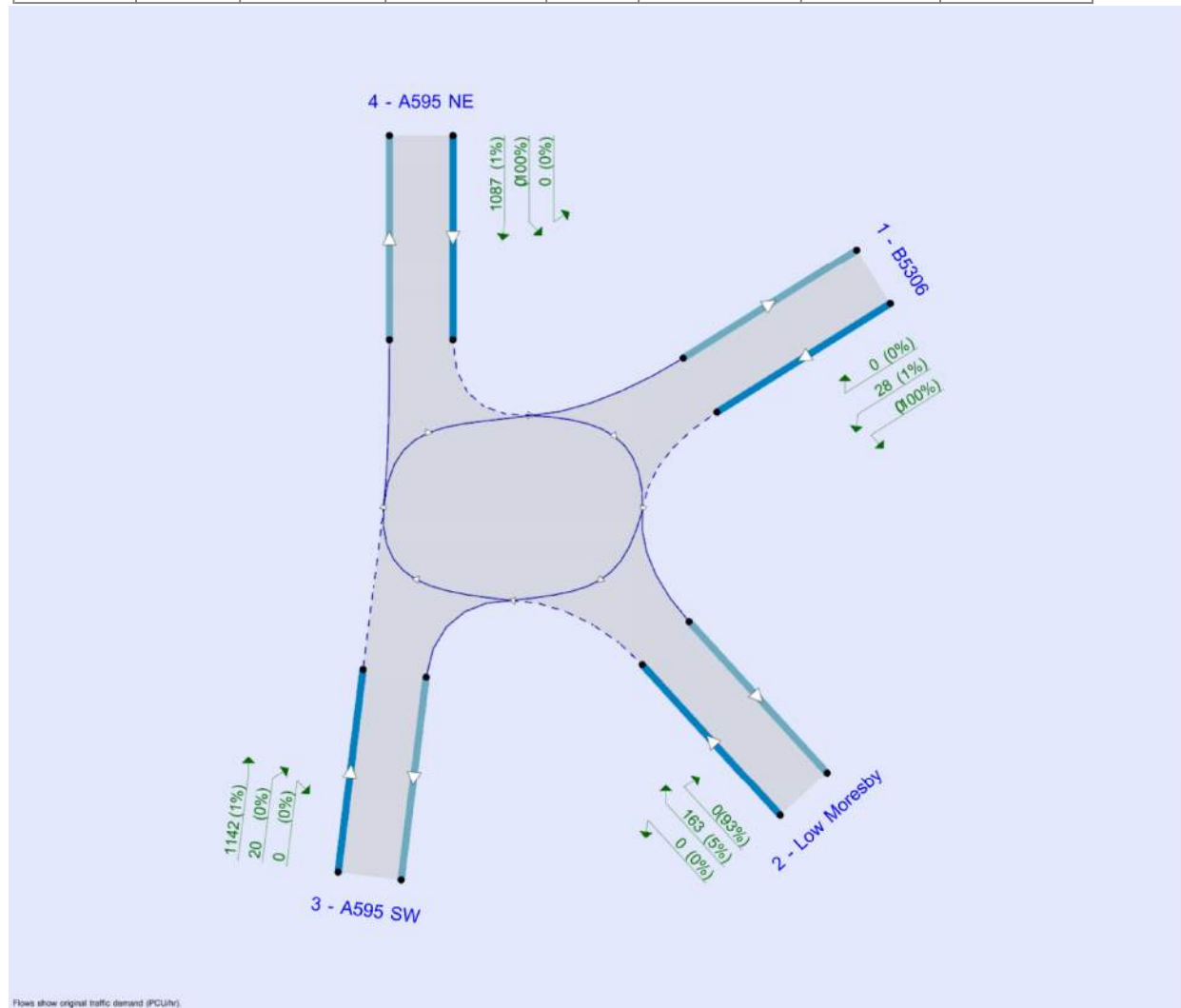
File summary

File Description

Title	A595 Howgate Roundabout
Location	A595/B5306/Low Moresby
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TTNASSER.JAMILI
Description	

Units

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



Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15	✓
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15	✓
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15	✓
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15	✓
D5	2032 Base With Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2032 Base With Dev	PM	ONE HOUR	16:45	18:15	15	✓
D7	2032 Base With Dev With ID 43	AM	ONE HOUR	07:45	09:15	15	✓
D8	2032 Base With Dev With ID 43	PM	ONE HOUR	16:45	18:15	15	✓

Analysis Set Details

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

2022 Base, 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	3.97	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	B5306	
2	Low Moresby	
3	A595 SW	
4	A595 NE	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - B5306	3.80	6.70	9.2	15.0	64.2	36.0	
2 - Low Moresby	2.60	6.50	8.3	21.0	64.2	25.5	
3 - A595 SW	3.80	7.80	12.6	20.0	64.2	39.0	
4 - A595 NE	8.40	8.40	0.0	21.0	64.2	30.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B5306	0.496	1530
2 - Low Moresby	0.469	1282
3 - A595 SW	0.526	1698
4 - A595 NE	0.675	2547

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	2022 Base	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	16	100.000
2 - Low Moresby		ONE HOUR	✓	0	100.000
3 - A595 SW		ONE HOUR	✓	907	100.000
4 - A595 NE		ONE HOUR	✓	998	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To				
		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	16	0
	2 - Low Moresby	0	0	0	0
	3 - A595 SW	28	0	0	879
	4 - A595 NE	0	0	998	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
From	1 - B5306	0	100	7	0
	2 - Low Moresby	100	0	0	40
	3 - A595 SW	1	1	0	5
	4 - A595 NE	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.02	3.99	0.0	A	15	22
2 - Low Moresby	0.00	0.00	0.0	A	0	0
3 - A595 SW	0.59	5.38	1.5	A	832	1248
4 - A595 NE	0.44	2.68	0.8	A	916	1374

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	12	3	750	1158	0.010	12	21	0.0	0.0	3.367	A
2 - Low Moresby	0	0	762	925	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	683	171	0	1698	0.402	680	762	0.0	0.7	3.687	A
4 - A595 NE	751	188	21	2533	0.297	750	659	0.0	0.4	2.146	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	14	4	897	1085	0.013	14	25	0.0	0.0	3.604	A
2 - Low Moresby	0	0	911	855	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	815	204	0	1698	0.480	814	911	0.7	1.0	4.252	A
4 - A595 NE	897	224	25	2530	0.355	897	789	0.4	0.6	2.345	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	18	4	1098	985	0.018	18	31	0.0	0.0	3.989	A
2 - Low Moresby	0	0	1115	759	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	999	250	0	1698	0.588	997	1115	1.0	1.5	5.347	A
4 - A595 NE	1099	275	31	2526	0.435	1098	966	0.6	0.8	2.681	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	18	4	1099	984	0.018	18	31	0.0	0.0	3.991	A

2 - Low Moresby	0	0	1116	759	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	999	250	0	1698	0.588	999	1116	1.5	1.5	5.379	A
4 - A595 NE	1099	275	31	2526	0.435	1099	968	0.8	0.8	2.683	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	14	4	898	1084	0.013	14	25	0.0	0.0	3.606	A
2 - Low Moresby	0	0	913	854	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	815	204	0	1698	0.480	817	913	1.5	1.0	4.283	A
4 - A595 NE	897	224	25	2530	0.355	898	792	0.8	0.6	2.350	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	12	3	752	1157	0.010	12	21	0.0	0.0	3.373	A
2 - Low Moresby	0	0	764	924	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	683	171	0	1698	0.402	684	764	1.0	0.7	3.712	A
4 - A595 NE	751	188	21	2532	0.297	752	663	0.6	0.5	2.151	A

2022 Base, 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	4.75	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022 Base	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	26	100.000
2 - Low Moresby		ONE HOUR	✓	70	100.000
3 - A595 SW		ONE HOUR	✓	1024	100.000
4 - A595 NE		ONE HOUR	✓	1002	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	26	0
	2 - Low Moresby	0	0	0	70
	3 - A595 SW	19	0	0	1005
	4 - A595 NE	0	0	1002	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	1	0
	2 - Low Moresby	93	0	0	5
	3 - A595 SW	0	0	0	1
	4 - A595 NE	0	100	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.03	3.80	0.0	A	24	36
2 - Low Moresby	0.10	5.59	0.1	A	64	96

3 - A595 SW	0.68	6.88	2.1	A	940	1409
4 - A595 NE	0.44	2.55	0.8	A	919	1379

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	20	5	753	1156	0.017	20	14	0.0	0.0	3.185	A
2 - Low Moresby	53	13	772	920	0.057	52	0	0.0	0.1	4.342	A
3 - A595 SW	771	193	52	1670	0.462	767	772	0.0	0.9	4.023	A
4 - A595 NE	754	189	14	2537	0.297	753	806	0.0	0.4	2.044	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	23	6	900	1083	0.022	23	17	0.0	0.0	3.416	A
2 - Low Moresby	63	16	924	849	0.074	63	0	0.1	0.1	4.793	A
3 - A595 SW	921	230	63	1665	0.553	919	924	0.9	1.2	4.879	A
4 - A595 NE	901	225	17	2535	0.355	900	965	0.4	0.6	2.233	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	29	7	1102	983	0.029	29	21	0.0	0.0	3.794	A
2 - Low Moresby	77	19	1131	752	0.103	77	0	0.1	0.1	5.582	A
3 - A595 SW	1127	282	77	1657	0.680	1124	1131	1.2	2.1	6.790	A
4 - A595 NE	1103	276	21	2533	0.436	1102	1180	0.6	0.8	2.551	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	29	7	1103	982	0.029	29	21	0.0	0.0	3.796	A
2 - Low Moresby	77	19	1132	751	0.103	77	0	0.1	0.1	5.588	A
3 - A595 SW	1127	282	77	1657	0.680	1127	1132	2.1	2.1	6.876	A
4 - A595 NE	1103	276	21	2533	0.436	1103	1184	0.8	0.8	2.553	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	23	6	902	1082	0.022	23	17	0.0	0.0	3.419	A
2 - Low Moresby	63	16	925	848	0.074	63	0	0.1	0.1	4.799	A
3 - A595 SW	921	230	63	1665	0.553	924	925	2.1	1.3	4.946	A
4 - A595 NE	901	225	17	2535	0.355	902	970	0.8	0.6	2.235	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	20	5	755	1155	0.017	20	14	0.0	0.0	3.190	A
2 - Low Moresby	53	13	774	919	0.057	53	0	0.1	0.1	4.352	A
3 - A595 SW	771	193	53	1670	0.462	772	774	1.3	0.9	4.068	A
4 - A595 NE	754	189	14	2537	0.297	755	811	0.6	0.4	2.048	A

2032 Base, 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	4.36	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2032 Base	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	17	100.000
2 - Low Moresby		ONE HOUR	✓	0	100.000
3 - A595 SW		ONE HOUR	✓	974	100.000
4 - A595 NE		ONE HOUR	✓	1072	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	17	0
	2 - Low Moresby	0	0	0	0
	3 - A595 SW	30	0	0	944
	4 - A595 NE	0	0	1072	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	7	0
	2 - Low Moresby	100	0	0	40
	3 - A595 SW	1	1	0	5
	4 - A595 NE	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.02	4.16	0.0	A	16	23
2 - Low Moresby	0.00	0.00	0.0	A	0	0

3 - A595 SW	0.63	6.03	1.8	A	894	1341
4 - A595 NE	0.47	2.84	0.9	A	984	1476

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	805	1130	0.011	13	22	0.0	0.0	3.446	A
2 - Low Moresby	0	0	818	899	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	733	183	0	1698	0.432	730	818	0.0	0.8	3.889	A
4 - A595 NE	807	202	22	2532	0.319	805	708	0.0	0.5	2.209	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	963	1052	0.015	15	27	0.0	0.0	3.715	A
2 - Low Moresby	0	0	978	823	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	876	219	0	1698	0.516	874	978	0.8	1.1	4.578	A
4 - A595 NE	964	241	27	2529	0.381	963	847	0.5	0.7	2.436	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1179	945	0.020	19	33	0.0	0.0	4.160	A
2 - Low Moresby	0	0	1198	720	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	1072	268	0	1698	0.632	1070	1198	1.1	1.8	5.985	A
4 - A595 NE	1180	295	33	2524	0.468	1179	1037	0.7	0.9	2.833	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1180	944	0.020	19	33	0.0	0.0	4.162	A
2 - Low Moresby	0	0	1199	720	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	1072	268	0	1698	0.632	1072	1199	1.8	1.8	6.035	A
4 - A595 NE	1180	295	33	2524	0.468	1180	1039	0.9	0.9	2.838	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	965	1051	0.015	15	27	0.0	0.0	3.718	A
2 - Low Moresby	0	0	980	823	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	876	219	0	1698	0.516	878	980	1.8	1.1	4.622	A
4 - A595 NE	964	241	27	2528	0.381	965	851	0.9	0.7	2.441	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	808	1129	0.011	13	23	0.0	0.0	3.453	A
2 - Low Moresby	0	0	821	898	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	733	183	0	1698	0.432	735	821	1.1	0.8	3.925	A
4 - A595 NE	807	202	23	2531	0.319	808	712	0.7	0.5	2.215	A

2032 Base, 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	5.42	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2032 Base	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	28	100.000
2 - Low Moresby		ONE HOUR	✓	75	100.000
3 - A595 SW		ONE HOUR	✓	1095	100.000
4 - A595 NE		ONE HOUR	✓	1073	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	28	0
	2 - Low Moresby	0	0	0	75
	3 - A595 SW	20	0	0	1075
	4 - A595 NE	0	0	1073	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	1	0
	2 - Low Moresby	93	0	0	5
	3 - A595 SW	0	0	0	1
	4 - A595 NE	0	100	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.03	3.98	0.0	A	26	39
2 - Low Moresby	0.12	5.99	0.1	A	69	103

3 - A595 SW	0.73	8.09	2.7	A	1005	1507
4 - A595 NE	0.47	2.69	0.9	A	985	1477

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	806	1130	0.019	21	15	0.0	0.0	3.278	A
2 - Low Moresby	56	14	827	894	0.063	56	0	0.0	0.1	4.508	A
3 - A595 SW	824	206	56	1668	0.494	820	827	0.0	1.0	4.268	A
4 - A595 NE	808	202	15	2537	0.318	806	862	0.0	0.5	2.099	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	964	1051	0.024	25	18	0.0	0.0	3.542	A
2 - Low Moresby	67	17	989	818	0.082	67	0	0.1	0.1	5.033	A
3 - A595 SW	984	246	67	1662	0.592	983	989	1.0	1.4	5.331	A
4 - A595 NE	965	241	18	2535	0.381	964	1032	0.5	0.6	2.315	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1180	944	0.033	31	22	0.0	0.0	3.981	A
2 - Low Moresby	83	21	1211	714	0.116	82	0	0.1	0.1	5.981	A
3 - A595 SW	1206	301	82	1655	0.729	1201	1211	1.4	2.6	7.929	A
4 - A595 NE	1181	295	22	2532	0.467	1180	1261	0.6	0.9	2.690	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1181	943	0.033	31	22	0.0	0.0	3.983	A
2 - Low Moresby	83	21	1212	714	0.116	83	0	0.1	0.1	5.988	A
3 - A595 SW	1206	301	83	1654	0.729	1205	1212	2.6	2.7	8.087	A
4 - A595 NE	1181	295	22	2532	0.467	1181	1266	0.9	0.9	2.691	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	966	1051	0.024	25	18	0.0	0.0	3.548	A
2 - Low Moresby	67	17	991	818	0.082	68	0	0.1	0.1	5.042	A
3 - A595 SW	984	246	68	1662	0.592	989	991	2.7	1.5	5.438	A
4 - A595 NE	965	241	18	2535	0.381	966	1039	0.9	0.6	2.320	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	808	1129	0.019	21	15	0.0	0.0	3.282	A
2 - Low Moresby	56	14	830	893	0.063	57	0	0.1	0.1	4.517	A
3 - A595 SW	824	206	57	1668	0.494	826	830	1.5	1.0	4.329	A
4 - A595 NE	808	202	15	2537	0.318	808	868	0.6	0.5	2.106	A

2032 Base With 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	4.52	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2032 Base With 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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	17	100.000
2 - Low Moresby		ONE HOUR	✓	0	100.000
3 - A595 SW		ONE HOUR	✓	994	100.000
4 - A595 NE		ONE HOUR	✓	1138	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	17	0
	2 - Low Moresby	0	0	0	0
	3 - A595 SW	30	0	0	964
	4 - A595 NE	0	0	1138	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	7	0
	2 - Low Moresby	100	0	0	40
	3 - A595 SW	1	1	0	5
	4 - A595 NE	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.02	4.33	0.0	A	16	23

2 - Low Moresby	0.00	0.00	0.0	A	0	0
3 - A595 SW	0.64	6.25	1.9	A	912	1368
4 - A595 NE	0.50	3.00	1.0	A	1044	1566

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	855	1106	0.012	13	22	0.0	0.0	3.523	A
2 - Low Moresby	0	0	867	876	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	748	187	0	1698	0.441	745	867	0.0	0.8	3.949	A
4 - A595 NE	857	214	22	2532	0.338	855	723	0.0	0.5	2.272	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	1022	1022	0.015	15	27	0.0	0.0	3.823	A
2 - Low Moresby	0	0	1038	796	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	894	223	0	1698	0.526	892	1038	0.8	1.2	4.678	A
4 - A595 NE	1023	256	27	2529	0.405	1022	865	0.5	0.7	2.532	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1252	909	0.021	19	33	0.0	0.0	4.328	A
2 - Low Moresby	0	0	1270	686	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	1094	274	0	1698	0.645	1092	1270	1.2	1.9	6.196	A
4 - A595 NE	1253	313	33	2524	0.496	1252	1059	0.7	1.0	2.995	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1253	908	0.021	19	33	0.0	0.0	4.331	A
2 - Low Moresby	0	0	1272	686	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	1094	274	0	1698	0.645	1094	1272	1.9	1.9	6.253	A
4 - A595 NE	1253	313	33	2524	0.496	1253	1061	1.0	1.0	3.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	1024	1021	0.015	15	27	0.0	0.0	3.827	A
2 - Low Moresby	0	0	1040	795	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	894	223	0	1698	0.526	896	1040	1.9	1.2	4.726	A
4 - A595 NE	1023	256	27	2528	0.405	1024	869	1.0	0.7	2.540	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	857	1104	0.012	13	23	0.0	0.0	3.528	A
2 - Low Moresby	0	0	870	874	0.000	0	0	0.0	0.0	0.000	A
3 - A595 SW	748	187	0	1698	0.441	750	870	1.2	0.8	3.988	A
4 - A595 NE	857	214	23	2531	0.338	857	727	0.7	0.5	2.280	A

2032 Base With 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	6.27	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2032 Base With Dev	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	28	100.000
2 - Low Moresby		ONE HOUR	✓	75	100.000
3 - A595 SW		ONE HOUR	✓	1162	100.000
4 - A595 NE		ONE HOUR	✓	1087	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
From	1 - B5306	0	0	28	0
	2 - Low Moresby	0	0	0	75
	3 - A595 SW	20	0	0	1142
	4 - A595 NE	0	0	1087	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
From	1 - B5306	0	100	1	0
	2 - Low Moresby	93	0	0	5
	3 - A595 SW	0	0	0	1
	4 - A595 NE	0	100	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.03	4.02	0.0	A	26	39

2 - Low Moresby	0.12	6.06	0.1	A	69	103
3 - A595 SW	0.77	9.66	3.4	A	1066	1599
4 - A595 NE	0.47	2.72	0.9	A	997	1496

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	816	1125	0.019	21	15	0.0	0.0	3.294	A
2 - Low Moresby	56	14	837	890	0.063	56	0	0.0	0.1	4.535	A
3 - A595 SW	875	219	56	1668	0.524	870	837	0.0	1.1	4.532	A
4 - A595 NE	818	205	15	2537	0.323	816	912	0.0	0.5	2.112	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	977	1045	0.024	25	18	0.0	0.0	3.563	A
2 - Low Moresby	67	17	1002	812	0.083	67	0	0.1	0.1	5.072	A
3 - A595 SW	1045	261	67	1662	0.628	1042	1002	1.1	1.7	5.839	A
4 - A595 NE	977	244	18	2535	0.386	977	1092	0.5	0.6	2.332	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1196	936	0.033	31	22	0.0	0.0	4.015	A
2 - Low Moresby	83	21	1227	707	0.117	82	0	0.1	0.1	6.050	A
3 - A595 SW	1279	320	82	1655	0.773	1273	1227	1.7	3.3	9.367	A
4 - A595 NE	1197	299	22	2532	0.473	1196	1333	0.6	0.9	2.718	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1197	936	0.033	31	22	0.0	0.0	4.017	A
2 - Low Moresby	83	21	1228	707	0.117	83	0	0.1	0.1	6.057	A
3 - A595 SW	1279	320	83	1654	0.773	1279	1228	3.3	3.4	9.664	A
4 - A595 NE	1197	299	22	2532	0.473	1197	1340	0.9	0.9	2.722	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	978	1044	0.024	25	18	0.0	0.0	3.567	A
2 - Low Moresby	67	17	1003	812	0.083	68	0	0.1	0.1	5.080	A
3 - A595 SW	1045	261	68	1662	0.628	1051	1003	3.4	1.7	6.008	A
4 - A595 NE	977	244	18	2535	0.386	978	1101	0.9	0.6	2.339	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	819	1123	0.019	21	15	0.0	0.0	3.300	A
2 - Low Moresby	56	14	840	888	0.064	57	0	0.1	0.1	4.546	A
3 - A595 SW	875	219	57	1668	0.524	877	840	1.7	1.1	4.612	A
4 - A595 NE	818	205	15	2537	0.323	819	919	0.6	0.5	2.119	A

2032 Base With Dev With ID 43, 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	5.00	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2032 Base With Dev With ID 43	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	17	100.000
2 - Low Moresby		ONE HOUR	✓	100	100.000
3 - A595 SW		ONE HOUR	✓	994	100.000
4 - A595 NE		ONE HOUR	✓	1138	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	17	0
	2 - Low Moresby	0	0	0	100
	3 - A595 SW	30	0	0	964
	4 - A595 NE	0	0	1138	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	7	0
	2 - Low Moresby	100	0	0	40
	3 - A595 SW	1	1	0	5
	4 - A595 NE	0	100	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.02	4.33	0.0	A	16	23

2 - Low Moresby	0.16	8.75	0.3	A	92	138
3 - A595 SW	0.67	6.92	2.1	A	912	1368
4 - A595 NE	0.50	3.00	1.0	A	1044	1566

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	855	1106	0.012	13	22	0.0	0.0	3.523	A
2 - Low Moresby	75	19	867	876	0.086	75	0	0.0	0.1	6.289	A
3 - A595 SW	748	187	75	1659	0.451	745	867	0.0	0.9	4.118	A
4 - A595 NE	857	214	22	2532	0.338	855	797	0.0	0.5	2.272	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	1022	1022	0.015	15	27	0.0	0.0	3.823	A
2 - Low Moresby	90	22	1038	796	0.113	90	0	0.1	0.2	7.137	A
3 - A595 SW	894	223	90	1651	0.541	892	1038	0.9	1.2	4.966	A
4 - A595 NE	1023	256	27	2529	0.405	1022	955	0.5	0.7	2.532	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1252	909	0.021	19	33	0.0	0.0	4.328	A
2 - Low Moresby	110	28	1270	686	0.160	110	0	0.2	0.3	8.733	A
3 - A595 SW	1094	274	110	1640	0.667	1091	1270	1.2	2.1	6.833	A
4 - A595 NE	1253	313	33	2524	0.496	1252	1168	0.7	1.0	2.995	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	19	5	1253	908	0.021	19	33	0.0	0.0	4.331	A
2 - Low Moresby	110	28	1272	686	0.161	110	0	0.3	0.3	8.753	A
3 - A595 SW	1094	274	110	1640	0.667	1094	1272	2.1	2.1	6.916	A
4 - A595 NE	1253	313	33	2524	0.496	1253	1171	1.0	1.0	3.000	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	15	4	1024	1021	0.015	15	27	0.0	0.0	3.827	A
2 - Low Moresby	90	22	1040	795	0.113	90	0	0.3	0.2	7.156	A
3 - A595 SW	894	223	90	1650	0.541	897	1040	2.1	1.3	5.031	A
4 - A595 NE	1023	256	27	2528	0.405	1024	960	1.0	0.7	2.540	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	13	3	857	1104	0.012	13	23	0.0	0.0	3.531	A
2 - Low Moresby	75	19	870	874	0.086	75	0	0.2	0.1	6.311	A
3 - A595 SW	748	187	75	1658	0.451	750	870	1.3	0.9	4.164	A
4 - A595 NE	857	214	23	2531	0.338	857	803	0.7	0.5	2.280	A

2032 Base With Dev With ID 43, 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	7.05	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2032 Base With Dev With ID 43	PM	ONE HOUR	16:45	18:15	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 (PCU/hr)	Scaling Factor (%)
1 - B5306		ONE HOUR	✓	28	100.000
2 - Low Moresby		ONE HOUR	✓	163	100.000
3 - A595 SW		ONE HOUR	✓	1162	100.000
4 - A595 NE		ONE HOUR	✓	1087	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	0	28	0
	2 - Low Moresby	0	0	0	163
	3 - A595 SW	20	0	0	1142
	4 - A595 NE	0	0	1087	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5306	2 - Low Moresby	3 - A595 SW	4 - A595 NE
	1 - B5306	0	100	1	0
	2 - Low Moresby	93	0	0	5
	3 - A595 SW	0	0	0	1
	4 - A595 NE	0	100	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
1 - B5306	0.03	4.02	0.0	A	26	39

2 - Low Moresby	0.25	7.17	0.4	A	150	224
3 - A595 SW	0.80	11.16	3.9	B	1066	1599
4 - A595 NE	0.47	2.72	0.9	A	997	1496

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	816	1125	0.019	21	15	0.0	0.0	3.294	A
2 - Low Moresby	123	31	837	890	0.138	122	0	0.0	0.2	4.921	A
3 - A595 SW	875	219	122	1634	0.535	870	837	0.0	1.2	4.733	A
4 - A595 NE	818	205	15	2537	0.323	816	977	0.0	0.5	2.112	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	977	1045	0.024	25	18	0.0	0.0	3.563	A
2 - Low Moresby	147	37	1002	812	0.180	146	0	0.2	0.2	5.673	A
3 - A595 SW	1045	261	146	1621	0.644	1042	1002	1.2	1.8	6.249	A
4 - A595 NE	977	244	18	2535	0.386	977	1170	0.5	0.6	2.332	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1196	936	0.033	31	22	0.0	0.0	4.015	A
2 - Low Moresby	179	45	1227	707	0.254	179	0	0.2	0.4	7.152	A
3 - A595 SW	1279	320	179	1604	0.798	1272	1227	1.8	3.8	10.690	B
4 - A595 NE	1197	299	22	2532	0.473	1196	1429	0.6	0.9	2.718	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	31	8	1197	936	0.033	31	22	0.0	0.0	4.017	A
2 - Low Moresby	179	45	1228	707	0.254	179	0	0.4	0.4	7.171	A
3 - A595 SW	1279	320	179	1604	0.798	1279	1228	3.8	3.9	11.161	B
4 - A595 NE	1197	299	22	2532	0.473	1197	1436	0.9	0.9	2.722	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	25	6	978	1044	0.024	25	18	0.0	0.0	3.569	A
2 - Low Moresby	147	37	1003	812	0.181	147	0	0.4	0.2	5.692	A
3 - A595 SW	1045	261	147	1621	0.645	1053	1003	3.9	1.9	6.489	A
4 - A595 NE	977	244	18	2534	0.386	978	1182	0.9	0.6	2.337	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Throughput (exit side) (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5306	21	5	819	1123	0.019	21	15	0.0	0.0	3.300	A
2 - Low Moresby	123	31	840	888	0.138	123	0	0.2	0.2	4.941	A
3 - A595 SW	875	219	123	1633	0.536	878	840	1.9	1.2	4.829	A
4 - A595 NE	818	205	15	2537	0.323	819	985	0.6	0.5	2.117	A

Junctions 9										
PICADY 9 - Priority Intersection Module										
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Filename: A595 Rosehill.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Rosehill

Report generation date: 22/02/2022 14:47:30

»2022, AM
»2022, PM
»2032 No Dev, AM
»2032 No Dev, PM
»2032 With Dev, AM
»2032 With Dev, PM

Summary of junction performance

	AM					PM				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	2022									
Stream B-C	D1	1.9	478.43	1.02	F	D2	0.4	46.05	0.29	E
Stream B-A		7.7	223.87	1.00	F		3.2	148.73	0.82	F
Stream C-AB		0.1	9.49	0.11	A		0.0	8.67	0.02	A
	2032 No Dev									
Stream B-C	D3	3.2	1257.22	1.51	F	D4	5.7	467.27	1.34	F
Stream B-A		24.3	606.80	1.47	F		14.0	488.24	1.32	F
Stream C-AB		0.1	10.27	0.13	B		0.0	9.24	0.03	A
	2032 With Dev									
Stream B-C	D5	4.1	1935.71	1.97	F	D6	9.9	1933.41	2.21	F
Stream B-A		37.1	1388.12	1.90	F		36.5	1718.59	2.13	F
Stream C-AB		0.2	10.91	0.13	B		0.0	9.35	0.03	A

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

File summary

File Description

Title	A595/Rosehill
Location	Whiteheaven
Site number	
Date	16/02/2022
Version	
Status	Exsiting Arangement
Identifier	Angus Atkin
Client	Cleator Moor Innovation Quater
Jobnumber	784-B030277
Enumerator	TTVANGUS.ATKIN
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	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

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

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2022	AM	ONE HOUR	00:00	01:30	15	✓
D2	2022	PM	ONE HOUR	00:00	01:30	15	✓
D3	2032 No Dev	AM	ONE HOUR	00:00	01:30	15	✓
D4	2032 No Dev	PM	ONE HOUR	00:00	01:30	15	✓
D5	2032 With Dev	AM	ONE HOUR	00:00	01:30	15	✓
D6	2032 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

Analysis Set Details

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

2022, 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		15.35	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A595 North		Major
B	Rosehill		Minor
C	A595 South		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Width for right turn (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - A595 South	6.80		✓	3.50	194.0	✓	3.00

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	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Rosehill	One lane plus flare	10.00	8.80	5.60	4.20	3.90	✓	2.00	52	29

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	591	0.104	0.263	0.165	0.375
B-C	651	0.096	0.243	-	-
C-B	783	0.293	0.293	-	-

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	2022	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1098	100.000
B - Rosehill		ONE HOUR	✓	128	100.000
C - A595 South		ONE HOUR	✓	883	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	137	961
	B - Rosehill	115	0	13
	C - A595 South	840	43	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	4	6
	B - Rosehill	4	0	1
	C - A595 South	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.02	478.43	1.9	F	12	18
B-A	1.00	223.87	7.7	F	106	158
C-AB	0.11	9.49	0.1	A	40	59
C-A					771	1156
A-B					126	189
A-C					882	1323

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	424	0.023	10	0.0	0.0	8.775	A
B-A	87	22	274	0.316	85	0.0	0.5	19.614	C
C-AB	32	8	541	0.060	32	0.0	0.1	7.137	A
C-A	632	158			632				
A-B	103	26			103				
A-C	723	181			723				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	354	0.033	12	0.0	0.0	10.624	B
B-A	103	26	212	0.487	102	0.5	0.9	33.318	D
C-AB	39	10	495	0.078	39	0.1	0.1	7.974	A
C-A	755	189			755				
A-B	123	31			123				
A-C	864	216			864				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	14	1.018	8	0.0	1.5	478.433	F
B-A	127	32	127	0.998	109	0.9	5.4	146.005	F
C-AB	47	12	431	0.110	47	0.1	0.1	9.484	A
C-A	925	231			925				
A-B	151	38			151				
A-C	1058	265			1058				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	17	0.825	13	1.5	1.9	406.513	F
B-A	127	32	127	1.000	117	5.4	7.7	223.869	F
C-AB	47	12	431	0.110	47	0.1	0.1	9.492	A
C-A	925	231			925				
A-B	151	38			151				
A-C	1058	265			1058				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	308	0.038	19	1.9	0.0	12.911	B
B-A	103	26	212	0.489	130	7.7	1.1	57.371	F
C-AB	39	10	495	0.078	39	0.1	0.1	7.981	A
C-A	755	189			755				
A-B	123	31			123				
A-C	864	216			864				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	421	0.023	10	0.0	0.0	8.839	A
B-A	87	22	274	0.316	89	1.1	0.5	20.504	C
C-AB	32	8	541	0.060	32	0.1	0.1	7.145	A
C-A	632	158			632				
A-B	103	26			103				
A-C	723	181			723				

2022, 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		5.80	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2022	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1098	100.000
B - Rosehill		ONE HOUR	✓	108	100.000
C - A595 South		ONE HOUR	✓	1064	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	155	943
	B - Rosehill	79	0	29
	C - A595 South	1055	9	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	1	1
	B - Rosehill	1	0	0
	C - A595 South	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	0.29	46.05	0.4	E	27	40
B-A	0.82	148.73	3.2	F	72	109
C-AB	0.02	8.67	0.0	A	8	12
C-A					968	1452
A-B					142	213
A-C					865	1298

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	452	0.048	22	0.0	0.1	8.357	A
B-A	59	15	261	0.228	58	0.0	0.3	17.878	C
C-AB	7	2	541	0.013	7	0.0	0.0	6.802	A
C-A	794	199			794				
A-B	117	29			117				
A-C	710	177			710				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	397	0.066	26	0.1	0.1	9.713	A
B-A	71	18	196	0.363	70	0.3	0.5	28.703	D
C-AB	8	2	494	0.016	8	0.0	0.0	7.478	A
C-A	948	237			948				
A-B	139	35			139				
A-C	848	212			848				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	172	0.186	31	0.1	0.2	25.511	D
B-A	87	22	106	0.823	78	0.5	2.7	111.822	F
C-AB	10	2	429	0.023	10	0.0	0.0	8.670	A
C-A	1162	290			1162				
A-B	171	43			171				
A-C	1038	260			1038				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	32	8	109	0.294	31	0.2	0.4	46.049	E
B-A	87	22	106	0.821	85	2.7	3.2	148.730	F
C-AB	10	2	429	0.023	10	0.0	0.0	8.670	A
C-A	1162	290			1162				
A-B	171	43			171				
A-C	1038	260			1038				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	26	7	381	0.068	27	0.4	0.1	10.201	B
B-A	71	18	192	0.371	81	3.2	0.6	35.705	E
C-AB	8	2	494	0.016	8	0.0	0.0	7.479	A
C-A	948	237			948				
A-B	139	35			139				
A-C	848	212			848				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	22	5	450	0.048	22	0.1	0.1	8.402	A
B-A	59	15	261	0.228	61	0.6	0.3	18.289	C
C-AB	7	2	541	0.013	7	0.0	0.0	6.805	A
C-A	794	199			794				
A-B	117	29			117				
A-C	710	177			710				

2032 No 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		40.38	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2032 No Dev	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1180	100.000
B - Rosehill		ONE HOUR	✓	136	100.000
C - A595 South		ONE HOUR	✓	949	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	147	1033
	B - Rosehill	123	0	13
	C - A595 South	903	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	4	6
	B - Rosehill	4	0	1
	C - A595 South	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.51	1257.22	3.2	F	12	18
B-A	1.47	606.80	24.3	F	113	169
C-AB	0.13	10.27	0.1	B	42	63
C-A					828	1243
A-B					135	202
A-C					948	1422

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	402	0.024	10	0.0	0.0	9.271	A
B-A	93	23	250	0.370	90	0.0	0.6	23.107	C
C-AB	35	9	523	0.066	34	0.0	0.1	7.433	A
C-A	680	170			680				
A-B	111	28			111				
A-C	778	194			778				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	301	0.039	12	0.0	0.0	12.550	B
B-A	111	28	184	0.602	107	0.6	1.4	47.137	E
C-AB	41	10	473	0.088	41	0.1	0.1	8.417	A
C-A	812	203			812				
A-B	132	33			132				
A-C	929	232			929				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	9	1.513	6	0.0	2.0	787.048	F
B-A	135	34	92	1.470	88	1.4	13.3	357.643	F
C-AB	51	13	405	0.126	51	0.1	0.1	10.262	B
C-A	994	248			994				
A-B	162	40			162				
A-C	1137	284			1137				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	11	1.309	10	2.0	3.2	1257.222	F
B-A	135	34	92	1.471	91	13.3	24.3	606.802	F
C-AB	51	13	405	0.126	51	0.1	0.1	10.272	B
C-A	994	248			994				
A-B	162	40			162				
A-C	1137	284			1137				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	22	0.538	17	3.2	2.0	439.851	F
B-A	111	28	184	0.602	176	24.3	8.0	337.465	F
C-AB	41	10	473	0.087	42	0.1	0.1	8.429	A
C-A	812	203			812				
A-B	132	33			132				
A-C	929	232			929				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	373	0.026	18	2.0	0.0	10.438	B
B-A	93	23	250	0.371	122	8.0	0.6	35.743	E
C-AB	35	9	523	0.066	35	0.1	0.1	7.442	A
C-A	680	170			680				
A-B	111	28			111				
A-C	778	194			778				

2032 No 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		23.08	C

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2032 No Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1175	100.000
B - Rosehill		ONE HOUR	✓	116	100.000
C - A595 South		ONE HOUR	✓	1139	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	166	1009
	B - Rosehill	85	0	31
	C - A595 South	1129	10	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	1	1
	B - Rosehill	1	0	0
	C - A595 South	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.34	467.27	5.7	F	28	43
B-A	1.32	488.24	14.0	F	78	117
C-AB	0.03	9.24	0.0	A	9	14
C-A					1036	1554
A-B					152	228
A-C					926	1389

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	434	0.054	23	0.0	0.1	8.761	A
B-A	64	16	237	0.270	63	0.0	0.4	20.674	C
C-AB	8	2	524	0.014	7	0.0	0.0	7.035	A
C-A	850	212			850				
A-B	125	31			125				
A-C	760	190			760				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	363	0.077	28	0.1	0.1	10.734	B
B-A	76	19	168	0.456	75	0.4	0.8	38.498	E
C-AB	9	2	474	0.019	9	0.0	0.0	7.819	A
C-A	1015	254			1015				
A-B	149	37			149				
A-C	907	227			907				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	25	1.344	20	0.1	3.6	439.068	F
B-A	94	23	71	1.313	65	0.8	8.0	306.710	F
C-AB	11	3	404	0.027	11	0.0	0.0	9.241	A
C-A	1243	311			1243				
A-B	183	46			183				
A-C	1111	278			1111				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	27	1.241	26	3.6	5.7	467.266	F
B-A	94	23	71	1.317	70	8.0	14.0	488.245	F
C-AB	11	3	404	0.027	11	0.0	0.0	9.241	A
C-A	1243	311			1243				
A-B	183	46			183				
A-C	1111	278			1111				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	232	0.120	50	5.7	0.1	22.268	C
B-A	76	19	167	0.458	128	14.0	1.0	146.170	F
C-AB	9	2	474	0.019	9	0.0	0.0	7.820	A
C-A	1015	254			1015				
A-B	149	37			149				
A-C	907	227			907				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	431	0.054	24	0.1	0.1	8.848	A
B-A	64	16	237	0.270	66	1.0	0.4	21.563	C
C-AB	8	2	524	0.014	8	0.0	0.0	7.039	A
C-A	850	212			850				
A-B	125	31			125				
A-C	760	190			760				

2032 With 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		89.48	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2032 With Dev	AM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1245	100.000
B - Rosehill		ONE HOUR	✓	146	100.000
C - A595 South		ONE HOUR	✓	959	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	180	1065
	B - Rosehill	133	0	13
	C - A595 South	913	46	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	4	6
	B - Rosehill	4	0	1
	C - A595 South	4	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	1.97	1935.71	4.1	F	12	18
B-A	1.90	1388.12	37.1	F	122	183
C-AB	0.13	10.91	0.2	B	42	64
C-A					838	1256
A-B					165	248
A-C					977	1466

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	385	0.025	10	0.0	0.0	9.688	A
B-A	100	25	240	0.417	97	0.0	0.7	25.776	D
C-AB	35	9	509	0.068	34	0.0	0.1	7.654	A
C-A	687	172			687				
A-B	136	34			136				
A-C	802	200			802				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	249	0.047	12	0.0	0.0	15.335	C
B-A	120	30	172	0.697	115	0.7	2.0	61.024	F
C-AB	41	10	456	0.091	41	0.1	0.1	8.763	A
C-A	821	205			821				
A-B	162	40			162				
A-C	957	239			957				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	7	1.969	5	0.0	2.3	1024.462	F
B-A	146	37	77	1.894	75	2.0	19.7	578.006	F
C-AB	51	13	384	0.133	51	0.1	0.2	10.896	B
C-A	1005	251			1005				
A-B	198	50			198				
A-C	1173	293			1173				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	14	4	8	1.765	7	2.3	4.1	1935.707	F
B-A	146	37	77	1.896	77	19.7	37.1	1388.123	F
C-AB	51	13	384	0.133	51	0.2	0.2	10.909	B
C-A	1005	251			1005				
A-B	198	50			198				
A-C	1173	293			1173				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	12	3	18	0.653	15	4.1	3.1	906.314	F
B-A	120	30	171	0.697	167	37.1	25.3	612.718	F
C-AB	41	10	456	0.091	42	0.2	0.1	8.777	A
C-A	821	205			821				
A-B	162	40			162				
A-C	957	239			957				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	10	2	188	0.052	22	3.1	0.1	23.402	C
B-A	100	25	240	0.418	198	25.3	0.9	173.732	F
C-AB	35	9	509	0.068	35	0.1	0.1	7.670	A
C-A	687	172			687				
A-B	136	34			136				
A-C	802	200			802				

2032 With 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		104.67	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2032 With Dev	PM	ONE HOUR	00:00	01:30	15	✓

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

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - A595 North		ONE HOUR	✓	1189	100.000
B - Rosehill		ONE HOUR	✓	149	100.000
C - A595 South		ONE HOUR	✓	1173	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	173	1016
	B - Rosehill	118	0	31
	C - A595 South	1163	10	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 North	B - Rosehill	C - A595 South
From	A - A595 North	0	1	1
	B - Rosehill	1	0	0
	C - A595 South	1	1	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-C	2.21	1933.41	9.9	F	28	43
B-A	2.13	1718.59	36.5	F	108	162
C-AB	0.03	9.35	0.0	A	9	14
C-A					1067	1601
A-B					159	238
A-C					932	1398

Main Results for each time segment

00:00 - 00:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	407	0.057	23	0.0	0.1	9.371	A
B-A	89	22	227	0.391	86	0.0	0.6	25.439	D
C-AB	8	2	521	0.014	7	0.0	0.0	7.078	A
C-A	876	219			876				
A-B	130	33			130				
A-C	765	191			765				

00:15 - 00:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	278	0.100	28	0.1	0.1	14.331	B
B-A	106	27	157	0.674	102	0.6	1.7	60.996	F
C-AB	9	2	470	0.019	9	0.0	0.0	7.882	A
C-A	1046	261			1046				
A-B	156	39			156				
A-C	913	228			913				

00:30 - 00:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	15	2.208	13	0.1	5.3	841.596	F
B-A	130	32	61	2.123	60	1.7	19.3	687.257	F
C-AB	11	3	400	0.028	11	0.0	0.0	9.349	A
C-A	1280	320			1280				
A-B	190	48			190				
A-C	1119	280			1119				

00:45 - 01:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	9	16	2.083	16	5.3	9.9	1933.412	F
B-A	130	32	61	2.125	61	19.3	36.5	1718.586	F
C-AB	11	3	400	0.028	11	0.0	0.0	9.349	A
C-A	1280	320			1280				
A-B	190	48			190				
A-C	1119	280			1119				

01:00 - 01:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	28	7	42	0.664	38	9.9	7.3	885.893	F
B-A	106	27	157	0.676	153	36.5	24.9	644.685	F
C-AB	9	2	470	0.019	9	0.0	0.0	7.884	A
C-A	1046	261			1046				
A-B	156	39			156				
A-C	913	228			913				

01:15 - 01:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	23	6	219	0.106	52	7.3	0.1	25.392	D
B-A	89	22	226	0.393	185	24.9	0.7	178.697	F
C-AB	8	2	521	0.014	8	0.0	0.0	7.081	A
C-A	876	219			876				
A-B	130	33			130				
A-C	765	191			765				

TRANSYT 15	
Version: 15.5.2.7994 © Copyright TRL Limited, 2018	
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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:28:38

«A1 - 2022 AM Peak : D1 - 2022 AM Peak* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A1 - 2022 AM Peak

D1 - 2022 AM Peak*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
1	28/02/2022 11:27:59	28/02/2022 11:27:59	08:00	64	521.12	33.17	93.82	17/1	1	4	17/1	6/1	17/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 AM Peak		D1	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2022 AM Peak				08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
64		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	64

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	430	430
2	1	293	293
	2	504	504
3	1	423	423
4	1	782	782
5	1	548	548
6	1	679	679
7	1	797	797
8	1	430	430
9	1	423	423
10	1	782	782
11	1	0	0
12	1	42	42
13	1	584	584
14	1	804	804
15	1	626	626
16	1	621	621
	2	125	125
17	1	125	125
18	1	590	590
19	1	746	746

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	293	504	0
	2	244	0	42	340
	3	538	125	0	83
	4	0	386	44	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	293
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	386
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	244
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	340
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	504
	8		2	3	15/1, 12/1, 18/1	Normal	42
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	44
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	83
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	538
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	125

Signal Timings

Network Default: 64s cycle time; 64 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	64

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	14, 42

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	49	14	29	1	7
	2	✓	2	I	20	42	22	1	7

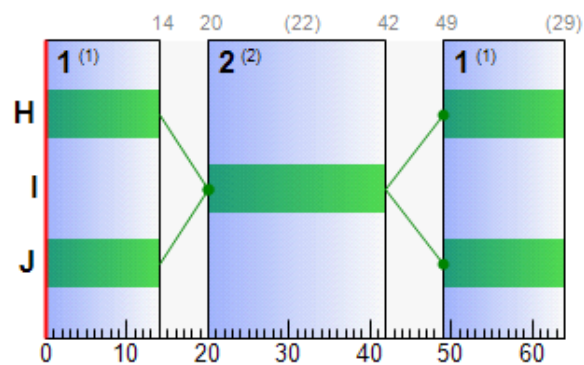
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	49	14	29
	I	1	✓	20	42	22
	J	1	✓	49	14	29

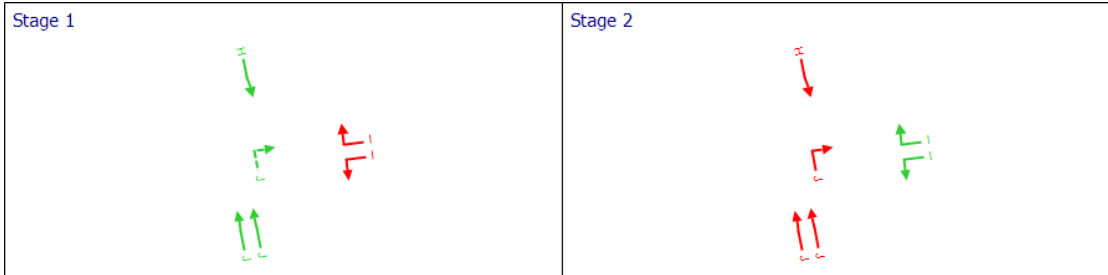
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	20	42	22
1	2	2	1	I	20	42	22
2	1	1	1	J	49	14	29
2	2	1	1	J	49	14	29
10	1	1	1	H	49	14	29
11	1		1	J	49	14	29

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	64

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	F	1	3	4
	4	Losing	G	3	1	2

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	17, 40

Intergreen Matrix for Controller Stream 2

		To						
		A	B	C	D	E	F	G
From	A				6			6
	B			6	6			6
	C		6		6	9		9
	D	6	5	6				
	E			6			6	
	F					7		
	G	15	15	15				

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	6
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	57	17	24	1	7
	2	✓	3	E,D,G	28	40	12	1	8

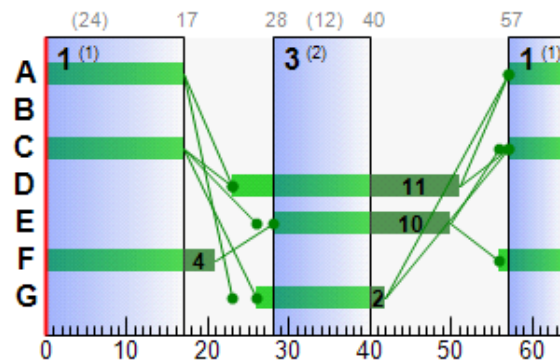
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	57	17	24
	C	1	✓	57	17	24
	D	1	✓	23	51	28
	E	1	✓	28	50	22
	F	1	✓	56	21	29
	G	1	✓	26	42	16

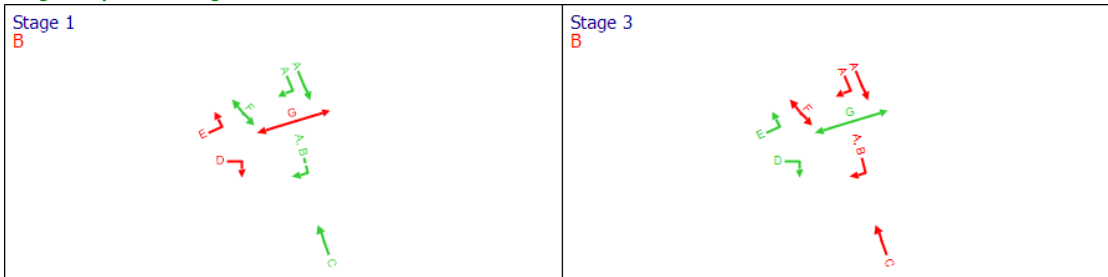
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	57	17	24
12	1	2	2	E	28	50	22
13	1		2	D	23	51	28
16	1	2	2	A	57	17	24
16	2	2	2	A	57	17	24
17	1		2	A	57	17	24

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
1	28/02/2022 11:27:59	28/02/2022 11:27:59	08:00	64	521.12	33.17	93.82	17/1	1	4	17/1	6/1	17/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	94	-4	10354	946	11.53	470.96	50.16	521.12

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	10354	10354	0		94	✓	-4	1036

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	12.83	11.53	33.17	470.96	38.63	4000.20	50.16

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	122.28	0.00	146.92

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	521.12

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To				
From		1	2	3	4
	1	0.0	88.0	85.1	0.0
	2	93.4	0.0	47.0	75.9
	3	119.6	161.6	0.0	79.6
	4	0.0	98.0	92.8	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	293	87.99	293	87.99
4	4	2	386	97.97	386	97.97
5	2	1	244	93.37	244	93.37
6	2	4	340	75.86	340	75.86
7	1	3	504	85.10	504	85.10
8	2	3	42	46.97	42	46.97
9	4	3	44	92.84	44	92.84
10	3	4	83	79.60	83	79.60
11	3	1	538	119.58	538	119.58
12	3	2	125	161.59	125	161.59

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	22	23.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		430	1820	22	0.00	66	37	30.19	22.42	83.68
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		293	1955	29	0.48	32	177	20.93	11.76	60.53
	2	A595 Northbound at B5295 O/S	1	1	J		504	1945	29	0.00	55	63	23.80	14.62	68.18
3	1						423	Unrestricted	64	4.00	0	Unrestricted	8.51	0.00	0.00
4	1						782	Unrestricted	64	25.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		548	1985	24	7.00	71	27	39.00	16.88	47.18
6	1	A595 Northbound N/S					679	795	64	5.00	85	5	43.35	19.39	61.16
7	1	A595 Northbound Feeder Lane					797	Unrestricted	64	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					430	Unrestricted	64	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						423	691	64	7.00	61	47	32.12	7.95	27.40
10	1	A595 Southbound	1	1	H		782	1975	29	4.00	84	7	58.92	35.73	112.04
11	1	A595 Northbound Right Turn Pocket		1	J		0	134	29	30.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		42	1911	22	14.00	6	1372	15.54	12.70	48.20
13	1	Inkermant Terrace Right Turn		2	D		584 <	1929	28	0.00	67	35	19.14	15.78	54.48
14	1						804	Unrestricted	64	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkermant Terrace Feeder Lane					626	Unrestricted	64	18.00	0	Unrestricted	15.16	2.28	27.41
16	1	A595 Southbound N/S	2	2	A		621	1905	24	0.00	83	8	37.72	29.29	98.51
	2	A595 Southbound O/S	2	2	A		125	1874	24	0.44	17	418	21.95	13.44	61.80
17	1	A595 Southbound Right Turn		2	A	B	125 <	341	24	0.00	94	-4	116.36	113.45	203.60
18	1						590	Unrestricted	64	9.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					746	Unrestricted	64	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1107.17	70.07	9.82	33.17	470.96	50.16	0.00	521.12
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1107.17	70.07	9.82	33.17	470.96	50.16	0.00	521.12

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | P.I. = PERFORMANCE INDEX



TRANSYT 15	
Version: 15.5.2.7994 © Copyright TRL Limited, 2018	
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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:30:58

«A2 - 2022 PM Peak : D2 - 2022 PM Peak* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A2 - 2022 PM Peak

D2 - 2022 PM Peak*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
2	28/02/2022 11:30:41	28/02/2022 11:30:41	17:00	64	484.89	30.66	102.22	17/1	1	4	17/1	9/1	17/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2022 PM Peak		D2	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2022 PM Peak				17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
64		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	64

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	373	373
2	1	259	259
	2	658	658
3	1	538	538
4	1	665	665
5	1	678	678
6	1	612	612
7	1	917	917
8	1	373	373
9	1	538	538
10	1	665	665
11	1	0	0
12	1	59	59
13	1	644	644
14	1	679	679
15	1	703	703
16	1	559	559
	2	67	67
17	1	67	67
18	1	737	737
19	1	626	626

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	259	658	0
	2	173	0	59	471
	3	492	67	0	67
	4	0	353	20	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	259
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	353
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	173
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	471
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	658
	8		2	3	15/1, 12/1, 18/1	Normal	59
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	20
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	67
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	492
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	67

Signal Timings

Network Default: 64s cycle time; 64 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	64

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	19, 43

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	50	19	33	1	7
	2	✓	2	I	25	43	18	1	7

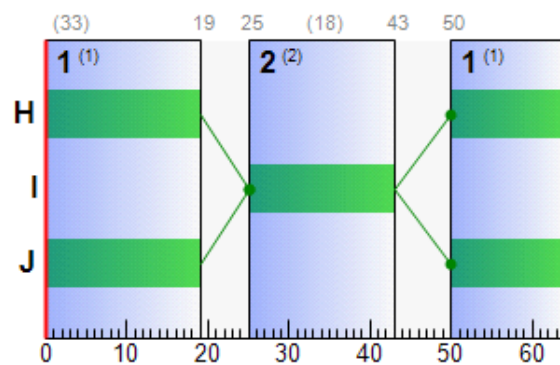
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	50	19	33
	I	1	✓	25	43	18
	J	1	✓	50	19	33

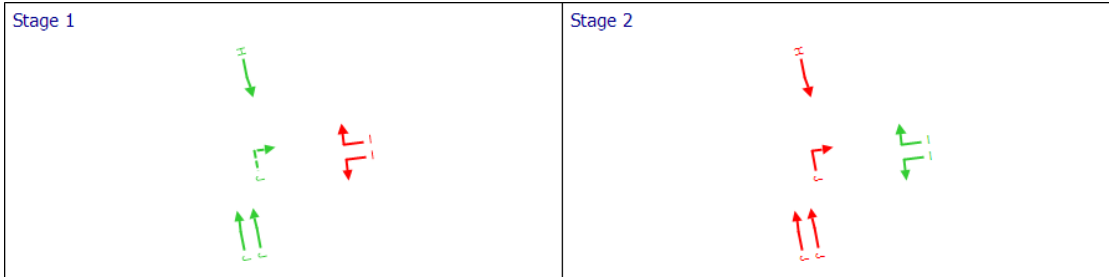
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	25	43	18
1	2	2	1	I	25	43	18
2	1	1	1	J	50	19	33
2	2	1	1	J	50	19	33
10	1	1	1	H	50	19	33
11	1		1	J	50	19	33

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	64

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	F	1	3	4
	4	Losing	G	3	1	2

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	36, 57

Intergreen Matrix for Controller Stream 2

		To						
		A	B	C	D	E	F	G
From	A				6			6
	B			6	6			6
	C		6		6	9		9
	D	6	5	6				
	E			6			6	
	F					7		
	G	15	15	15				

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	6
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	10	36	26	1	7
	2	✓	3	E,D,G	47	57	10	1	8

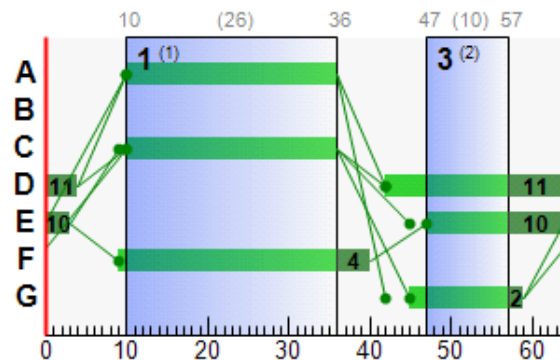
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	10	36	26
	C	1	✓	10	36	26
	D	1	✓	42	4	26
	E	1	✓	47	3	20
	F	1	✓	9	40	31
	G	1	✓	45	59	14

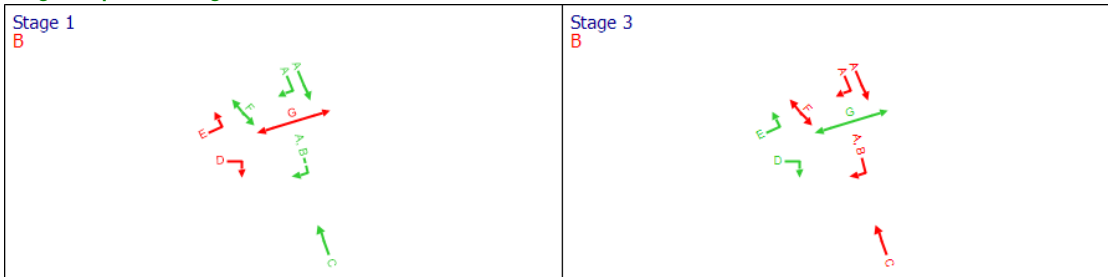
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	10	36	26
12	1	2	2	E	47	3	20
13	1		2	D	42	4	26
16	1	2	2	A	10	36	26
16	2	2	2	A	10	36	26
17	1		2	A	10	36	26

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
2	28/02/2022 11:30:41	28/02/2022 11:30:41	17:00	64	484.89	30.66	102.22	17/1	1	4	17/1	9/1	17/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	102	-12	10416	958	10.60	435.41	49.48	484.89

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
17:00-18:00	10416	10414	1	✓	102	✓	-12	1048

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.90	10.60	30.66	435.41	37.93	3946.61	49.48

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
17:00-18:00	154.32	0.00	124.54

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00		1.00	0.00	0.00	484.89

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To				
From		1	2	3	4
	1	0.0	76.8	82.2	0.0
	2	84.5	0.0	49.6	92.9
	3	88.1	367.7	0.0	80.6
	4	0.0	96.2	110.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	259	76.75	259	76.75
4	4	2	353	96.19	353	96.19
5	2	1	173	84.53	173	84.53
6	2	4	471	92.87	471	92.87
7	1	3	658	82.16	658	82.16
8	2	3	59	49.59	59	49.59
9	4	3	20	110.09	20	110.09
10	3	4	67	80.65	67	80.65
11	3	1	492	88.06	492	88.06
12	3	2	67	367.71	67	367.71

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	18	19.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		373	1820	18	0.00	69	30	34.97	27.21	91.16
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		259	1955	33	0.40	25	257	17.98	8.81	50.92
	2	A595 Northbound at B5295 O/S	1	1	J		658	1945	33	0.00	64	41	22.84	13.66	67.37
3	1						538	Unrestricted	64	5.00	0	Unrestricted	8.51	0.00	0.00
4	1						665	Unrestricted	64	22.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		678	1985	26	0.00	81	11	37.35	15.23	79.61
6	1	A595 Northbound N/S					612	813	64	5.00	75	20	36.07	12.10	50.92
7	1	A595 Northbound Feeder Lane					917	Unrestricted	64	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					373	Unrestricted	64	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						538	691	64	5.00	78	16	42.79	18.62	49.39
10	1	A595 Southbound	1	1	H		665	1975	33	0.00	63	42	39.22	16.03	83.33
11	1	A595 Northbound Right Turn Pocket		1	J		0	445	33	34.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		59	1911	20	3.00	9	857	15.99	13.15	43.90
13	1	Inkermant Terrace Right Turn		2	D		644 <	1929	26	0.00	79	14	23.62	20.26	56.04
14	1						678	Unrestricted	64	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkermant Terrace Feeder Lane					703	Unrestricted	64	27.00	0	Unrestricted	17.32	4.45	39.54
16	1	A595 Southbound N/S	2	2	A		559	1905	26	0.00	70	29	28.63	20.20	81.32
	2	A595 Southbound O/S	2	2	A		67	1874	26	0.15	9	956	19.93	11.42	58.15
17	1	A595 Southbound Right Turn		2	A	B	67 <	155	26	0.00	102	-12	324.50	321.59	307.99
18	1						737	Unrestricted	64	4.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					626	Unrestricted	64	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1119.51	67.98	10.23	30.66	435.41	49.48	0.00	484.89
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1119.51	67.98	10.23	30.66	435.41	49.48	0.00	484.89

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | **P.I. = PERFORMANCE INDEX**



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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:32:56

«A3 - 2032 AM Peak No Dev : D3 - 2032 AM Peak No Dev* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A3 - 2032 AM Peak No Dev

D3 - 2032 AM Peak No Dev*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
3	28/02/2022 11:32:27	28/02/2022 11:32:28	08:00	64	564.78	35.88	92.01	6/1	1	4	10/1	6/1	6/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 AM Peak No Dev		D3	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 AM Peak No Dev				08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
64		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	64

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	461	461
2	1	315	315
	2	541	541
3	1	455	455
4	1	840	840
5	1	588	588
6	1	729	729
7	1	856	856
8	1	461	461
9	1	455	455
10	1	840	840
11	1	0	0
12	1	45	45
13	1	627	627
14	1	863	863
15	1	672	672
16	1	668	668
	2	134	134
17	1	134	134
18	1	633	633
19	1	802	802

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	315	541	0
	2	262	0	45	365
	3	578	134	0	90
	4	0	414	47	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	315
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	414
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	262
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	365
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	541
	8		2	3	15/1, 12/1, 18/1	Normal	45
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	47
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	90
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	578
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	134

Signal Timings

Network Default: 64s cycle time; 64 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	64

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	38, 0

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	7	38	31	1	7
	2	✓	2	I	44	0	20	1	7

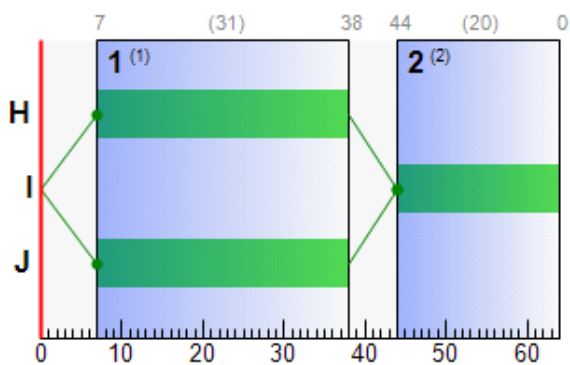
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	7	38	31
	I	1	✓	44	0	20
	J	1	✓	7	38	31

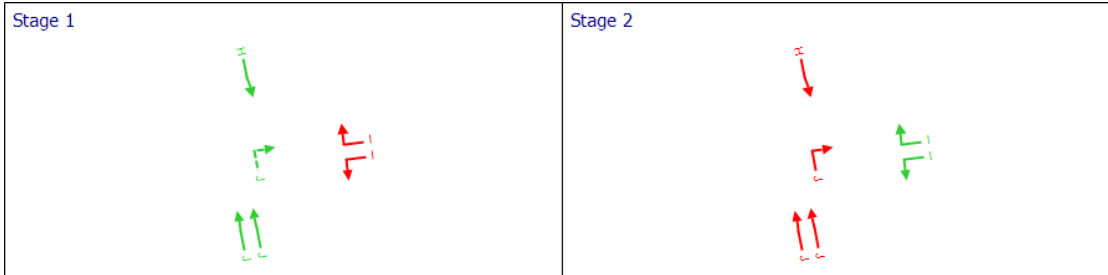
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	44	0	20
1	2	2	1	I	44	0	20
2	1	1	1	J	7	38	31
2	2	1	1	J	7	38	31
10	1	1	1	H	7	38	31
11	1		1	J	7	38	31

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	64

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	G	3	1	2
	4	Losing	F	1	3	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	34, 54

Intergreen Matrix for Controller Stream 2

		To						
		A	B	C	D	E	F	G
From	A				6			6
	B			6	6			6
	C		6		6	9		9
	D	6	5	6				
	E			6			6	
	F					7		
	G	15	15	15				

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	6
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	7	34	27	1	7
	2	✓	3	E,D,G	45	54	9	1	8

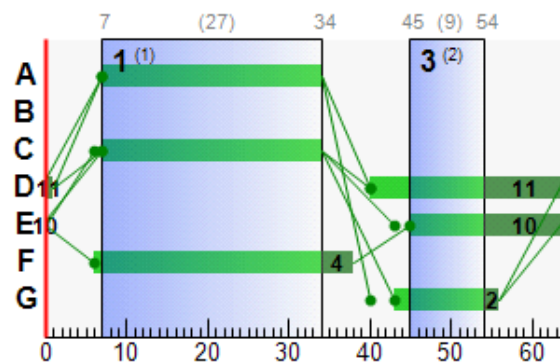
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	7	34	27
	C	1	✓	7	34	27
	D	1	✓	40	1	25
	E	1	✓	45	0	19
	F	1	✓	6	38	32
	G	1	✓	43	56	13

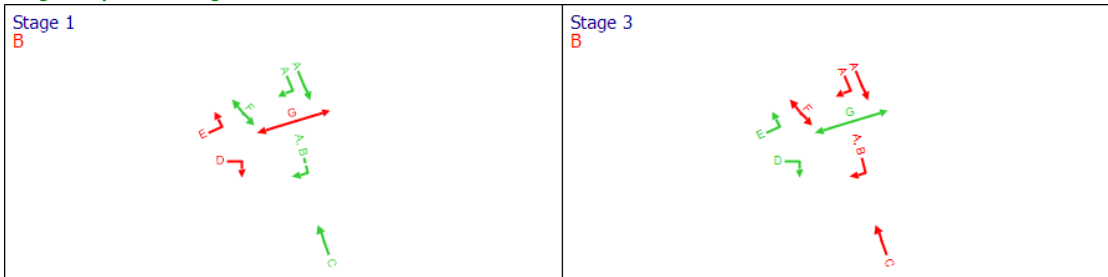
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	7	34	27
12	1	2	2	E	45	0	19
13	1		2	D	40	1	25
16	1	2	2	A	7	34	27
16	2	2	2	A	7	34	27
17	1		2	A	7	34	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
3	28/02/2022 11:32:27	28/02/2022 11:32:28	08:00	64	564.78	35.88	92.01	6/1	1	4	10/1	6/1	6/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	92	-2	11119	956	11.62	509.49	55.28	564.78

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
08:00-09:00	11119	11119	0		92	✓	-2	1046

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	12.83	11.62	35.88	509.49	39.65	4409.12	55.28

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
08:00-09:00	131.09	0.00	138.92

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	564.78

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

		To			
		1	2	3	4
From	1	0.0	100.7	93.1	0.0
	2	100.1	0.0	50.2	85.7
	3	101.2	91.0	0.0	75.6
	4	0.0	116.1	94.5	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	315	100.74	315	100.74
4	4	2	414	116.07	414	116.07
5	2	1	262	100.09	262	100.09
6	2	4	365	85.75	365	85.75
7	1	3	541	93.05	541	93.05
8	2	3	45	50.17	45	50.17
9	4	3	47	94.46	47	94.46
10	3	4	90	75.56	90	75.56
11	3	1	578	101.20	578	101.20
12	3	2	134	91.03	134	91.03

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	20	21.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		461	1820	20	0.00	77	17	37.02	29.26	95.71
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		315	1955	31	0.48	33	175	19.78	10.61	57.43
	2	A595 Northbound at B5295 O/S	1	1	J		541	1945	31	0.00	56	62	22.58	13.40	66.01
3	1						455	Unrestricted	64	4.00	0	Unrestricted	8.51	0.00	0.00
4	1						840	Unrestricted	64	20.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		588	1985	27	8.00	68	33	47.02	24.90	74.03
6	1	A595 Northbound N/S					729	792	64	4.00	92	-2	55.76	31.79	79.39
7	1	A595 Northbound Feeder Lane					856	Unrestricted	64	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					461	Unrestricted	64	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						455	691	64	5.00	66	37	33.84	9.67	31.22
10	1	A595 Southbound	1	1	H		840	1975	31	3.00	85	6	49.47	26.27	85.62
11	1	A595 Northbound Right Turn Pocket		1	J		0	126	31	32.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		45	1911	19	7.00	8	1094	16.56	13.72	45.00
13	1	Inkermant Terrace Right Turn		2	D		627 <	1929	25	0.00	80	12	24.98	21.62	58.33
14	1						863	Unrestricted	64	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkerman Terrace Feeder Lane					672	Unrestricted	64	28.00	0	Unrestricted	17.33	4.46	39.62
16	1	A595 Southbound N/S	2	2	A		668	1905	27	0.00	80	12	32.50	24.07	89.74
	2	A595 Southbound O/S	2	2	A		134	1874	27	0.44	17	442	20.03	11.51	56.94
17	1	A595 Southbound Right Turn		2	A	B	134	401	27	1.00	76	18	47.73	44.82	169.10
18	1						633	Unrestricted	64	5.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					802	Unrestricted	64	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1188.97	75.51	9.78	35.88	509.49	55.28	0.00	564.78
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1188.97	75.51	9.78	35.88	509.49	55.28	0.00	564.78

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | **P.I. = PERFORMANCE INDEX**



TRANSYT 15	
Version: 15.5.2.7994 © Copyright TRL Limited, 2018	
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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:38:38

«A4 - 2032 AM Peak With Dev : D4 - 2032 AM Peak With Dev* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A4 - 2032 AM Peak With Dev

D4 - 2032 AM Peak With Dev*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
4	28/02/2022 11:38:31	28/02/2022 11:38:31	08:00	64	672.72	43.03	94.41	6/1	1	4	13/1	6/1	6/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 AM Peak With Dev		D4	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 AM Peak With Dev				08:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
64		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	64

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	490	490
2	1	315	315
	2	541	541
3	1	550	550
4	1	840	840
5	1	598	598
6	1	748	748
7	1	856	856
8	1	490	490
9	1	550	550
10	1	840	840
11	1	0	0
12	1	45	45
13	1	690	690
14	1	882	882
15	1	735	735
16	1	700	700
	2	134	134
17	1	134	134
18	1	643	643
19	1	834	834

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	315	541	0
	2	262	0	45	428
	3	578	134	0	122
	4	0	433	57	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	315
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	433
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	262
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	428
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	541
	8		2	3	15/1, 12/1, 18/1	Normal	45
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	57
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	122
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	578
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	134

Signal Timings

Network Default: 64s cycle time; 64 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	64

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	38, 0

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	7	38	31	1	7
	2	✓	2	I	44	0	20	1	7

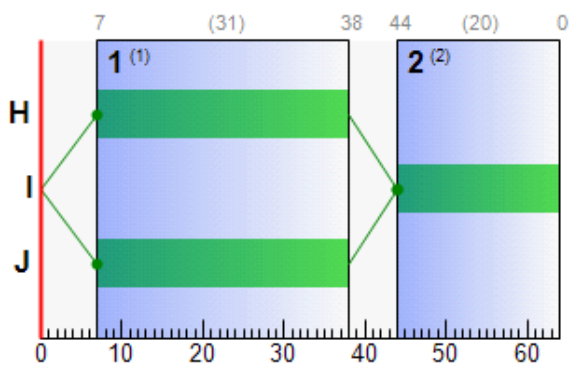
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	7	38	31
	I	1	✓	44	0	20
	J	1	✓	7	38	31

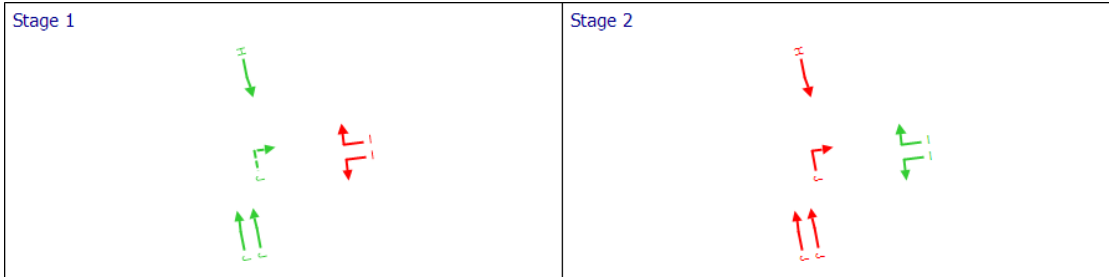
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	44	0	20
1	2	2	1	I	44	0	20
2	1	1	1	J	7	38	31
2	2	1	1	J	7	38	31
10	1	1	1	H	7	38	31
11	1		1	J	7	38	31

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	64

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	B	2	3	3
	4	Losing	G	3	1	2
	5	Losing	F	1	3	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	34, 54

Intergreen Matrix for Controller Stream 2

		To							
		A	B	C	D	E	F	G	
From	A				6			6	
	B			6	6			6	
	C		6		6	9		9	
	D	6	5	6					
	E			6			6		
	F					7			
	G	15	15	15					

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	9
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	7	34	27	1	7
	2	✓	3	E,D,G	45	54	9	1	8

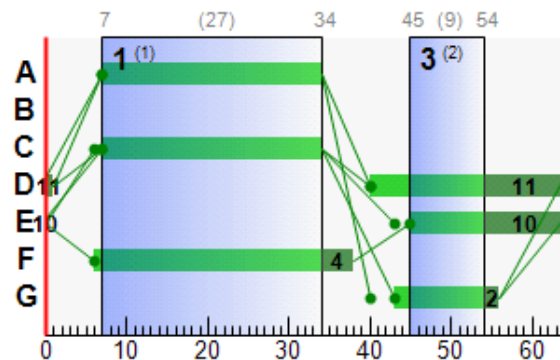
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	7	34	27
	C	1	✓	7	34	27
	D	1	✓	40	1	25
	E	1	✓	45	0	19
	F	1	✓	6	38	32
	G	1	✓	43	56	13

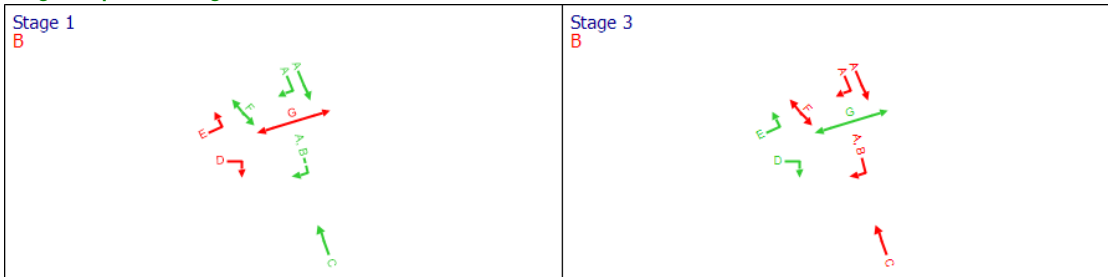
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	7	34	27
12	1	2	2	E	45	0	19
13	1		2	D	40	1	25
16	1	2	2	A	7	34	27
16	2	2	2	A	7	34	27
17	1		2	A	7	34	27

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
08:00-09:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
4	28/02/2022 11:38:31	28/02/2022 11:38:31	08:00	64	672.72	43.03	94.41	6/1	1	4	13/1	6/1	6/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s per cycle)	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
08:00-09:00	94	-5	11615	956	13.34	610.99	61.73	672.72

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s per cycle)
08:00-09:00	11615	11615	0		94	✓	-5	1046

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
08:00-09:00	12.81	13.34	43.03	610.99	42.38	4922.81	61.73

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s per cycle)
08:00-09:00	159.91	0.00	139.92

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
08:00-09:00	0.00	0.00	✓	1.00	0.00	0.00	672.72

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To				
From		1	2	3	4
	1	0.0	109.0	93.3	0.0
	2	107.4	0.0	51.3	100.5
	3	104.5	104.7	0.0	86.0
	4	0.0	126.9	98.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	315	109.03	315	109.03
4	4	2	433	126.91	433	126.91
5	2	1	262	107.37	262	107.37
6	2	4	428	100.51	428	100.51
7	1	3	541	93.28	541	93.28
8	2	3	45	51.30	45	51.30
9	4	3	57	98.15	57	98.15
10	3	4	122	86.02	122	86.02
11	3	1	578	104.45	578	104.45
12	3	2	134	104.72	134	104.72

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	20	21.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		490	1820	20	0.00	82	10	40.68	32.91	102.12
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		315	1955	31	0.48	33	175	19.78	10.61	57.43
	2	A595 Northbound at B5295 O/S	1	1	J		541	1945	31	0.00	56	62	22.58	13.40	66.01
3	1						550	Unrestricted	64	3.00	0	Unrestricted	8.51	0.00	0.00
4	1						840	Unrestricted	64	20.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		598	1985	27	8.00	69	31	47.04	24.92	74.42
6	1	A595 Northbound N/S					748	792	64	3.00	94	-5	63.39	39.42	90.44
7	1	A595 Northbound Feeder Lane					856	Unrestricted	64	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					490	Unrestricted	64	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						550	691	64	5.00	80	13	40.69	16.53	42.35
10	1	A595 Southbound	1	1	H		840	1975	31	2.00	85	6	49.57	26.38	86.33
11	1	A595 Northbound Right Turn Pocket		1	J		0	125	31	32.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		45	1911	19	3.00	8	1094	15.90	13.06	40.80
13	1	Inkermant Terrace Right Turn		2	D		690 <	1929	25	0.00	88	2	31.15	27.79	63.75
14	1						882	Unrestricted	64	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkermant Terrace Feeder Lane					735	Unrestricted	64	37.00	0	Unrestricted	19.13	6.26	47.94
16	1	A595 Southbound N/S	2	2	A		700 <	1905	27	0.00	84	7	35.29	26.86	94.31
	2	A595 Southbound O/S	2	2	A		134	1874	27	0.44	17	442	20.03	11.51	56.94
17	1	A595 Southbound Right Turn		2	A	B	134	373	27	1.00	82	10	61.42	58.50	192.36
18	1						643	Unrestricted	64	4.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					834	Unrestricted	64	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1240.11	84.36	9.13	43.03	610.99	61.73	0.00	672.72
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1240.11	84.36	9.13	43.03	610.99	61.73	0.00	672.72

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | **P.I. = PERFORMANCE INDEX**



TRANSYT 15	
Version: 15.5.2.7994 © Copyright TRL Limited, 2018	
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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:36:52

«A5 - 2032 PM Peak No Dev : D5 - 2032 PM Peak No Dev* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A5 - 2032 PM Peak No Dev

D5 - 2032 PM Peak No Dev*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
5	28/02/2022 11:36:26	28/02/2022 11:36:27	17:00	70	736.15	47.94	90.27	13/1	1	4	13/1	6/1	13/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 PM Peak No Dev		D5	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 PM Peak No Dev				17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
70		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	70

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	398	398
2	1	277	277
	2	704	704
3	1	575	575
4	1	711	711
5	1	725	725
6	1	654	654
7	1	981	981
8	1	398	398
9	1	575	575
10	1	711	711
11	1	0	0
12	1	63	63
13	1	689	689
14	1	725	725
15	1	752	752
16	1	597	597
	2	71	71
17	1	71	71
18	1	788	788
19	1	668	668

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	277	704	0
	2	185	0	63	504
	3	526	71	0	71
	4	0	377	21	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	277
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	377
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	185
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	504
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	704
	8		2	3	15/1, 12/1, 18/1	Normal	63
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	21
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	71
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	526
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	71

Signal Timings

Network Default: 70s cycle time; 70 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	70

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	35, 66

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	3	35	32	1	7
	2	✓	2	I	41	66	25	1	7

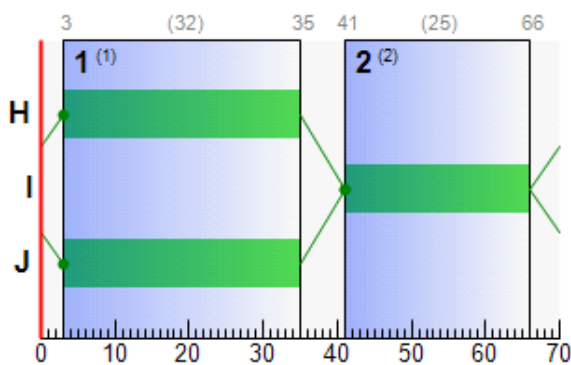
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	3	35	32
	I	1	✓	41	66	25
	J	1	✓	3	35	32

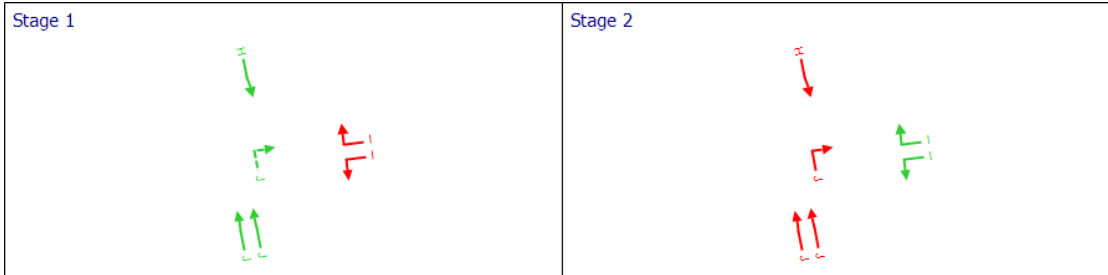
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	41	66	25
1	2	2	1	I	41	66	25
2	1	1	1	J	3	35	32
2	2	1	1	J	3	35	32
10	1	1	1	H	3	35	32
11	1		1	J	3	35	32

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	70

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	G	3	1	2
	4	Losing	F	1	3	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	47, 66

Intergreen Matrix for Controller Stream 2

		To						
		A	B	C	D	E	F	G
From	A				6			6
	B			6	6			6
	C		6		6	9		9
	D	6	5	6				
	E			6			6	
	F					7		
	G	15	15	15				

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	6
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	13	47	34	1	7
	2	✓	3	E,D,G	58	66	8	1	8

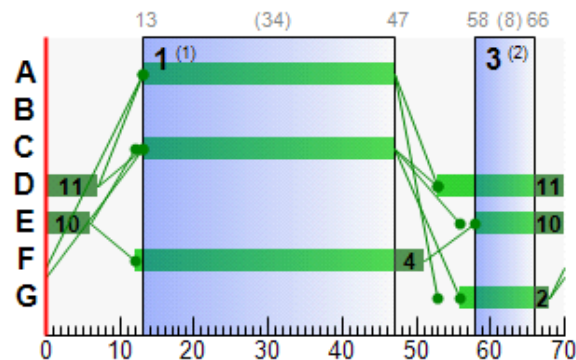
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	13	47	34
	C	1	✓	13	47	34
	D	1	✓	53	7	24
	E	1	✓	58	6	18
	F	1	✓	12	51	39
	G	1	✓	56	68	12

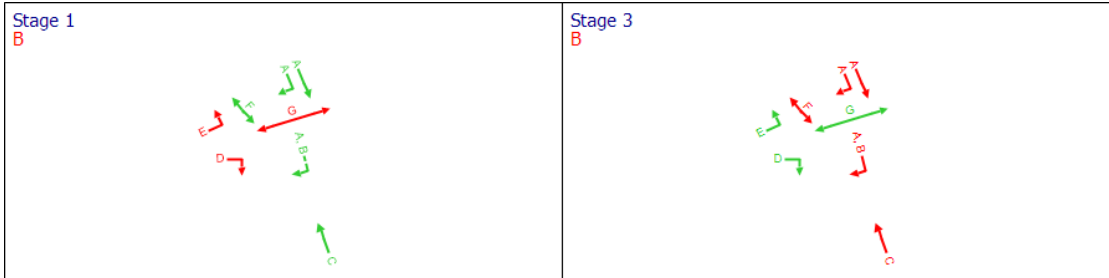
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	13	47	34
12	1	2	2	E	58	6	18
13	1		2	D	53	7	24
16	1	2	2	A	13	47	34
16	2	2	2	A	13	47	34
17	1		2	A	13	47	34

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
5	28/02/2022 11:36:26	28/02/2022 11:36:27	17:00	70	736.15	47.94	90.27	13/1	1	4	13/1	6/1	13/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	90	0	10846	1056	15.91	680.82	55.33	736.15

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	10846	10846	287	✓	90	✓	0	1158

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.92	15.91	47.94	680.82	40.69	4412.85	55.33

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	173.65	0.00	174.62

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	736.15

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To				
From		1	2	3	4
	1	0.0	83.1	84.8	0.0
	2	188.7	0.0	136.3	192.7
	3	104.1	76.9	0.0	78.2
	4	0.0	93.7	93.5	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	277	83.12	277	83.12
4	4	2	377	93.66	377	93.66
5	2	1	185	188.72	185	188.72
6	2	4	504	192.68	504	192.68
7	1	3	704	84.84	704	84.84
8	2	3	63	136.25	63	136.25
9	4	3	21	93.45	21	93.45
10	3	4	71	78.25	71	78.25
11	3	1	526	104.07	526	104.07
12	3	2	71	76.90	71	76.90

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	25	26.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		398	1820	25	0.00	59	53	29.26	21.49	77.90
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		277	1955	32	0.48	30	195	21.61	12.43	59.68
	2	A595 Northbound at B5295 O/S	1	1	J		704	1945	32	0.00	77	17	30.87	21.70	82.67
3	1						526	Unrestricted	70	5.00	0	Unrestricted	8.51	0.00	0.00
4	1						693	Unrestricted	70	32.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		725	1985	34	7.00	73	23	31.83	9.71	23.46
6	1	A595 Northbound N/S					654	811	70	5.00	81	12	39.07	15.10	54.46
7	1	A595 Northbound Feeder Lane					981	Unrestricted	70	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					398	Unrestricted	70	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						526	691	70	5.00	76	18	42.91	18.75	50.94
10	1	A595 Southbound	1	1	H		693	1975	32	5.00	74	21	55.88	32.68	98.55
11	1	A595 Northbound Right Turn Pocket		1	J		0	289	32	33.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		57	1911	18	2.00	11	721	22.06	19.21	41.41
13	1	Inkermant Terrace Right Turn		2	D		622 <	1929	24	0.00	90	0	42.93	39.57	69.60
14	1						725	Unrestricted	70	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkerman Terrace Feeder Lane					679	Unrestricted	70	52.00	0	Unrestricted	97.92	85.05	131.71
16	1	A595 Southbound N/S	2	2	A		597	1905	34	0.00	63	44	24.33	15.90	69.51
	2	A595 Southbound O/S	2	2	A		71	1874	34	0.15	8	1083	17.87	9.35	50.23
17	1	A595 Southbound Right Turn		2	A	B	71	266	34	0.00	53	69	35.76	32.85	109.20
18	1						782	Unrestricted	70	2.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					668	Unrestricted	70	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1167.38	86.86	8.35	47.94	680.82	55.33	0.00	736.15
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1167.38	86.86	8.35	47.94	680.82	55.33	0.00	736.15

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | **P.I. = PERFORMANCE INDEX**



TRANSYT 15	
Version: 15.5.2.7994 © Copyright TRL Limited, 2018	
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Filename: A595 - Inkerman Terrace - Existing Arrangement.t15

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction A595 Inkerman Terrace

Report generation date: 28/02/2022 11:40:15

«A6 - 2032 PM Peak With Dev : D6 - 2032 PM Peak With Dev* :

- »Summary
- »Network Options
- »Arms and Traffic Streams
- »Pedestrian Crossings
- »T-Junctions
- »Local OD Matrix - Local Matrix: 1
- »Signal Timings
- »Network Results
- »Point to Point Journey Time
- »Final Prediction Table

File summary

File description

File title	A595/ B5295 Ribton Moorside/ Inkerman Terrace
Location	Whitehaven
Site number	Leconfield Industrial Estate
UTCRegion	
Driving side	Left
Date	14/02/2022
Version	
Status	Transport Assessment
Identifier	GW
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\GARETH.WAKENSHAW
Description	Existing Arrangement

Model and Results

Enable controller offsets	Enable fuel consumption	Enable quick flares	Display journey time results	Display level of service results	Display blocking and starvation results	Display end of red and green queue results	Display excess queue results	Display separate uniform and random results	Display unweighted results	Display TRANSYT 12 style timings	Display effective greens in results	Display Red-With-Amber	Display End-Of-Green Amber

Units

Cost units	Speed units	Distance units	Fuel economy units	Fuel rate units	Mass units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
£	mph	m	mpg	l/h	kg	PCU	PCU	perHour	s	-Hour	perHour

Sorting

Show names instead of IDs	Sorting direction	Sorting type	Ignore prefixes when sorting	Analysis/demand set sorting	Link grouping	Source grouping	Colour Analysis/Demand Sets
	Ascending	Numerical		ID	Normal	Normal	✓

A6 - 2032 PM Peak With Dev

D6 - 2032 PM Peak With Dev*

Summary

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Traffic Stream Data	Arm 9 - Traffic Stream 1	Arm 9 - Traffic Stream 1 is over 200m. Recommend the use of PDM to model platooning effects.
Warning	Pedestrian Crossing Data	Pedestrian crossing 1	Pedestrian Crossing 1: Traffic Node ID 2 is missing.
Warning	Pedestrian Crossing Data	Pedestrian crossing 2	Pedestrian Crossing 2: Traffic Node ID 2 is missing.
Warning	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in the current stage sequence.
Info	Traffic Stream Signals	Arm 17 - Traffic Stream 1 - Signals (2, A/B)	Traffic Stream 1 controlling phase B never runs in stage sequence 1.
Info	T-Junction Geometry	T-Junction 1	T-Junction 1: TRANSYT using double the user-specified Total Carriageway Width.
Info	T-Junction Geometry	T-Junction 2	T-Junction 2: TRANSYT using double the user-specified Total Carriageway Width.

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst overall PRC
6	28/02/2022 11:40:07	28/02/2022 11:40:07	17:00	70	801.06	52.32	90.34	13/1	1	4	13/1	6/1	13/1

Analysis Set Details

Name	Description	Demand set	Include in report	Locked
2032 PM Peak With Dev		D6	✓	

Demand Set Details

Name	Description	Composite	Demand sets	Start time (HH:mm)	Locked
2032 PM Peak With Dev				17:00	

Network Options

Network timings

Network cycle time (s)	Restrict to SCOOT cycle times	Time segment length (min)	Number of time segments	Modelled time period (min)
70		60	1	60

Signals options

Start displacement (s)	End displacement (s)
2	3

Advanced

Phase minimum broken penalty (£)	Phase maximum broken penalty (£)	Intergreen broken penalty (£)	Starting Red-with-Amber (s)
10000.00	10000.00	10000.00	2

Traffic options

Traffic model	Vehicle flow scaling factor (%)	Pedestrian flow scaling factor (%)	Cruise times or speeds
Platoon Dispersion (PDM)	100	100	Cruise Speeds

Advanced

Resolution	DOS Threshold (%)	Cruise scaling factor (%)	Use link stop weightings	Use link delay weightings	Exclude pedestrians from results calculation	Random delay mode	Type of Vehicle-in-Service	Type of random parameter	PCU Length (m)	Calculate results for Path Segments	Generate PDM Profile Data
1	90	100	✓	✓		Complex	Uniform (TRANSYT)	Uniform (TRANSYT)	5.75		✓

Normal Traffic parameters

Dispersion type	Dispersion coefficient	Travel time coefficient
Default	35	80

Normal Traffic Types

Name	PCU Factor
Normal	1.00

Bus parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Bus	1.00	Default	0.94	30	85

Tram parameters

Name	PCU Factor	Dispersion type	Acceleration (ms ² [-2])	Stationary time coefficient	Cruise time coefficient
Tram	1.00	Default	0.94	100	100

Pedestrian parameters

Dispersion type
Default

Optimisation options

Enable optimisation	Auto redistribute	Optimisation level	Enable OUT Profile accuracy
✓	✓	Offsets And Green Splits	✓

Advanced

Optimisation type	Hill climb increments	OUTProfile accuracy	Use enhanced optimisation	Auto optimisation order	Optimisation order	Master controller	Offsets relative to master controller	Master controller offset after each run
Hill Climb (Fast)	15, 40, -1, 15, 40, 1, -1, 1	50, 50, 5, 5, 0.5, 0.5, 0.05, 0.05		✓	1, 2			Do nothing

Economics

Vehicle Monetary Value Of Delay (£ per PCU-hr)	Vehicle Monetary Value Of Stops (£ per 100 stops)	Pedestrian monetary value of delay (£ per Ped-hr)
14.20	2.60	14.20

Arms and Traffic Streams

Arms

Arm	Name	Description	Traffic node
1		B5295 Ribton Moorside	2
2	A595 Northbound at B5295		1
3			
4			
5	A595 Northbound at Inkermant Terrace		2
6			
7	A595 Northbound Feeder Lane		
8	B5295 Ribton Moorside Feeder Lane		
9			
10	A595 Southbound at B5295		1
11	A595 Northbound Right Turn Pocket		
12	Inkerman Terrace		2
13			
14			
15	Inkerman Terrace Feeder Lane		
16	A595 Southbound		2
17			
18			
19	A595 Southbound Feeder Lane		

Traffic Streams

Arm	Traffic Stream	Name	Description	Auto length	Length (m)	Has Saturation Flow	Saturation flow source	Saturation flow (PCU/hr)	Auto-calculate cell saturation flow	Cell saturation flow (PCU/hr)	Is signal controlled	Is give way	Traffic type	Allow Nearside Turn On Red
1	1	B5295 Ribton Moorside N/S		✓	62.51	✓	Sum of lanes	1965		1965	✓		Normal	
	2	B5295 Ribton Moorside O/S		✓	64.72	✓	Sum of lanes	1820		1820	✓		Normal	
2	1	A595 Northbound at B5295 N/S Lane		✓	76.44	✓	Sum of lanes	1955		1955	✓		Normal	
	2	A595 Northbound at B5295 O/S		✓	76.49	✓	Sum of lanes	1945		1945	✓		Normal	
3	1			✓	70.89								Normal	
4	1			✓	102.54								Normal	
5	1	A595 Northbound O/S		✓	184.33	✓	Sum of lanes	1985		1985	✓		Normal	
6	1	A595 Northbound N/S		✓	199.71				✓	1800		✓	Normal	
7	1	A595 Northbound Feeder Lane		✓	51.44				✓	1800			Normal	
8	1	B5295 Ribton Moorside Feeder Lane		✓	48.34				✓	1800			Normal	
9	1			✓	201.39				✓	1800		✓	Normal	
10	1	A595 Southbound		✓	193.29	✓	Sum of lanes	1975		1975	✓		Normal	
11	1	A595 Northbound Right Turn Pocket		✓	18.47	✓	Sum of lanes	1835			✓	✓	Normal	
12	1	Inkermant Terrace Left Turn		✓	23.70	✓	Sum of lanes	1911			✓		Normal	
13	1	Inkermant Terrace Right Turn		✓	28.02	✓	Sum of lanes	1929			✓		Normal	
14	1			✓	151.30								Normal	
15	1	Inkerman Terrace Feeder Lane		✓	107.28				✓	1800			Normal	
16	1	A595 Southbound N/S		✓	70.24	✓	Sum of lanes	1905		1905	✓		Normal	
	2	A595 Southbound O/S		✓	70.94	✓	Sum of lanes	1874		1874	✓		Normal	
17	1	A595 Southbound Right Turn		✓	24.30	✓	Sum of lanes	1597		1597	✓	✓	Normal	
18	1			✓	135.60								Normal	
19	1	A595 Southbound Feeder Lane		✓	42.63								Normal	

Lanes

Arm	Traffic Stream	Lane	Name	Description	Use RR67	Surface condition	Site quality factor	Gradient (%)	Width (m)	Use connector turning radius	Proportion that turn (%)	Turning radius (m)	Nearside lane	Saturation flow (PCU/hr)
1	1	1	(untitled)	B5295 Ribton Moorside N/S	✓	N/A	N/A	0	3.50	✓	0	9.72	✓	1965
	2	1	(untitled)	B5295 Ribton Moorside O/S	✓	N/A	N/A	0	3.50	✓	100	18.80	✓	1820
2	1	1	(untitled)	A595 Northbound at B5295 N/S	✓	N/A	N/A	0	3.40	✓	0	99999.00	✓	1955
	2	1	(untitled)	A595 Northbound at B5295 O/S	✓	N/A	N/A	0	3.30	✓	0	99999.00	✓	1945
3	1	1	(untitled)											
4	1	1	(untitled)											
5	1	1	(untitled)	A595 Northbound O/S	✓	N/A	N/A	0	3.70	✓	0	99999.00	✓	1985
6	1	1	A595 Northbound N/S											
7	1	1	A595 Northbound Feeder Lane											
8	1	1	B5295 Ribton Moorside Feeder Lane											
9	1	1	(untitled)											
10	1	1	(untitled)		✓	N/A	N/A	0	3.60	✓	0	99999.00	✓	1975
11	1	1	A595 Northbound Right Turn Pocket		✓	N/A	N/A	0	2.20	✓	0	6.00	✓	1835
12	1	1	(untitled)	Inkermant Terrace Left Turn	✓	N/A	N/A	0	4.80	✓	100	15.59	✓	1911
13	1	1	(untitled)	Inkermant Terrace Right Turn	✓	N/A	N/A	0	4.40	✓	100	23.02	✓	1929
14	1	1	(untitled)											
15	1	1	Inkerman Terrace Feeder Lane											
16	1	1	(untitled)	A595 Southbound N/S	✓	N/A	N/A	0	2.90	✓	0	99999.00	✓	1905
	2	1	(untitled)	A595 Southbound O/S	✓	N/A	N/A	0	2.90	✓	100	91.92	✓	1874
17	1	1	(untitled)	A595 Southbound Right Turn	✓	N/A	N/A	0	3.00	✓	100	7.53	✓	1597
18	1	1	(untitled)											
19	1	1	A595 Southbound Feeder Lane											

Modelling

Arm	Traffic Stream	Traffic model	Stop weighting multiplier (%)	Delay weighting multiplier (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (PCU)	Has queue limit	Has degree of saturation limit
1	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
2	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
3	1	NetworkDefault	100	100	100		0.00		
4	1	NetworkDefault	100	100	100		0.00		
5	1	CTM	100	100	100		0.00		
6	1	CTM	100	100	100		0.00		
7	1	Flare	100	100	100		0.00		
8	1	Flare	100	100	100		0.00		
9	1	CTM	100	100	100		0.00		
10	1	CTM	100	100	100		0.00		
11	1	Flare	100	100	100		0.00		
12	1	Flare	100	100	100		0.00		
13	1	Flare	100	100	100		0.00		
14	1	NetworkDefault	100	100	100		0.00		
15	1	Flare	100	100	100		0.00		
16	1	Flare	100	100	100		0.00		
	2	Flare	100	100	100		0.00		
17	1	CTM	100	100	100		0.00		
18	1	NetworkDefault	100	100	100		0.00		
19	1	NetworkDefault	100	100	100		0.00		

Modelling - Advanced

Arm	Traffic Stream	Initial queue (PCU)	Type of Vehicle-in-Service	Vehicle-in-Service	Type of random parameter	Random parameter	Auto cycle time	Cycle time
(ALL)	(ALL)	0.00	NetworkDefault	Not-Included	NetworkDefault	0.50	✓	70

Normal traffic - Modelling

Arm	Traffic Stream	Stop weighting (%)	Delay weighting (%)
(ALL)	(ALL)	100	100

Normal traffic - Advanced

Arm	Traffic Stream	Dispersion type for Normal Traffic
(ALL)	(ALL)	NetworkDefault

Flows

Arm	Traffic Stream	Total Flow (PCU/hr)	Normal Flow (PCU/hr)
1	1	0	0
	2	497	497
2	1	277	277
	2	704	704
3	1	595	595
4	1	711	711
5	1	759	759
6	1	719	719
7	1	981	981
8	1	497	497
9	1	595	595
10	1	711	711
11	1	0	0
12	1	63	63
13	1	702	702
14	1	790	790
15	1	765	765
16	1	604	604
	2	71	71
17	1	71	71
18	1	822	822
19	1	675	675

Signals

Arm	Traffic Stream	Controller stream	Phase	Second phase enabled	Second phase
1	1	1	I		
	2	1	I		
2	1	1	J		
	2	1	J		
5	1	2	C		
10	1	1	H		
11	1	1	J		
12	1	2	E		
13	1	2	D		
16	1	2	A		
	2	2	A		
17	1	2	A	✓	B

Entry Sources

Arm	Traffic Stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)
7	1	6.17	18.64
8	1	5.80	18.64
15	1	12.87	18.64
19	1	5.12	18.64

Sources

Arm	Traffic Stream	Source	Source traffic stream	Destination traffic stream	Cruise time for Normal Traffic (s)	Cruise speed for Normal Traffic (mph)	Auto turning radius	Traffic turn style	Turning radius (m)
1	1	1	8/1	1/1	7.50	18.64	✓	Nearside	86.05
	2	1	8/1	1/2	7.77	18.64	✓	Nearside	88.32
2	1	1	7/1	2/1	9.17	18.64	✓	Straight	Straight Movement
	2	1	7/1	2/2	9.18	18.64	✓	Straight	Straight Movement
3	1	1	9/1	3/1	8.51	18.64	✓	Nearside	9.44
4	1	1	1/1	4/1	12.30	18.64	✓	Nearside	9.72
5	1	1	2/2	5/1	22.12	18.64	✓	Straight	Straight Movement
6	1	1	2/1	6/1	23.97	18.64	✓	Straight	Straight Movement
9	1	1	16/1	9/1	24.17	18.64	✓	Straight	Straight Movement
10	1	1	16/1	10/1	23.19	18.64	✓	Straight	Straight Movement
11	1	1	2/2	11/1	2.22	18.64	✓	Straight	Straight Movement
12	1	1	15/1	12/1	2.84	18.64	✓	Nearside	14.95
13	1	1	15/1	13/1	3.36	18.64	✓	Straight	Straight Movement
14	1	1	6/1	14/1	18.16	18.64	✓	Nearside	13.62
16	1	1	19/1	16/1	8.43	18.64	✓	Straight	Straight Movement
	2	1	19/1	16/2	8.51	18.64	✓	Straight	Straight Movement
17	1	1	16/2	17/1	2.92	18.64	✓	Offside	91.92
18	1	1	5/1	18/1	16.27	18.64	✓	Straight	Straight Movement
3	1	2	11/1	3/1	8.51	18.64	✓	Offside	6.00
4	1	2	10/1	4/1	12.30	18.64	✓	Straight	Straight Movement
5	1	2	1/2	5/1	22.12	18.64	✓	Offside	18.96
6	1	2	1/2	6/1	23.97	18.64	✓	Offside	18.80
9	1	2	13/1	9/1	24.17	18.64	✓	Offside	23.02
10	1	2	13/1	10/1	23.19	18.64	✓	Offside	23.54
14	1	2	17/1	14/1	18.16	18.64	✓	Offside	7.53
18	1	2	12/1	18/1	16.27	18.64	✓	Nearside	15.59

Give Way Data

Arm	Traffic Stream	Opposed traffic	Use Step-wise Opposed Turn Model	Number of storage spaces	Use connector turning radius	Radius of turn (m)	Visibility restricted
6	1	Movement					
9	1	Movement					
11	1	AllTraffic	✓	0	✓	6.00	
17	1	AllTraffic	✓	0	✓	7.53	

Give Way Data - All Movements - Conflicts

Traffic Stream	Description	Controlling type	Controlling traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
1		TrafficStream	10/1	100			1	2
		TrafficStream	5/1	100			1	2

Give Way Data - Movements

Arm	Traffic Stream	Movement	Destination traffic stream	Max Flow (Opposed) (PCU/hr)	Max Flow (Unopposed) (PCU/hr)	Max congested capacity (PCU/hr)	Percentage opposed (%)
6	1	1	14/1	833	833	0	100
9	1	1	3/1	691	691	0	100

Give Way Data - Movements - Conflicts

Arm	Traffic Stream	Movement	Destination traffic stream	Description	Controlling type	Controlling from traffic stream	Controlling to traffic stream	Percentage opposing (%)	Slope coefficient	Upstream signals visible	Conflict shift	Conflict duration
6	1	1	14/1	T-junction opposing flow	TrafficStreamMovement	17/1	14/1	100	0.30		0	0
9	1	1	3/1	T-junction opposing flow	TrafficStreamMovement	11/1	3/1	100	0.18		0	0

Pedestrian Crossings

Pedestrian Crossings

Crossing	Name	Description	Traffic node	Allow walk on red	Crossing type	Length (m)	Cruise time (seconds)	Cruise speed (mph)
1	Peds across Inkerman Terrace		2		Farside	6.00	4.00	3.36
2	Peds across A595		2		Farside	15.00	10.00	3.36

Pedestrian Crossings - Signals

Crossing	Controller stream	Phase	Second phase enabled
1	2	F	
2	2	G	

Pedestrian Crossings - Sides

Crossing	Side	Saturation flow (Ped/hr)
(ALL)	(ALL)	11000

Pedestrian Crossings - Modelling

Crossing	Side	Delay weighting (%)	Assignment Cost Weighting (%)	Exclude from results calculation	Max queue storage (Ped)	Has queue limit	Has degree of saturation limit
(ALL)	(ALL)	100	100		0.00		

T-Junctions

T-Junctions

T-Junction	Name	Description	Auto assign priority	Type	Traffic direction on Arm A	Entry aB	Entry aC	Exit a	Traffic direction on Arm B	Entry bA	Entry bC	Exit b	Traffic direction on Arm C	Entry cA	Entry cB	Exit c	Calc SI a Inte
1	A595/B5295		✓	TrafficStream	Entry Only		11/1		Entry Only		9/1		Exit Only			3/1	
2	A595/Inkerman Terrace		✓	TrafficStream	Entry Only		17/1		Entry Only		6/1		Exit Only			14/1	

T-Junction Majors

T-Junction	Left Carriageway Width (m)	Right Carriageway Width (m)	Kerbed Central Reserve Width (m)	Width for C-B traffic (m)	Visibility for C-B traffic (m)
1	6.60	6.60	0.00	2.20	0.00
2	3.70	3.70	0.00	2.20	0.00

T-Junction Minors

T-Junction	B-C Lane Width (m)	B-A Lane Width (m)	B-C Visibility (m)	B-A Visibility (m)
1	3.70	3.70	100.00	34.00
2	4.20	4.20	42.00	190.00

T-Junction Slope Intercept

T-Junction	BCIntercept (PCU/hr)	BC-aBSlope	BC-aCSlope	BAIntercept (PCU/hr)	BA-aBSlope	BA-aCSlope	BA-cASlope	BA-cBSlope	CBIntercept (PCU/hr)	CB-aBSlope	CB-aCSlope
1	691	0.07	0.18	564	0.07	0.18	0.11	0.25	574	0.15	0.15
2	833	0.12	0.30	656	0.11	0.28	0.18	0.40	574	0.21	0.21

Local OD Matrix - Local Matrix: 1

Local Matrix Options

OD Matrix	Name	Use for point to point table	Auto calculate	Allocation mode	Allow paths past exit locations	Allow looped paths on arms	Allow looped paths on traffic nodes	Copy flows	Matrix to copy flows from	Limit paths by length	Path length limit multiplier	Limit paths by number	Path number limit
1	(untitled)	✓	✓	Path Equalisation			✓			✓	1.25		

Normal Input Flows (PCU/hr)

	To				
	1	2	3	4	
From	1	0	277	704	0
	2	185	0	63	517
	3	526	71	0	78
	4	0	442	55	0

Bus Input Flows not shown as they are blank.

Tram Input Flows not shown as they are blank.

Pedestrian Input Flows not shown as they are blank.

Locations

OD Matrix	Location	Name	Entries	Exits	Colour
1	1	(untitled)	7/1	4/1	#0000FF
	2	(untitled)	15/1	14/1	#FF0000
	3	(untitled)	19/1	18/1	#00FF00
	4	(untitled)	8/1	3/1	#FFFF00

Normal Paths and Flows

OD Matrix	Path	Description	From location	To location	Path items	Allocation type	Normal Calculated Flow (PCU/hr)
1	1		4	1	8/1, 1/1, 4/1	Normal	0
	2		1	4	7/1, 2/2, 11/1, 3/1	Normal	0
	3		1	2	7/1, 2/1, 6/1, 14/1	Normal	277
	4		4	2	8/1, 1/2, 6/1, 14/1	Normal	442
	5		2	1	15/1, 13/1, 10/1, 4/1	Normal	185
	6		2	4	15/1, 13/1, 9/1, 3/1	Normal	517
	7		1	3	7/1, 2/2, 5/1, 18/1	Normal	704
	8		2	3	15/1, 12/1, 18/1	Normal	63
	9		4	3	8/1, 1/2, 5/1, 18/1	Normal	55
	10		3	4	19/1, 16/1, 9/1, 3/1	Normal	78
	11		3	1	19/1, 16/1, 10/1, 4/1	Normal	526
	12		3	2	19/1, 16/2, 17/1, 14/1	Normal	71

Signal Timings

Network Default: 70s cycle time; 70 steps

Controller Stream 1

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
1	A595/ B5295 Ribton Moorside		1	NetworkDefault	70

Controller Stream 1 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
1	Unspecified						Absolute

Controller Stream 1 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
1	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type
1	H	A595 Southbound	7	300	0	0	Traffic
	I	B5295	7	300	0	0	Traffic
	J	A595 Northbound	7	300	0	0	Traffic

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
1	1	J, H	1
	2	I	1

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
1	1	(untitled)	Single	1, 2	39, 67

Intergreen Matrix for Controller Stream 1

		To			
From		H	I	J	
	H		6		
	I	7		7	
	J		6		

Banned Stage transitions for Controller Stream 1

		To	
From		1	2
	1		
	2		

Interstage Matrix for Controller Stream 1

		To	
From		1	2
	1	0	6
	2	7	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
1	1	✓	1	J,H	4	39	35	1	7
	2	✓	2	I	45	67	22	1	7

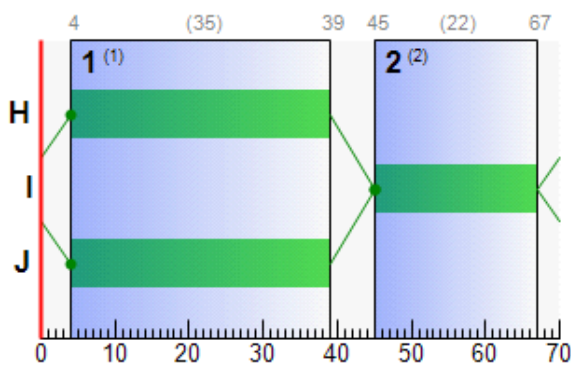
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
1	H	1	✓	4	39	35
	I	1	✓	45	67	22
	J	1	✓	4	39	35

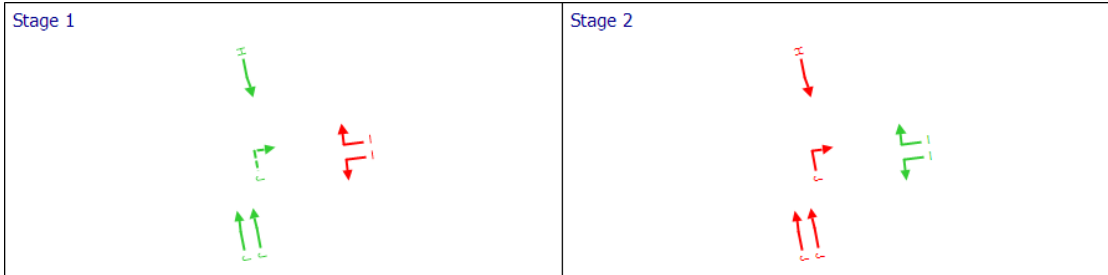
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
1	1	2	1	I	45	67	22
1	2	2	1	I	45	67	22
2	1	1	1	J	4	39	35
2	2	1	1	J	4	39	35
10	1	1	1	H	4	39	35
11	1		1	J	4	39	35

Phase Timings Diagram for Controller Stream 1



Stage Sequence Diagram for Controller Stream 1



Controller Stream 2

Controller Stream	Name	Description	Use sequence	Cycle time source	Cycle time (s)
2	A595/ Inkerman Terrace		1	NetworkDefault	70

Controller Stream 2 - Properties

Controller Stream	Manufacturer name	Type	Model number	(Telephone) Line Number	Site number	Grid reference	Gaining delay type
2	Unspecified						Absolute

Controller Stream 2 - Optimisation

Controller Stream	Allow offset optimisation	Allow green split optimisation	Optimisation level	Auto redistribute	Enable stage constraint
2	✓	✓	Offsets And Green Splits	✓	

Phases

Controller Stream	Phase	Name	Minimum green (s)	Maximum green (s)	Relative start displacement (s)	Relative end displacement (s)	Type	Blackout Time (s)
2	A	A595 Southbound	7	300	0	0	Traffic	
	B	A595 Southbound Indicative Arrow	4	300	0	0	Indicative arrow	
	C	A595 Northbound	7	300	0	0	Traffic	
	D	Inkerman Terrace Right Turn	7	300	0	0	Traffic	
	E	Inkerman Terrace Left Turn	7	300	0	0	Traffic	
	F	Peds across Inkerman Terrace	6	300	0	0	Pedestrian	0
	G	Peds across A595	12	300	0	0	Pedestrian	0

Library Stages

Controller Stream	Library Stage	Phases in stage	User stage minimum (s)
2	1	C, A, F	1
	2	A, B	1
	3	E, D, G	1

Losing / Gaining Phase Delays

Controller Stream	Delay	Type	Phase	From stage	To stage	Relative delay
2	1	Losing	E	3	1	10
	2	Losing	D	3	1	11
	3	Losing	G	3	1	2
	4	Losing	F	1	3	4

Stage Sequences

Controller Stream	Sequence	Name	Multiple cycling	Stage IDs	Stage ends
2	1	(untitled)	Single	1, 3	46, 65

Intergreen Matrix for Controller Stream 2

		To						
		A	B	C	D	E	F	G
From	A				6			6
	B			6	6			6
	C		6		6	9		9
	D	6	5	6				
	E			6			6	
	F					7		
	G	15	15	15				

Banned Stage transitions for Controller Stream 2

		To		
		1	2	3
From	1			
	2			
	3			

Interstage Matrix for Controller Stream 2

		To		
		1	2	3
From	1	0	6	11
	2	6	0	6
	3	17	15	0

Resultant Stages

Controller Stream	Resultant Stage	Is base stage	Library Stage ID	Phases in this stage	Stage start (s)	Stage end (s)	Stage duration (s)	User stage minimum (s)	Stage minimum (s)
2	1	✓	1	C,A,F	12	46	34	1	7
	2	✓	3	E,D,G	57	65	8	1	8

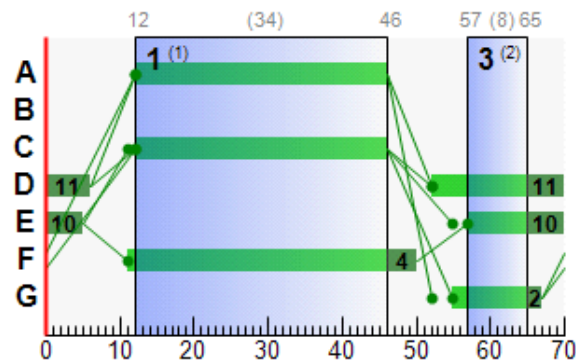
Resultant Phase Green Periods

Controller Stream	Phase	Green period	Is base green period	Start time (s)	End time (s)	Duration (s)
2	A	1	✓	12	46	34
	C	1	✓	12	46	34
	D	1	✓	52	6	24
	E	1	✓	57	5	18
	F	1	✓	11	50	39
	G	1	✓	55	67	12

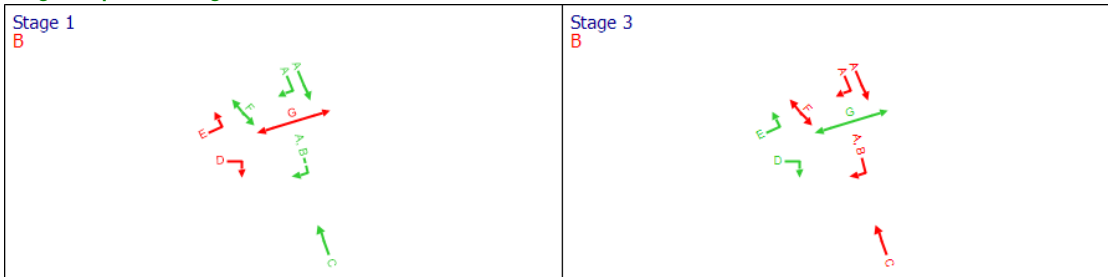
Traffic Stream Green Times

Arm	Traffic Stream	Traffic Node	Controller Stream	Phase	Green Period 1		
					Start	End	Duration
5	1	2	2	C	12	46	34
12	1	2	2	E	57	5	18
13	1		2	D	52	6	24
16	1	2	2	A	12	46	34
16	2	2	2	A	12	46	34
17	1		2	A	12	46	34

Phase Timings Diagram for Controller Stream 2



Stage Sequence Diagram for Controller Stream 2



Resultant penalties

Time Segment	Controller stream	Phase min max penalty (£ per hr)	Intergreen broken penalty (£ per hr)	Stage constraint broken penalty (£ per hr)	Cost of controller stream penalties (£ per hr)
17:00-18:00	(ALL)	0.00	0.00	0.00	0.00

Network Results

Run Summary

Analysis set used	Run start time	Run finish time	Modelling start time (HH:mm)	Network Cycle Time (s)	Performance Index (£ per hr)	Total network delay (PCU-hr/hr)	Highest DOS (%)	Item with highest DOS	Number of oversaturated items	Percentage of oversaturated items (%)	Item with worst signalised PRC	Item with worst unsignalised PRC	Item with worst over PR
6	28/02/2022 11:40:07	28/02/2022 11:40:07	17:00	70	801.06	52.32	90.34	13/1	1	4	13/1	6/1	13/

Network Results: Vehicle summary

Time Segment	Degree of saturation (%)	Practical reserve capacity (%)	Calculated flow entering (PCU/hr)	Actual green (s (per cycle))	Mean Delay per Veh (s)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Performance Index (£ per hr)
17:00-18:00	90	0	11269	1062	16.71	742.98	58.08	801.06

Network Results: Flows and signals

Time Segment	Calculated flow entering (PCU/hr)	Calculated flow out (PCU/hr)	Flow discrepancy (PCU/hr)	Adjusted flow warning	Degree of saturation (%)	DOS Threshold exceeded	Practical reserve capacity (%)	Actual green (s (per cycle))
17:00-18:00	11269	11269	340	✓	90	✓	0	1164

Network Results: Stops and delays

Time Segment	Mean Cruise Time per Veh (s)	Mean Delay per Veh (s)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Mean stops per Veh (%)	Total stops (Stops per hr)	Weighted cost of stops (£ per hr)
17:00-18:00	12.94	16.71	52.32	742.98	41.11	4632.36	58.08

Network Results: Queues and blocking

Time Segment	Utilised storage (%)	Excess queue penalty (£ per hr)	Wasted time total (s (per cycle))
17:00-18:00	174.21	0.00	163.62

Network Results: Advanced

Time Segment	Degree of saturation penalty (£ per hr)	Ped gap accepting penalty (£ per hr)	Warmed up	PCU Factor	Cost of traffic penalties (£ per hr)	Controller stream penalties (£ per hr)	Performance Index (£ per hr)
17:00-18:00	0.00	0.00	✓	1.00	0.00	0.00	801.06

Point to Point Journey Time

Average Journey Time (s) for Local Matrix: 1

	To				
From		1	2	3	4
	1	0.0	94.7	83.2	0.0
	2	191.4	0.0	142.3	199.7
	3	92.4	87.1	0.0	79.6
	4	0.0	116.9	105.1	0.0

Path Journey Time

Path	From Location	To Location	Normal Calculated Flow (PCU/hr)	Normal journey time (s)	Calculated Total Flow (PCU/hr)	Avg journey time (s)
1	4	1	0	0.00	0	0.00
2	1	4	0	0.00	0	0.00
3	1	2	277	94.71	277	94.71
4	4	2	442	116.93	442	116.93
5	2	1	185	191.36	185	191.36
6	2	4	517	199.75	517	199.75
7	1	3	704	83.18	704	83.18
8	2	3	63	142.30	63	142.30
9	4	3	55	105.08	55	105.08
10	3	4	78	79.57	78	79.57
11	3	1	526	92.40	526	92.40
12	3	2	71	87.08	71	87.08

Final Prediction Table

Traffic Stream Results

				SIGNALS			FLOWS		PERFORMANCE				PER PCU		
Arm	Traffic Stream	Name	Traffic node	Controller stream	Phase	Second phase	Calculated flow entering (PCU/hr)	Calculated sat flow (PCU/hr)	Actual green (s (per cycle))	Wasted time total (s (per cycle))	Degree of saturation (%)	Practical reserve capacity	JourneyTime (s)	Mean Delay per Veh (s)	Mean stops per Veh (%)
1	1	B5295 Ribton Moorside N/S	2	1	I		0	1965	22	23.00	0	Unrestricted	0.00	0.00	0.00
	2	B5295 Ribton Moorside O/S	2	1	I		497	1820	22	0.00	83	8	43.52	35.75	102.28
2	1	A595 Northbound at B5295 N/S Lane	1	1	J		277	1955	35	0.48	28	222	19.64	10.47	53.28
	2	A595 Northbound at B5295 O/S	1	1	J		704	1945	35	0.00	70	28	26.35	17.18	73.35
3	1						536	Unrestricted	70	4.00	0	Unrestricted	8.51	0.00	0.00
4	1						690	Unrestricted	70	23.00	0	Unrestricted	12.30	0.00	0.00
5	1	A595 Northbound O/S	2	2	C		759	1985	34	6.00	76	18	34.75	12.63	35.24
6	1	A595 Northbound N/S					719	811	70	5.00	89	2	49.95	25.99	68.41
7	1	A595 Northbound Feeder Lane					981	Unrestricted	70	0.00	0	Unrestricted	6.17	0.00	0.00
8	1	B5295 Ribton Moorside Feeder Lane					497	Unrestricted	70	0.00	0	Unrestricted	5.80	0.00	0.00
9	1						536	691	70	5.00	78	16	43.79	19.62	51.73
10	1	A595 Southbound	1	1	H		690	1975	35	5.00	68	32	46.09	22.90	76.37
11	1	A595 Northbound Right Turn Pocket		1	J		0	411	35	36.00	0	Unrestricted	0.00	0.00	0.00
12	1	Inkermant Terrace Left Turn	2	2	E		56	1911	18	2.00	11	736	22.04	19.19	41.36
13	1	Inkermant Terrace Right Turn		2	D		622 <	1929	24	0.00	90	0	43.06	39.70	69.74
14	1						790	Unrestricted	70	0.00	0	Unrestricted	18.16	0.00	0.00
15	1	Inkerman Terrace Feeder Lane					678	Unrestricted	70	52.00	0	Unrestricted	103.99	91.12	131.81
16	1	A595 Southbound N/S	2	2	A		604	1905	34	0.00	63	42	24.50	16.07	69.87
	2	A595 Southbound O/S	2	2	A		71	1874	34	0.15	8	1083	17.87	9.35	50.23
17	1	A595 Southbound Right Turn		2	A	B	71	227	34	0.00	62	44	45.95	43.03	123.26
18	1						815	Unrestricted	70	2.00	0	Unrestricted	16.27	0.00	0.00
19	1	A595 Southbound Feeder Lane					675	Unrestricted	70	0.00	0	Unrestricted	5.12	0.00	0.00

Network Results

	Distance travelled (PCU-km/hr)	Time spent (PCU-hr/hr)	Mean journey speed (mph)	Total delay (PCU-hr/hr)	Weighted cost of delay (£ per hr)	Weighted cost of stops (£ per hr)	Excess queue penalty (£ per hr)	Performance Index (£ per hr)
Normal traffic	1214.84	92.82	8.13	52.32	742.98	58.08	0.00	801.06
Bus	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tram	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pedestrians	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	1214.84	92.82	8.13	52.32	742.98	58.08	0.00	801.06

- | < = adjusted flow warning (upstream links/traffic streams are over-saturated)
- | * = Traffic Stream - Normal, Bus or Tram Stop or Delay weighting has been set to a value other than 100%
- | ^ = Traffic Stream - Normal, Bus or Tram Stop or Delay Path weighting has been set to a value other than 100%
- | + = average link/traffic stream excess queue is greater than 0
- | **P.I. = PERFORMANCE INDEX**



Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.1.7462 © Copyright TRL Limited, 2019			
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk			
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Filename: Hensingham Sq- Mini Roundabout.j9

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 9 - Mini Roundabout- Hensingham Square

Report generation date: 03/03/2022 09:00:52

- »2022 Base, AM
- »2022 Base, PM
- »2032 Base, AM
- »2032 Base, PM
- »2032 Base + Development, AM
- »2032 Base + Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2022 Base							
1 - B5295 Main Street	D1	3.5	23.56	0.79	D2	3.5	25.72	0.79
2 - Egremont Road		0.9	6.84	0.48		0.6	5.78	0.38
3 - B5295 Hensingham Rd		1.4	10.63	0.58		2.4	15.01	0.71
	2032 Base							
1 - B5295 Main Street	D3	4.9	31.14	0.84	D4	4.8	33.65	0.84
2 - Egremont Road		1.1	7.42	0.52		0.7	6.11	0.41
3 - B5295 Hensingham Rd		1.6	11.98	0.62		3.0	18.01	0.76
	2032 Base + Development							
1 - B5295 Main Street	D5	6.6	40.45	0.89	D6	19.3	107.34	1.01
2 - Egremont Road		1.1	7.81	0.53		0.8	7.00	0.44
3 - B5295 Hensingham Rd		2.9	18.18	0.75		3.5	20.28	0.78

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

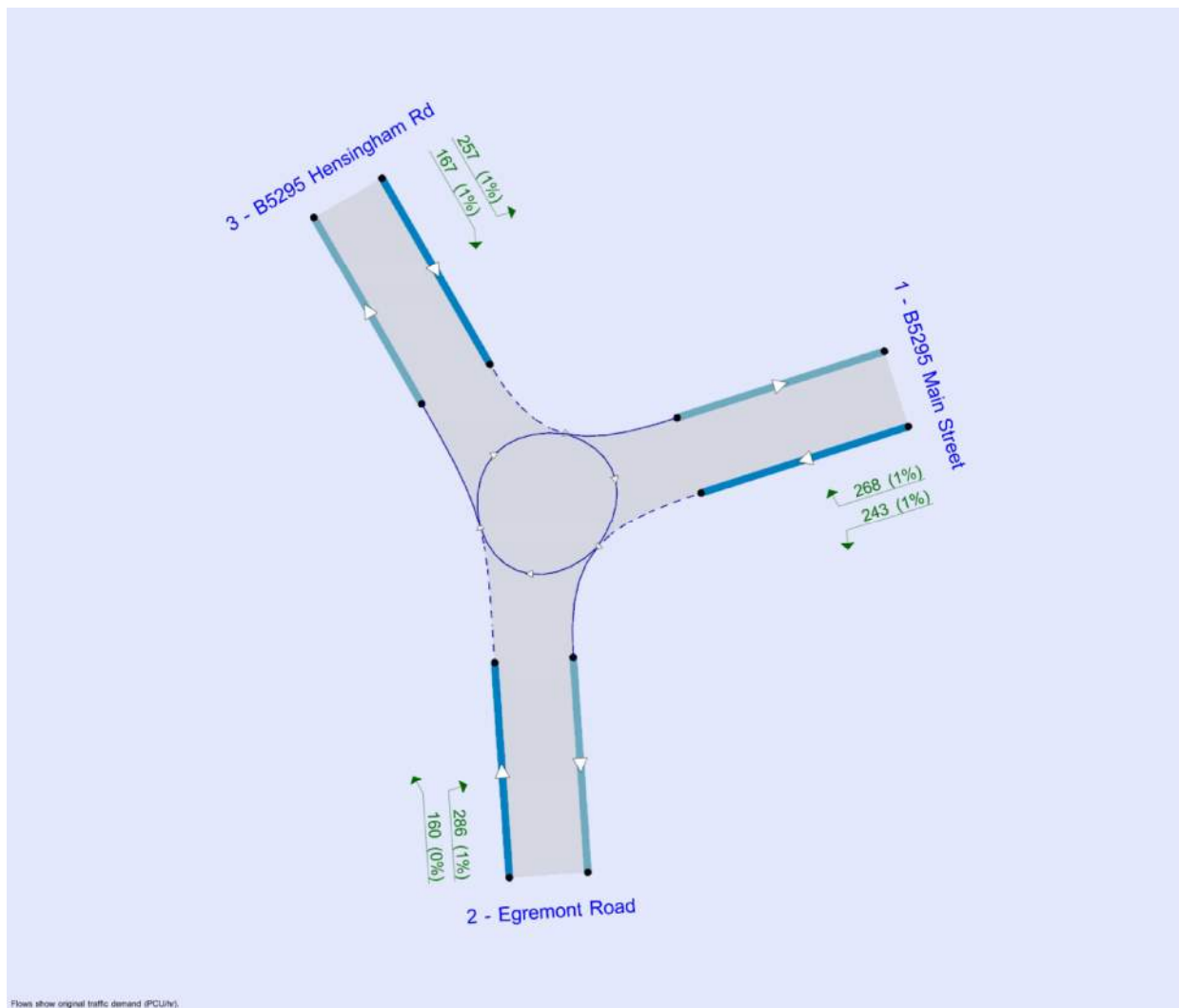
File summary

File Description

Title	Mini Roundabout- Hensingham Square
Location	B5295 Main Street/B5295 Egremont Rd/B5295 Ribton Moorside
Site number	
Date	21/02/2022
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\NASSER.JAMILI
Description	

Units

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



Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	14.19	B

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	B5295 Main Street	
2	Egremont Road	
3	B5295 Hensingham Rd	

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 - B5295 Main Street	3.10	3.10	6.90	3.1	10.40	7.00	0.0	
2 - Egremont Road	3.40	3.30	4.00	4.8	19.00	19.00	0.0	
3 - B5295 Hensingham Rd	3.80	3.50	5.20	2.2	12.40	9.80	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B5295 Main Street	0.624	829
2 - Egremont Road	0.804	1257
3 - B5295 Hensingham Rd	0.629	1007

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	511	100.000
2 - Egremont Road		✓	446	100.000
3 - B5295 Hensingham Rd		✓	424	100.000

Origin-Destination Data

Demand (PCU/hr)

	To

From	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
	1 - B5295 Main Street	0	243	268
	2 - Egremont Road	286	0	160
	3 - B5295 Hensingham Rd	257	167	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
	1 - B5295 Main Street	0	1	1
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	0.79	23.56	3.5	C
2 - Egremont Road	0.48	6.84	0.9	A
3 - B5295 Hensingham Rd	0.58	10.63	1.4	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	385	125	751	0.512	381	1.0	9.700	A
2 - Egremont Road	336	200	1097	0.306	334	0.4	4.733	A
3 - B5295 Hensingham Rd	319	214	872	0.366	317	0.6	6.527	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	459	150	736	0.624	457	1.6	12.928	B
2 - Egremont Road	401	240	1064	0.377	400	0.6	5.441	A
3 - B5295 Hensingham Rd	381	257	845	0.451	380	0.8	7.805	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	563	183	715	0.787	556	3.4	21.883	C
2 - Egremont Road	491	291	1023	0.480	490	0.9	6.770	A
3 - B5295 Hensingham Rd	467	314	809	0.577	465	1.3	10.498	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	563	184	714	0.787	562	3.5	23.556	C
2 - Egremont Road	491	295	1020	0.481	491	0.9	6.836	A
3 - B5295 Hensingham Rd	467	315	808	0.577	467	1.4	10.634	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	459	151	735	0.625	467	1.7	13.876	B
2 - Egremont Road	401	245	1060	0.378	402	0.6	5.505	A
3 - B5295 Hensingham Rd	381	258	844	0.451	383	0.8	7.922	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	385	126	750	0.513	387	1.1	10.079	B
2 - Egremont Road	336	203	1094	0.307	336	0.4	4.780	A

3 - B5295 Hensingham Rd	319	216	871	0.367	320	0.6	6.614	A

2022 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	16.29	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	467	100.000
2 - Egremont Road		✓	354	100.000
3 - B5295 Hensingham Rd		✓	534	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	194	273
	2 - Egremont Road	258	0	96
	3 - B5295 Hensingham Rd	276	258	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	0	0
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	0.79	25.72	3.5	D
2 - Egremont Road	0.38	5.78	0.6	A
3 - B5295 Hensingham Rd	0.71	15.01	2.4	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	352	193	709	0.496	348	1.0	9.903	A
2 - Egremont Road	267	203	1094	0.244	265	0.3	4.360	A
3 - B5295 Hensingham Rd	402	193	885	0.454	399	0.8	7.387	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	420	231	685	0.613	418	1.5	13.399	B
2 - Egremont Road	318	244	1061	0.300	318	0.4	4.865	A
3 - B5295 Hensingham Rd	480	232	861	0.558	478	1.2	9.408	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	514	282	653	0.787	507	3.3	23.611	C
2 - Egremont Road	390	296	1019	0.383	389	0.6	5.735	A
3 - B5295 Hensingham Rd	588	284	828	0.710	584	2.3	14.515	B

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	514	284	652	0.789	513	3.5	25.717	D
2 - Egremont Road	390	300	1016	0.384	390	0.6	5.776	A
3 - B5295 Hensingham Rd	588	284	828	0.710	588	2.4	15.009	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	420	234	683	0.615	427	1.7	14.501	B
2 - Egremont Road	318	250	1056	0.301	319	0.4	4.909	A
3 - B5295 Hensingham Rd	480	232	860	0.558	484	1.3	9.724	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	352	195	707	0.497	354	1.0	10.304	B
2 - Egremont Road	267	207	1091	0.244	267	0.3	4.392	A
3 - B5295 Hensingham Rd	402	195	884	0.455	404	0.8	7.551	A

2032 Base, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	17.61	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	541	100.000
2 - Egremont Road		✓	471	100.000
3 - B5295 Hensingham Rd		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	257	284
	2 - Egremont Road	302	0	169
	3 - B5295 Hensingham Rd	272	177	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	1	1
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	0.84	31.14	4.9	D
2 - Egremont Road	0.52	7.42	1.1	A
3 - B5295 Hensingham Rd	0.62	11.98	1.6	B

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	407	132	747	0.546	403	1.2	10.431	B
2 - Egremont Road	355	211	1087	0.326	353	0.5	4.919	A
3 - B5295 Hensingham Rd	338	226	864	0.391	335	0.6	6.843	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	486	159	730	0.666	483	1.9	14.550	B
2 - Egremont Road	423	254	1053	0.402	423	0.7	5.739	A
3 - B5295 Hensingham Rd	404	271	836	0.483	402	0.9	8.363	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	596	194	708	0.841	585	4.5	27.476	D
2 - Egremont Road	519	307	1010	0.513	517	1.0	7.327	A
3 - B5295 Hensingham Rd	494	332	798	0.620	492	1.6	11.767	B

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	596	195	708	0.842	594	4.9	31.138	D
2 - Egremont Road	519	312	1006	0.515	519	1.1	7.424	A
3 - B5295 Hensingham Rd	494	332	797	0.620	494	1.6	11.981	B

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	486	160	729	0.667	497	2.1	16.352	C
2 - Egremont Road	423	261	1047	0.404	425	0.7	5.835	A
3 - B5295 Hensingham Rd	404	272	835	0.483	406	1.0	8.528	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	407	134	746	0.546	411	1.2	10.965	B
2 - Egremont Road	355	216	1084	0.327	355	0.5	4.981	A
3 - B5295 Hensingham Rd	338	228	863	0.392	339	0.7	6.954	A

2032 Base, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	20.28	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	491	100.000
2 - Egremont Road		✓	373	100.000
3 - B5295 Hensingham Rd		✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	204	287
	2 - Egremont Road	272	0	101
	3 - B5295 Hensingham Rd	290	272	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	0	0
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	0.84	33.65	4.8	D
2 - Egremont Road	0.41	6.11	0.7	A
3 - B5295 Hensingham Rd	0.76	18.01	3.0	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	370	203	703	0.526	365	1.1	10.548	B
2 - Egremont Road	281	214	1085	0.259	279	0.3	4.492	A
3 - B5295 Hensingham Rd	423	204	878	0.482	419	0.9	7.811	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	441	244	677	0.652	439	1.8	14.900	B
2 - Egremont Road	335	256	1051	0.319	335	0.5	5.060	A
3 - B5295 Hensingham Rd	505	244	853	0.592	503	1.4	10.285	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	541	297	644	0.839	530	4.4	29.251	D
2 - Egremont Road	411	310	1008	0.407	410	0.7	6.054	A
3 - B5295 Hensingham Rd	619	299	819	0.756	613	2.9	17.111	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	541	299	642	0.841	539	4.8	33.646	D
2 - Egremont Road	411	315	1004	0.409	411	0.7	6.113	A
3 - B5295 Hensingham Rd	619	299	818	0.756	618	3.0	18.009	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	441	247	675	0.654	453	2.0	16.925	C
2 - Egremont Road	335	265	1044	0.321	336	0.5	5.127	A
3 - B5295 Hensingham Rd	505	245	852	0.593	511	1.5	10.784	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	370	206	701	0.528	373	1.1	11.094	B
2 - Egremont Road	281	218	1082	0.260	281	0.4	4.534	A
3 - B5295 Hensingham Rd	423	205	878	0.482	425	1.0	8.039	A

2032 Base + Development, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	23.10	C

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	569	100.000
2 - Egremont Road		✓	471	100.000
3 - B5295 Hensingham Rd		✓	544	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	257	312
	2 - Egremont Road	302	0	169
	3 - B5295 Hensingham Rd	367	177	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	1	1
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	0.89	40.45	6.6	E
2 - Egremont Road	0.53	7.81	1.1	A
3 - B5295 Hensingham Rd	0.75	18.18	2.9	C

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	428	132	747	0.574	423	1.3	11.063	B
2 - Egremont Road	355	232	1071	0.331	353	0.5	5.033	A
3 - B5295 Hensingham Rd	410	226	864	0.474	406	0.9	7.872	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	512	158	730	0.700	508	2.2	16.075	C
2 - Egremont Road	423	278	1033	0.410	423	0.7	5.926	A
3 - B5295 Hensingham Rd	489	271	836	0.585	487	1.4	10.357	B

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	626	193	709	0.884	612	5.9	33.389	D
2 - Egremont Road	519	336	987	0.525	517	1.1	7.676	A
3 - B5295 Hensingham Rd	599	331	798	0.751	593	2.8	17.272	C

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	626	195	708	0.885	624	6.6	40.454	E
2 - Egremont Road	519	342	982	0.528	519	1.1	7.811	A
3 - B5295 Hensingham Rd	599	332	797	0.751	599	2.9	18.185	C

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	512	161	729	0.702	528	2.5	19.360	C
2 - Egremont Road	423	289	1024	0.413	425	0.7	6.061	A
3 - B5295 Hensingham Rd	489	273	835	0.586	495	1.5	10.862	B

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	428	134	746	0.575	433	1.4	11.786	B
2 - Egremont Road	355	237	1066	0.333	355	0.5	5.102	A
3 - B5295 Hensingham Rd	410	228	863	0.474	412	0.9	8.092	A

2032 Base + Development, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	50.26	F

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - B5295 Main Street		✓	589	100.000
2 - Egremont Road		✓	373	100.000
3 - B5295 Hensingham Rd		✓	583	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	204	385
	2 - Egremont Road	272	0	101
	3 - B5295 Hensingham Rd	311	272	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Main Street	2 - Egremont Road	3 - B5295 Hensingham Rd
From	1 - B5295 Main Street	0	0	0
	2 - Egremont Road	1	0	0
	3 - B5295 Hensingham Rd	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - B5295 Main Street	1.01	107.34	19.3	F
2 - Egremont Road	0.44	7.00	0.8	A
3 - B5295 Hensingham Rd	0.78	20.28	3.5	C

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	443	203	703	0.631	437	1.6	13.246	B
2 - Egremont Road	281	286	1028	0.273	279	0.4	4.836	A
3 - B5295 Hensingham Rd	439	204	878	0.500	435	1.0	8.092	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	529	243	677	0.782	523	3.2	22.443	C
2 - Egremont Road	335	342	982	0.341	335	0.5	5.596	A
3 - B5295 Hensingham Rd	524	244	853	0.614	522	1.6	10.850	B

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	649	296	644	1.006	608	13.3	65.116	F
2 - Egremont Road	411	398	937	0.438	410	0.8	6.855	A
3 - B5295 Hensingham Rd	642	299	819	0.784	635	3.3	18.971	C

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	649	299	643	1.009	625	19.3	107.340	F
2 - Egremont Road	411	408	929	0.442	411	0.8	6.997	A
3 - B5295 Hensingham Rd	642	299	818	0.785	641	3.5	20.284	C

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	529	248	674	0.785	590	4.2	55.052	F
2 - Egremont Road	335	385	947	0.354	336	0.6	5.942	A
3 - B5295 Hensingham Rd	524	245	852	0.615	531	1.7	11.521	B

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - B5295 Main Street	443	206	701	0.633	453	1.8	15.081	C
2 - Egremont Road	281	296	1019	0.276	281	0.4	4.923	A
3 - B5295 Hensingham Rd	439	205	877	0.500	441	1.0	8.349	A

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.5.1.7462 © Copyright TRL Limited, 2019							
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Filename: 2. Homewood Roundabout.j9

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 14 - A595 Homewood Road Roundabout

Report generation date: 02/03/2022 17:07:13

»2022 Base, AM
 »2022 Base, PM
 »2032 Base, AM
 »2032 Base, PM
 »2032 Base + Development, AM
 »2032 Base + Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2022 Base							
1 - Homewood Road	D1	1.1	10.98	0.53	D2	1.2	10.72	0.55
2 - A595 Egremont		27.0	79.42	1.01		45.6	116.70	1.05
3 - Hensingham		3.6	15.52	0.78		1.6	8.21	0.62
4 - B5295 Egremont Road N		0.6	6.49	0.36		0.3	4.72	0.23
	2032 Base							
1 - Homewood Road	D3	1.4	12.98	0.59	D4	1.6	13.00	0.61
2 - A595 Egremont		65.0	163.56	1.09		90.9	228.99	1.13
3 - Hensingham		5.2	21.24	0.84		2.0	9.33	0.67
4 - B5295 Egremont Road N		0.6	6.98	0.37		0.3	5.02	0.26
	2032 Base + Development							
1 - Homewood Road	D5	1.6	14.32	0.62	D6	2.1	16.12	0.69
2 - A595 Egremont		90.9	236.33	1.13		96.5	247.79	1.14
3 - Hensingham		5.6	22.97	0.85		2.0	9.41	0.67
4 - B5295 Egremont Road N		0.7	7.64	0.41		0.3	5.06	0.26

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

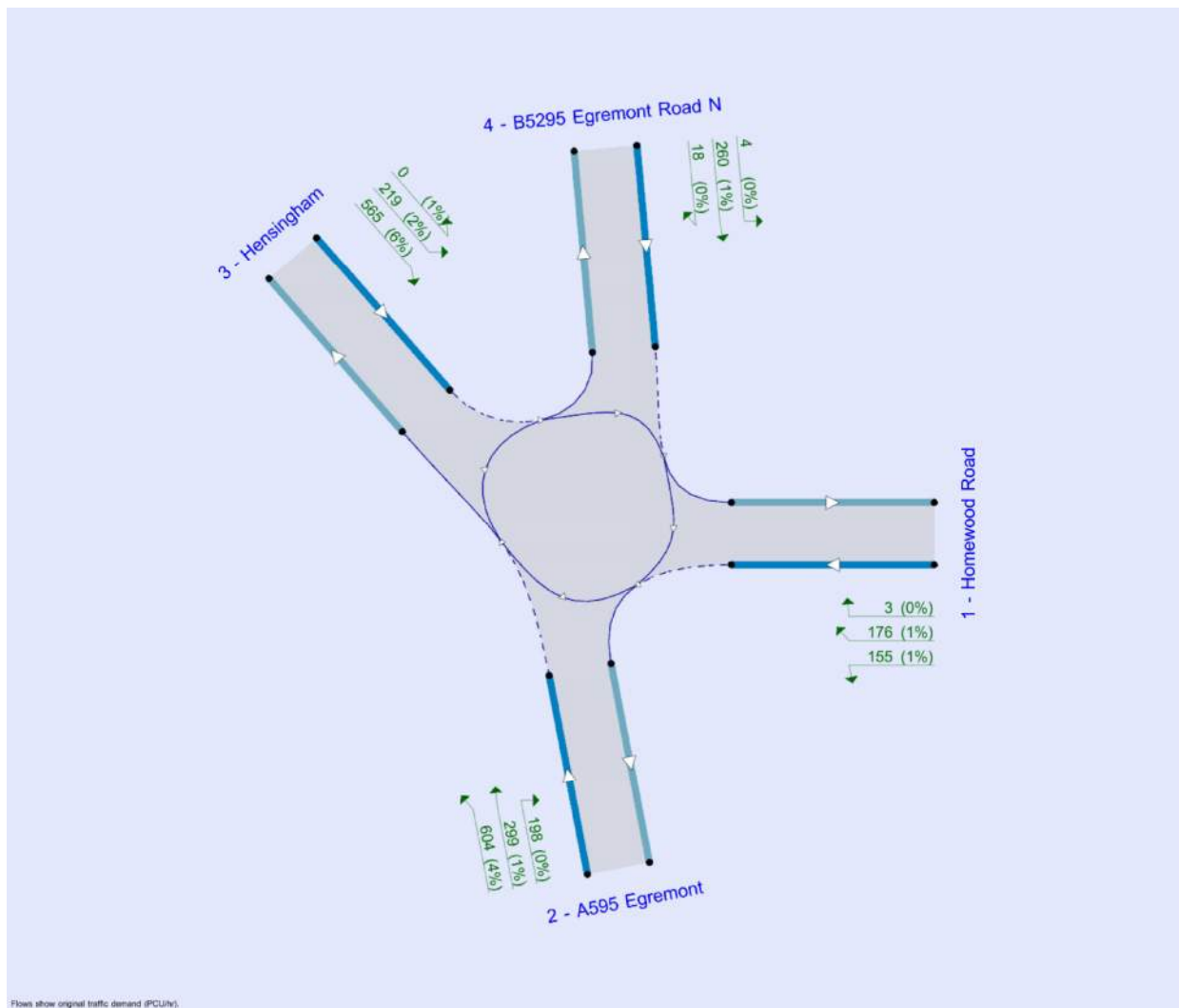
File summary

File Description

Title	A595 Homewood Road Roundabout
Location	A595/Egremont Rd/Homewood Rd
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\NASSER.JAMILI
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 Base, 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	42.03	E

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Homewood Road	
2	A595 Egremont	
3	Hensingham	
4	B5295 Egremont Road N	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Homewood Road	3.30	5.30	3.0	15.0	48.7	31.5	
2 - A595 Egremont	4.20	4.90	1.7	16.0	48.7	36.0	
3 - Hensingham	4.30	5.80	3.8	10.0	48.7	38.0	
4 - B5295 Egremont Road N	3.80	5.60	5.6	42.0	48.7	19.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Homewood Road	0.506	1168
2 - A595 Egremont	0.532	1319
3 - Hensingham	0.532	1388
4 - B5295 Egremont Road N	0.596	1511

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	334	100.000
2 - A595 Egremont		✓	1101	100.000
3 - Hensingham		✓	784	100.000
4 - B5295 Egremont Road N		✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	155	176	3
	2 - A595 Egremont	198	0	604	299
	3 - Hensingham	219	565	0	0
	4 - B5295 Egremont Road N	4	260	18	0

Vehicle Mix

Heavy Vehicle Percentages

From	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	1	1	0
	2 - A595 Egremont	0	0	4	1
	3 - Hensingham	2	6	0	1
	4 - B5295 Egremont Road N	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.53	10.98	1.1	B
2 - A595 Egremont	1.01	79.42	27.0	F
3 - Hensingham	0.78	15.52	3.6	C
4 - B5295 Egremont Road N	0.36	6.49	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	251	631	848	0.296	250	0.4	6.048	A
2 - A595 Egremont	829	147	1241	0.668	821	2.0	8.617	A
3 - Hensingham	590	373	1190	0.496	586	1.0	6.192	A
4 - B5295 Egremont Road N	212	734	1073	0.198	211	0.2	4.208	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	300	756	785	0.382	299	0.6	7.464	A
2 - A595 Egremont	990	177	1225	0.808	982	4.0	14.667	B
3 - Hensingham	705	446	1151	0.612	702	1.6	8.341	A
4 - B5295 Egremont Road N	254	879	987	0.257	253	0.3	4.947	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	368	922	701	0.525	366	1.1	10.777	B
2 - A595 Egremont	1212	216	1204	1.007	1153	18.7	47.128	E
3 - Hensingham	863	524	1110	0.778	856	3.4	14.436	B
4 - B5295 Egremont Road N	310	1063	877	0.354	310	0.5	6.394	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	368	928	698	0.527	368	1.1	10.981	B
2 - A595 Egremont	1212	217	1204	1.007	1179	27.0	79.422	F
3 - Hensingham	863	536	1103	0.782	862	3.6	15.523	C
4 - B5295 Egremont Road N	310	1075	870	0.357	310	0.6	6.488	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	300	764	781	0.384	302	0.6	7.610	A
2 - A595 Egremont	990	178	1224	0.808	1078	4.8	34.893	D
3 - Hensingham	705	489	1128	0.625	712	1.8	9.202	A
4 - B5295 Egremont Road N	254	906	970	0.261	254	0.4	5.074	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	251	637	845	0.298	252	0.4	6.132	A
2 - A595 Egremont	829	149	1240	0.669	840	2.1	9.438	A
3 - Hensingham	590	381	1185	0.498	593	1.1	6.383	A
4 - B5295 Egremont Road N	212	744	1067	0.199	213	0.3	4.253	A

2022 Base, 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	61.27	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	371	100.000
2 - A595 Egremont		✓	1189	100.000
3 - Hensingham		✓	665	100.000
4 - B5295 Egremont Road N		✓	210	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	255	110	6
	2 - A595 Egremont	126	0	809	254
	3 - Hensingham	112	553	0	0
	4 - B5295 Egremont Road N	4	201	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	0	0	0
	2 - A595 Egremont	1	0	1	1
	3 - Hensingham	1	1	0	0
	4 - B5295 Egremont Road N	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.55	10.72	1.2	B
2 - A595 Egremont	1.05	116.70	45.6	F
3 - Hensingham	0.62	8.21	1.6	A

4 - B5295 Egremont Road N	0.23	4.72	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	279	569	880	0.317	277	0.5	5.966	A
2 - A595 Egremont	895	91	1271	0.704	886	2.3	9.251	A
3 - Hensingham	501	288	1235	0.405	498	0.7	4.910	A
4 - B5295 Egremont Road N	158	592	1158	0.137	157	0.2	3.607	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	334	681	823	0.405	333	0.7	7.342	A
2 - A595 Egremont	1069	109	1261	0.847	1058	5.0	17.060	C
3 - Hensingham	598	344	1206	0.496	597	1.0	5.955	A
4 - B5295 Egremont Road N	189	709	1088	0.174	189	0.2	4.012	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	408	833	746	0.548	406	1.2	10.556	B
2 - A595 Egremont	1309	133	1249	1.049	1217	28.0	60.819	F
3 - Hensingham	732	396	1178	0.622	730	1.6	8.060	A
4 - B5295 Egremont Road N	231	859	999	0.232	231	0.3	4.699	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	408	836	745	0.549	408	1.2	10.718	B
2 - A595 Egremont	1309	133	1248	1.049	1239	45.6	116.703	F
3 - Hensingham	732	402	1174	0.624	732	1.6	8.214	A
4 - B5295 Egremont Road N	231	863	996	0.232	231	0.3	4.720	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	334	685	821	0.406	336	0.7	7.454	A
2 - A595 Egremont	1069	109	1261	0.848	1220	7.7	80.629	F
3 - Hensingham	598	395	1178	0.508	600	1.1	6.317	A
4 - B5295 Egremont Road N	189	730	1076	0.175	189	0.2	4.073	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	279	573	878	0.318	280	0.5	6.041	A
2 - A595 Egremont	895	91	1270	0.705	916	2.5	10.833	B
3 - Hensingham	501	297	1230	0.407	502	0.7	4.999	A
4 - B5295 Egremont Road N	158	599	1154	0.137	158	0.2	3.630	A

2032 Base, 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	81.77	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	359	100.000
2 - A595 Egremont		✓	1183	100.000
3 - Hensingham		✓	842	100.000
4 - B5295 Egremont Road N		✓	282	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	167	189	3
	2 - A595 Egremont	213	0	649	321
	3 - Hensingham	235	607	0	0
	4 - B5295 Egremont Road N	4	260	18	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	1	1	0
	2 - A595 Egremont	0	0	4	1
	3 - Hensingham	2	6	0	1
	4 - B5295 Egremont Road N	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.59	12.98	1.4	B
2 - A595 Egremont	1.09	163.56	65.0	F
3 - Hensingham	0.84	21.24	5.2	C

4 - B5295 Egremont Road N	0.37	6.98	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	270	662	833	0.325	268	0.5	6.421	A
2 - A595 Egremont	891	157	1236	0.721	880	2.5	10.116	B
3 - Hensingham	634	400	1176	0.539	629	1.2	6.846	A
4 - B5295 Egremont Road N	212	788	1041	0.204	211	0.3	4.373	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	323	793	766	0.421	322	0.7	8.160	A
2 - A595 Egremont	1063	188	1219	0.872	1050	6.0	20.277	C
3 - Hensingham	757	477	1135	0.667	754	2.0	9.817	A
4 - B5295 Egremont Road N	254	943	949	0.267	253	0.4	5.219	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	395	965	679	0.582	393	1.4	12.588	B
2 - A595 Egremont	1303	230	1197	1.088	1177	37.3	78.480	F
3 - Hensingham	927	535	1104	0.840	916	4.9	18.999	C
4 - B5295 Egremont Road N	310	1128	838	0.370	310	0.6	6.861	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	395	973	675	0.586	395	1.4	12.979	B
2 - A595 Egremont	1303	231	1196	1.089	1192	65.0	163.563	F
3 - Hensingham	927	541	1100	0.843	926	5.2	21.240	C
4 - B5295 Egremont Road N	310	1140	831	0.374	310	0.6	6.982	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	323	805	760	0.424	325	0.8	8.405	A
2 - A595 Egremont	1063	190	1218	0.873	1199	31.1	147.191	F
3 - Hensingham	757	544	1099	0.689	768	2.4	11.777	B
4 - B5295 Egremont Road N	254	984	924	0.274	254	0.4	5.434	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	270	670	829	0.326	271	0.5	6.538	A
2 - A595 Egremont	891	159	1235	0.721	1004	2.8	24.079	C
3 - Hensingham	634	455	1146	0.553	638	1.3	7.498	A
4 - B5295 Egremont Road N	212	819	1022	0.208	213	0.3	4.491	A

2032 Base, 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	116.74	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	398	100.000
2 - A595 Egremont		✓	1273	100.000
3 - Hensingham		✓	712	100.000
4 - B5295 Egremont Road N		✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	273	118	7
	2 - A595 Egremont	135	0	866	272
	3 - Hensingham	120	592	0	0
	4 - B5295 Egremont Road N	4	215	6	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	0	0	0
	2 - A595 Egremont	1	0	1	1
	3 - Hensingham	1	1	0	0
	4 - B5295 Egremont Road N	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.61	13.00	1.6	B
2 - A595 Egremont	1.13	228.99	90.9	F
3 - Hensingham	0.67	9.33	2.0	A

4 - B5295 Egremont Road N	0.26	5.02	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	300	609	859	0.349	298	0.5	6.381	A
2 - A595 Egremont	958	98	1267	0.756	946	3.0	10.972	B
3 - Hensingham	536	308	1225	0.438	533	0.8	5.234	A
4 - B5295 Egremont Road N	169	633	1133	0.149	169	0.2	3.731	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	358	729	798	0.448	357	0.8	8.129	A
2 - A595 Egremont	1144	117	1257	0.911	1125	7.9	24.471	C
3 - Hensingham	640	366	1194	0.536	639	1.2	6.533	A
4 - B5295 Egremont Road N	202	758	1059	0.191	202	0.2	4.200	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	438	892	716	0.612	435	1.5	12.689	B
2 - A595 Egremont	1402	143	1243	1.128	1231	50.6	96.937	F
3 - Hensingham	784	401	1175	0.667	781	2.0	9.147	A
4 - B5295 Egremont Road N	248	911	967	0.256	247	0.3	4.996	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	438	895	715	0.613	438	1.6	13.003	B
2 - A595 Egremont	1402	144	1242	1.128	1240	90.9	213.051	F
3 - Hensingham	784	404	1173	0.668	784	2.0	9.329	A
4 - B5295 Egremont Road N	248	915	965	0.257	248	0.3	5.019	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	358	734	796	0.449	361	0.8	8.320	A
2 - A595 Egremont	1144	119	1256	0.911	1242	66.5	228.993	F
3 - Hensingham	640	403	1174	0.545	643	1.2	6.895	A
4 - B5295 Egremont Road N	202	775	1049	0.193	203	0.2	4.257	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	300	614	857	0.350	301	0.5	6.486	A
2 - A595 Egremont	958	99	1266	0.757	1209	3.8	95.853	F
3 - Hensingham	536	392	1180	0.454	538	0.9	5.673	A
4 - B5295 Egremont Road N	169	666	1114	0.152	170	0.2	3.813	A

2032 Base + Development, 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	115.69	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	373	100.000
2 - A595 Egremont		✓	1231	100.000
3 - Hensingham		✓	842	100.000
4 - B5295 Egremont Road N		✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	181	189	3
	2 - A595 Egremont	261	0	649	321
	3 - Hensingham	235	607	0	0
	4 - B5295 Egremont Road N	4	279	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
	1 - Homewood Road	0	1	1	0
	2 - A595 Egremont	0	0	4	1
	3 - Hensingham	2	6	0	1
	4 - B5295 Egremont Road N	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.62	14.32	1.6	B
2 - A595 Egremont	1.13	236.33	90.9	F
3 - Hensingham	0.85	22.97	5.6	C

4 - B5295 Egremont Road N	0.41	7.64	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	281	677	825	0.340	279	0.5	6.628	A
2 - A595 Egremont	927	158	1235	0.750	915	2.9	11.138	B
3 - Hensingham	634	435	1157	0.548	629	1.2	7.083	A
4 - B5295 Egremont Road N	227	823	1020	0.223	226	0.3	4.570	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	335	810	757	0.443	334	0.8	8.569	A
2 - A595 Egremont	1107	189	1218	0.908	1087	7.8	24.933	C
3 - Hensingham	757	517	1113	0.680	753	2.2	10.378	B
4 - B5295 Egremont Road N	271	984	924	0.294	271	0.4	5.558	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	411	986	668	0.615	408	1.5	13.786	B
2 - A595 Egremont	1355	231	1196	1.133	1185	50.5	100.190	F
3 - Hensingham	927	563	1089	0.852	915	5.2	20.385	C
4 - B5295 Egremont Road N	333	1166	815	0.408	331	0.7	7.489	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	411	995	664	0.619	410	1.6	14.323	B
2 - A595 Egremont	1355	232	1196	1.134	1194	90.9	220.788	F
3 - Hensingham	927	568	1086	0.853	926	5.6	22.973	C
4 - B5295 Egremont Road N	333	1179	808	0.412	332	0.7	7.641	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	335	824	751	0.447	338	0.8	8.882	A
2 - A595 Egremont	1107	191	1217	0.909	1204	66.6	236.327	F
3 - Hensingham	757	572	1084	0.698	769	2.5	12.433	B
4 - B5295 Egremont Road N	271	1025	900	0.302	273	0.4	5.801	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	281	685	821	0.342	282	0.5	6.759	A
2 - A595 Egremont	927	159	1234	0.751	1178	3.8	98.772	F
3 - Hensingham	634	559	1091	0.581	638	1.5	8.414	A
4 - B5295 Egremont Road N	227	888	981	0.232	228	0.3	4.825	A

2032 Base + Development, 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	124.84	F

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	447	100.000
2 - A595 Egremont		✓	1283	100.000
3 - Hensingham		✓	712	100.000
4 - B5295 Egremont Road N		✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	322	118	7
	2 - A595 Egremont	145	0	866	272
	3 - Hensingham	120	592	0	0
	4 - B5295 Egremont Road N	4	215	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Homewood Road	2 - A595 Egremont	3 - Hensingham	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	0	0	0
	2 - A595 Egremont	1	0	1	1
	3 - Hensingham	1	1	0	0
	4 - B5295 Egremont Road N	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.69	16.12	2.1	C
2 - A595 Egremont	1.14	247.79	96.5	F
3 - Hensingham	0.67	9.41	2.0	A

4 - B5295 Egremont Road N	0.26	5.06	0.3	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	337	609	859	0.392	334	0.6	6.818	A
2 - A595 Egremont	966	98	1267	0.762	954	3.1	11.203	B
3 - Hensingham	536	315	1221	0.439	533	0.8	5.264	A
4 - B5295 Egremont Road N	169	641	1129	0.150	169	0.2	3.748	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	402	729	798	0.503	400	1.0	9.011	A
2 - A595 Egremont	1153	117	1257	0.918	1132	8.4	25.597	D
3 - Hensingham	640	374	1189	0.538	639	1.2	6.584	A
4 - B5295 Egremont Road N	202	767	1054	0.192	202	0.2	4.226	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	492	892	716	0.687	488	2.1	15.474	C
2 - A595 Egremont	1413	143	1243	1.136	1232	53.5	101.608	F
3 - Hensingham	784	408	1171	0.669	781	2.0	9.231	A
4 - B5295 Egremont Road N	248	920	962	0.257	247	0.3	5.032	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	492	895	715	0.689	492	2.1	16.118	C
2 - A595 Egremont	1413	144	1242	1.137	1241	96.5	225.017	F
3 - Hensingham	784	411	1170	0.670	784	2.0	9.415	A
4 - B5295 Egremont Road N	248	924	960	0.258	248	0.3	5.055	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	402	734	796	0.505	406	1.0	9.334	A
2 - A595 Egremont	1153	119	1256	0.918	1243	74.1	247.787	F
3 - Hensingham	640	410	1170	0.547	643	1.2	6.944	A
4 - B5295 Egremont Road N	202	784	1043	0.194	203	0.2	4.283	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	337	614	857	0.393	338	0.7	6.958	A
2 - A595 Egremont	966	99	1266	0.763	1244	4.7	117.807	F
3 - Hensingham	536	409	1170	0.458	538	0.9	5.760	A
4 - B5295 Egremont Road N	169	678	1106	0.153	170	0.2	3.845	A

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.1.7462 © Copyright TRL Limited, 2019			
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Filename: 2. Homewood Roundabout with ID 33 Improvement.j9

Path: \\ds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 14 - A595 Homewood Road Roundabout

Report generation date: 03/03/2022 10:24:38

»2032 Base + Development, AM

»2032 Base + Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
2032 Base + Development								
1 - Homewood Road	D5	1.6	14.30	0.62	D6	2.1	16.12	0.69
2 - A595 Egremont Road		2.3	6.04	0.69		2.3	5.92	0.70
3 - A595 Hensingham Bypass		7.2	29.74	0.89		2.2	10.20	0.69
4 - B5295 Egremont Road N		0.7	7.97	0.42		0.4	5.14	0.26

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

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

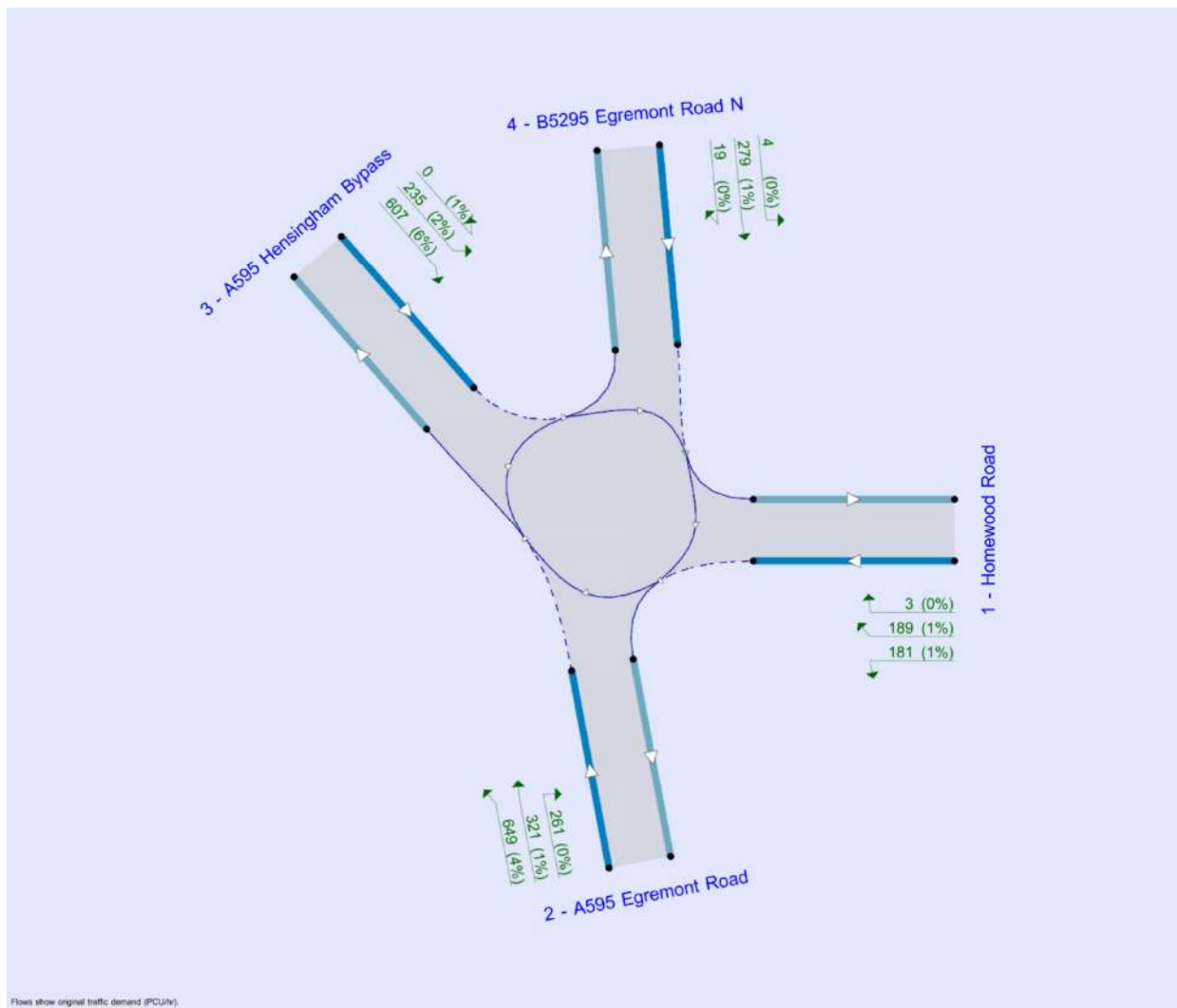
File summary

File Description

Title	A595 Homewood Road Roundabout
Location	A595/Egremont Rd/Homewood Rd
Site number	
Date	17/02/2022
Version	
Status	(new file)
Identifier	
Client	A595/Egremont Rd/Homewood Rd
Jobnumber	784-B030277
Enumerator	TT\NASSER.JAMILI
Description	With WSP ID 33 Improvement Scheme (Option 1) - Atkins drawing 5188540/ HGN 0001 Rev P1

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		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)
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2032 Base + Development, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A595 Egremont Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	14.64	B

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Homewood Road	
2	A595 Egremont Road	
3	A595 Hensingham Bypass	
4	B5295 Egremont Road N	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - Homewood Road	3.30	5.30	3.0	15.0	48.7	31.5	
2 - A595 Egremont Road	3.20	7.70	72.0	54.0	48.7	36.0	
3 - A595 Hensingham Bypass	4.30	5.80	3.8	10.0	48.7	38.0	
4 - B5295 Egremont Road N	3.80	5.60	5.6	42.0	48.7	19.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Homewood Road	0.506	1168
2 - A595 Egremont Road	0.699	2127
3 - A595 Hensingham Bypass	0.532	1388
4 - B5295 Egremont Road N	0.596	1511

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)
D5	2032 Base + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	373	100.000
2 - A595 Egremont Road		✓	1231	100.000
3 - A595 Hensingham Bypass		✓	842	100.000
4 - B5295 Egremont Road N		✓	302	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Homewood Road	2 - A595 Egremont Road	3 - A595 Hensingham Bypass	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	181	189	3
	2 - A595 Egremont Road	261	0	649	321
	3 - A595 Hensingham Bypass	235	607	0	0
	4 - B5295 Egremont Road N	4	279	19	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
		1 - Homewood Road	2 - A595 Egremont Road	3 - A595 Hensingham Bypass	4 - B5295 Egremont Road N
From	1 - Homewood Road	0	1	1	0
	2 - A595 Egremont Road	0	0	4	1
	3 - A595 Hensingham Bypass	2	6	0	1
	4 - B5295 Egremont Road N	0	1	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.62	14.30	1.6	B
2 - A595 Egremont Road	0.69	6.04	2.3	A
3 - A595 Hensingham Bypass	0.89	29.74	7.2	D
4 - B5295 Egremont Road N	0.42	7.97	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	281	677	825	0.340	279	0.5	6.628	A
2 - A595 Egremont Road	927	158	2017	0.460	923	0.9	3.349	A
3 - A595 Hensingham Bypass	634	439	1155	0.549	629	1.3	7.111	A
4 - B5295 Egremont Road N	227	825	1019	0.223	226	0.3	4.576	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	335	810	757	0.443	334	0.8	8.569	A
2 - A595 Egremont Road	1107	189	1995	0.555	1105	1.3	4.133	A
3 - A595 Hensingham Bypass	757	525	1109	0.683	753	2.2	10.503	B
4 - B5295 Egremont Road N	271	988	922	0.295	271	0.4	5.577	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	411	983	670	0.613	408	1.5	13.693	B
2 - A595 Egremont Road	1355	231	1966	0.690	1352	2.2	5.960	A
3 - A595 Hensingham Bypass	927	642	1047	0.886	910	6.5	24.906	C
4 - B5295 Egremont Road N	333	1196	797	0.417	331	0.7	7.776	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service

1 - Homewood Road	411	994	664	0.618	410	1.6	14.297	B
2 - A595 Egremont Road	1355	232	1965	0.690	1355	2.3	6.043	A
3 - A595 Hensingham Bypass	927	644	1046	0.887	924	7.2	29.744	D
4 - B5295 Egremont Road N	333	1212	788	0.422	332	0.7	7.970	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	335	829	748	0.448	338	0.8	8.937	A
2 - A595 Egremont Road	1107	191	1993	0.555	1110	1.3	4.193	A
3 - A595 Hensingham Bypass	757	528	1107	0.683	776	2.3	12.017	B
4 - B5295 Egremont Road N	271	1012	907	0.299	273	0.4	5.734	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	281	685	821	0.342	282	0.5	6.763	A
2 - A595 Egremont Road	927	160	2015	0.460	928	0.9	3.393	A
3 - A595 Hensingham Bypass	634	441	1154	0.550	638	1.3	7.380	A
4 - B5295 Egremont Road N	227	835	1013	0.224	228	0.3	4.631	A

2032 Base + Development, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	2 - A595 Egremont Road - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Standard Roundabout		1, 2, 3, 4	8.71	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 Base + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Homewood Road		✓	447	100.000
2 - A595 Egremont Road		✓	1283	100.000
3 - A595 Hensingham Bypass		✓	712	100.000
4 - B5295 Egremont Road N		✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Homewood Road	2 - A595 Egremont Road	3 - A595 Hensingham Bypass	4 - B5295 Egremont Road N
	1 - Homewood Road	0	322	118	7
	2 - A595 Egremont Road	145	0	866	272
	3 - A595 Hensingham Bypass	120	592	0	0
	4 - B5295 Egremont Road N	4	215	6	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Homewood Road	2 - A595 Egremont Road	3 - A595 Hensingham Bypass	4 - B5295 Egremont Road N
	1 - Homewood Road	0	0	0	0
	2 - A595 Egremont Road	1	0	1	1
	3 - A595 Hensingham Bypass	1	1	0	0
	4 - B5295 Egremont Road N	0	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Homewood Road	0.69	16.12	2.1	C
2 - A595 Egremont Road	0.70	5.92	2.3	A
3 - A595 Hensingham Bypass	0.69	10.20	2.2	B
4 - B5295 Egremont Road N	0.26	5.14	0.4	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	337	609	859	0.392	334	0.6	6.818	A
2 - A595 Egremont Road	966	98	2058	0.469	962	0.9	3.306	A
3 - A595 Hensingham Bypass	536	318	1219	0.440	533	0.8	5.274	A
4 - B5295 Egremont Road N	169	642	1128	0.150	169	0.2	3.750	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	402	729	798	0.503	400	1.0	9.011	A
2 - A595 Egremont Road	1153	117	2045	0.564	1152	1.3	4.064	A
3 - A595 Hensingham Bypass	640	381	1186	0.540	639	1.2	6.625	A
4 - B5295 Egremont Road N	202	769	1052	0.192	202	0.2	4.232	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	492	891	716	0.687	488	2.1	15.457	C
2 - A595 Egremont Road	1413	143	2027	0.697	1409	2.3	5.843	A
3 - A595 Hensingham Bypass	784	465	1141	0.687	780	2.1	9.974	A
4 - B5295 Egremont Road N	248	939	951	0.261	247	0.3	5.114	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	492	895	715	0.689	492	2.1	16.116	C
2 - A595 Egremont Road	1413	144	2026	0.697	1413	2.3	5.923	A
3 - A595 Hensingham Bypass	784	467	1140	0.688	784	2.2	10.197	B
4 - B5295 Egremont Road N	248	943	948	0.261	248	0.4	5.139	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	402	735	796	0.505	406	1.0	9.344	A
2 - A595 Egremont Road	1153	119	2044	0.564	1157	1.3	4.121	A
3 - A595 Hensingham Bypass	640	383	1185	0.540	644	1.2	6.770	A
4 - B5295 Egremont Road N	202	775	1049	0.193	203	0.2	4.257	A

18:00 - 18:15

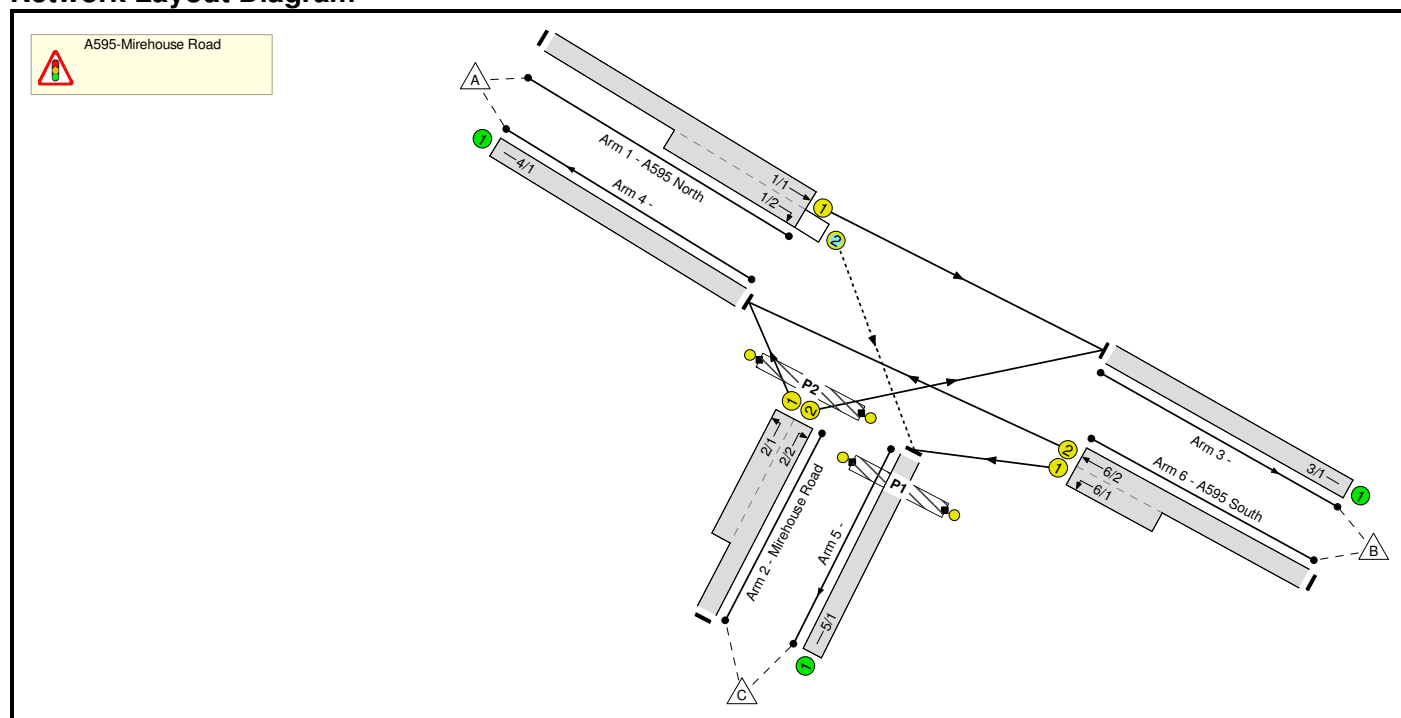
Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Homewood Road	337	614	857	0.393	338	0.7	6.959	A
2 - A595 Egremont Road	966	99	2058	0.469	968	0.9	3.342	A
3 - A595 Hensingham Bypass	536	320	1218	0.440	538	0.8	5.356	A
4 - B5295 Egremont Road N	169	647	1125	0.151	170	0.2	3.768	A

Full Input Data And Results
Full Input Data And Results

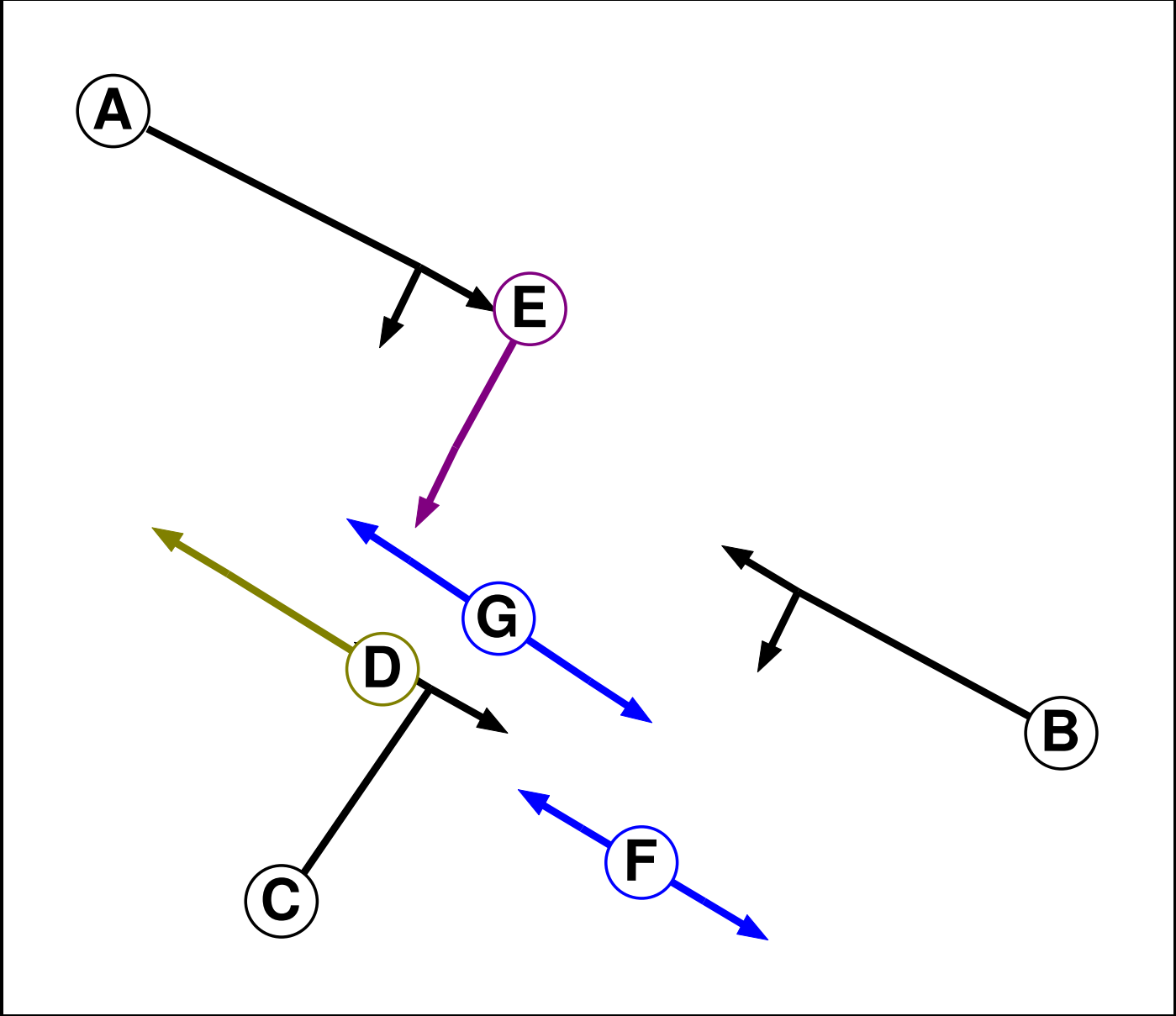
User and Project Details

Project:	Cleator Moor Innovation Quarter, Leconfield Ind Estate
Title:	A595/ Mire House Road Traffic Signals
Location:	
Client:	Copeland Borough Council
Design Layout Ref:	As Existing
Date Started:	Feb 2022
Date Completed:	Feb 2022
Model Purpose:	Test impact of development generated traffic
Flow Details:	Baseline flows supplied from CCC SATURN model
Checked By:	GW
Checked By Date:	28 Feb 2022
Additional detail:	
File name:	784-B030277 Leconfield Ind Est_A595-Mirehouse GW Review.lsg3x
Author:	Ellie Bunn
Company:	Tetra Tech
Address:	4th Floor, Rotterdam House, 116 Quayside, Newcastle Upon Tyne, NE1 3DY

Network Layout Diagram



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	Filter	C	4	0
E	Ind. Arrow	A	4	4
F	Pedestrian		6	6
G	Pedestrian		6	6

Full Input Data And Results

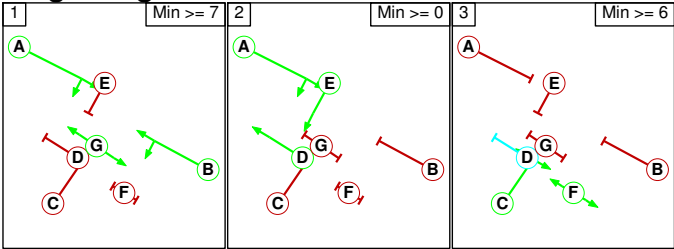
Phase Intergreens Matrix

Terminating Phase	Starting Phase							
		A	B	C	D	E	F	G
	A		-	5	-	-	8	-
	B	-		6	6	3	7	-
	C	6	5		-	6	-	5
	D	-	5	-		-	-	5
	E	-	5	5	-		8	-
	F	6	6	-	-	6		-
	G	-	-	7	7	-	-	

Phases in Stage

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

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		7 8
	2	X	8
3	6	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: A595-Mirehouse Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
1/2 (A595 North)	5/1 (Right)	1439	0	6/1	1.09	All	2.00	-	0.50	2	2.00
				6/2	1.09	All					

Full Input Data And Results

Lane Input Data

Junction: A595-Mirehouse Road												
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 (A595 North)	U	A	2	3	60.0	Geom	-	3.30	0.00	Y	Arm 3 Ahead	Inf
1/2 (A595 North)	O	A E	2	3	11.0	Geom	-	3.20	0.00	Y	Arm 5 Right	13.00
2/1 (Mirehouse Road)	U	C D	2	3	10.0	Geom	-	3.00	7.60	Y	Arm 4 Left	32.00
2/2 (Mirehouse Road)	U	C	2	3	60.0	Geom	-	3.00	7.60	Y	Arm 3 Right	31.00
3/1	U		2	3	60.0	Inf	-	-	-	-	-	-
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1 (A595 South)	U	B	2	3	7.0	Geom	-	3.20	0.00	Y	Arm 5 Left	33.00
6/2 (A595 South)	U	B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm 4 Ahead	Inf

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2022 Base AM'	08:00	09:00	01:00	
2: '2022 Base PM'	17:00	18:00	01:00	
3: '2032 No Dev AM'	08:00	09:00	01:00	
4: '2032 No Dev PM'	17:00	18:00	01:00	
5: '2032 With Dev AM'	08:00	09:00	01:00	
6: '2032 With Dev PM'	17:00	18:00	01:00	

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	709	144	853
	B	662	0	63	725
	C	178	191	0	369
	Tot.	840	900	207	1947

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2022 Base AM
Junction: A595-Mirehouse Road	
1/1 (with short)	853(In) 709(Out)
1/2 (short)	144
2/1 (short)	178
2/2 (with short)	369(In) 191(Out)
3/1	900
4/1	840
5/1	207
6/1 (short)	63
6/2 (with short)	725(In) 662(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	617	241	858
	B	976	0	192	1168
	C	95	146	0	241
	Tot.	1071	763	433	2267

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2022 Base PM
Junction: A595-Mirehouse Road	
1/1 (with short)	858(In) 617(Out)
1/2 (short)	241
2/1 (short)	95
2/2 (with short)	241(In) 146(Out)
3/1	763
4/1	1071
5/1	433
6/1 (short)	192
6/2 (with short)	1168(In) 976(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 3: '2032 No Dev AM' (FG3: '2032 No Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	762	155	917
	B	711	0	67	778
	C	192	205	0	397
	Tot.	903	967	222	2092

Traffic Lane Flows

Lane	Scenario 3: 2032 No Dev AM
Junction: A595-Mirehouse Road	
1/1 (with short)	917(In) 762(Out)
1/2 (short)	155
2/1 (short)	192
2/2 (with short)	397(In) 205(Out)
3/1	967
4/1	903
5/1	222
6/1 (short)	67
6/2 (with short)	778(In) 711(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 4: '2032 No Dev PM' (FG4: '2032 No Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	660	258	918
	B	1045	0	206	1251
	C	101	156	0	257
	Tot.	1146	816	464	2426

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2032 No Dev PM
Junction: A595-Mirehouse Road	
1/1 (with short)	918(In) 660(Out)
1/2 (short)	258
2/1 (short)	101
2/2 (with short)	257(In) 156(Out)
3/1	816
4/1	1146
5/1	464
6/1 (short)	206
6/2 (with short)	1251(In) 1045(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 5: '2032 With Dev AM' (FG5: '2032 With Dev AM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	762	169	931
	B	711	0	67	778
	C	239	205	0	444
	Tot.	950	967	236	2153

Traffic Lane Flows

Lane	Scenario 5: 2032 With Dev AM
Junction: A595-Mirehouse Road	
1/1 (with short)	931(In) 762(Out)
1/2 (short)	169
2/1 (short)	239
2/2 (with short)	444(In) 205(Out)
3/1	967
4/1	950
5/1	236
6/1 (short)	67
6/2 (with short)	778(In) 711(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 6: '2032 With Dev PM' (FG6: '2032 With Dev PM', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Destination					
Origin		A	B	C	Tot.
	A	0	660	307	967
	B	1045	0	206	1251
	C	111	156	0	267
	Tot.	1156	816	513	2485

Traffic Lane Flows

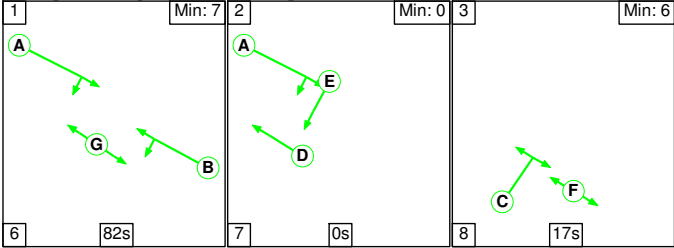
Lane	Scenario 6: 2032 With Dev PM
Junction: A595-Mirehouse Road	
1/1 (with short)	967(In) 660(Out)
1/2 (short)	307
2/1 (short)	111
2/2 (with short)	267(In) 156(Out)
3/1	816
4/1	1156
5/1	513
6/1 (short)	206
6/2 (with short)	1251(In) 1045(Out)

Lane Saturation Flows

Junction: A595-Mirehouse Road								
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 (A595 North)	3.30	0.00	Y	Arm 3 Ahead	Inf	100.0 %	1945	1945
1/2 (A595 North)	3.20	0.00	Y	Arm 5 Right	13.00	100.0 %	1735	1735
2/1 (Mirehouse Road)	3.00	7.60	Y	Arm 4 Left	32.00	100.0 %	1524	1524
2/2 (Mirehouse Road)	3.00	7.60	Y	Arm 3 Right	31.00	100.0 %	1522	1522
3/1	Infinite Saturation Flow						Inf	Inf
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1 (A595 South)	3.20	0.00	Y	Arm 5 Left	33.00	100.0 %	1851	1851
6/2 (A595 South)	3.20	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1935	1935

Scenario 1: '2022 Base AM' (FG1: '2022 Base AM', Plan 1: 'Network Control Plan 1')

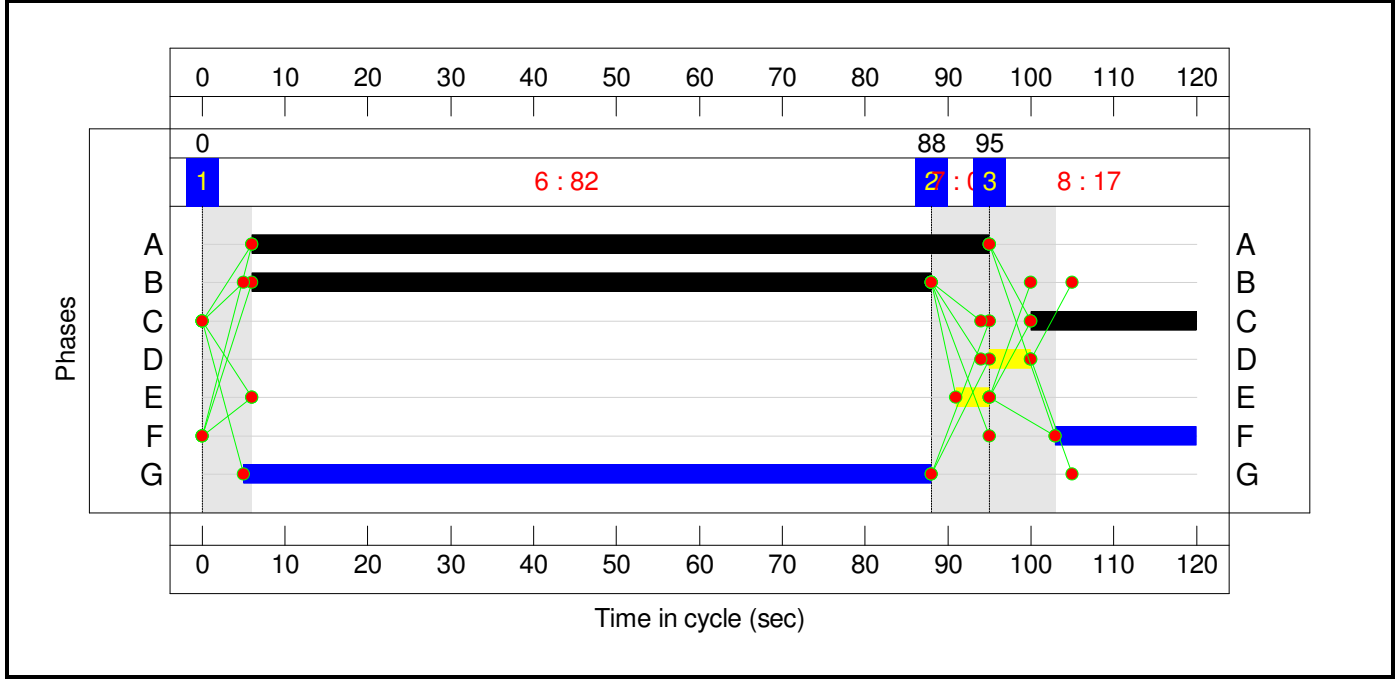
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	82	0	17
Change Point	0	88	95

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

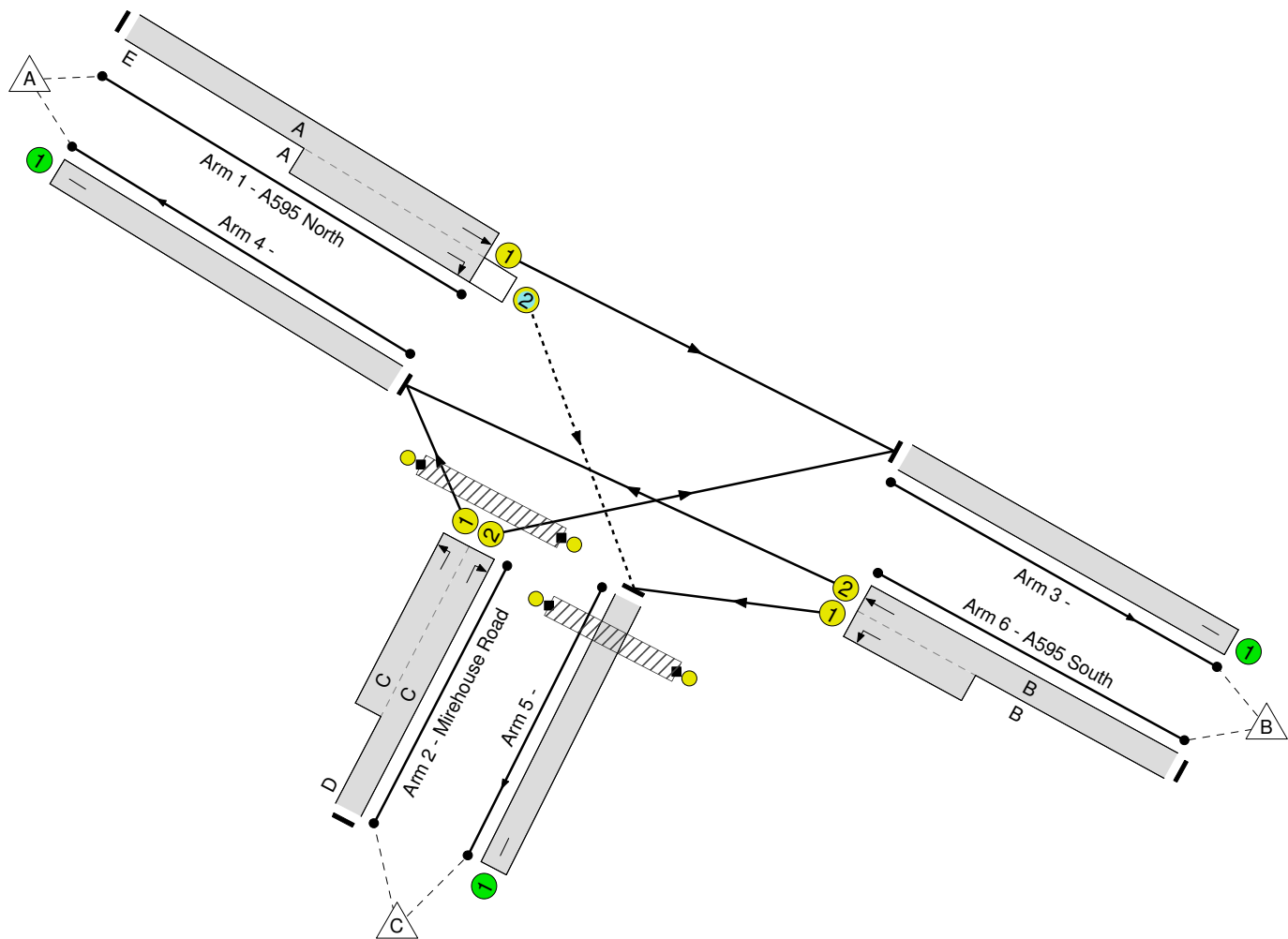


A595-Mirehouse Road

PRC: 25.5 %

Total Traffic Delay: 10.4 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	71.7%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	89	4	853	1945:1735	1254+255	56.5 : 56.5%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	20:25	5	369	1522:1524	266+248	71.7 : 71.7%
3/1		U	N/A	N/A	-		-	-	-	900	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	840	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	207	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	82	-	725	1935:1851	1237+118	53.5 : 53.5%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	17	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	83	-	0	-	0	0.0%

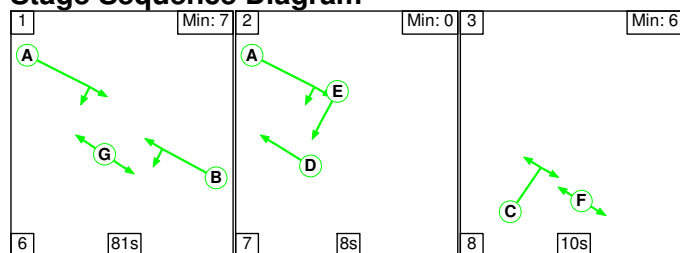
Full Input Data And Results

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Full Input Data And Results

Scenario 2: '2022 Base PM' (FG2: '2022 Base PM', Plan 1: 'Network Control Plan 1')

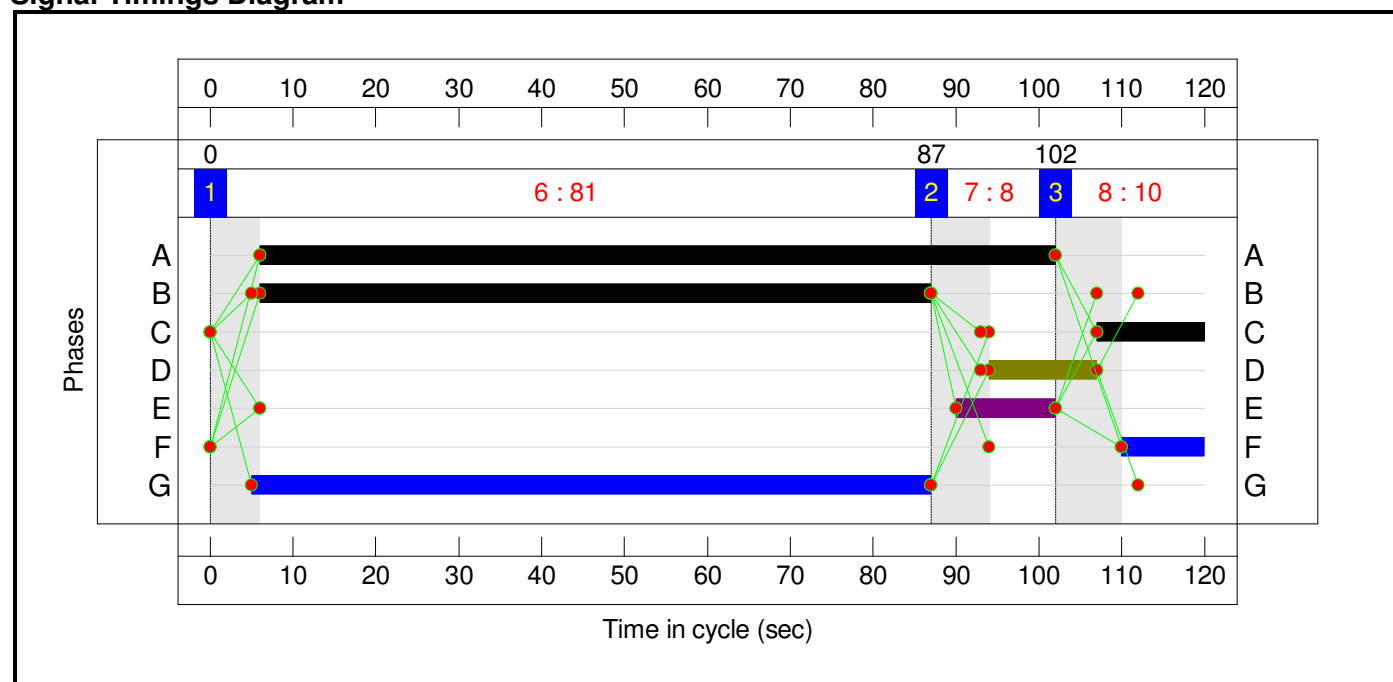
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	81	8	10
Change Point	0	87	102

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

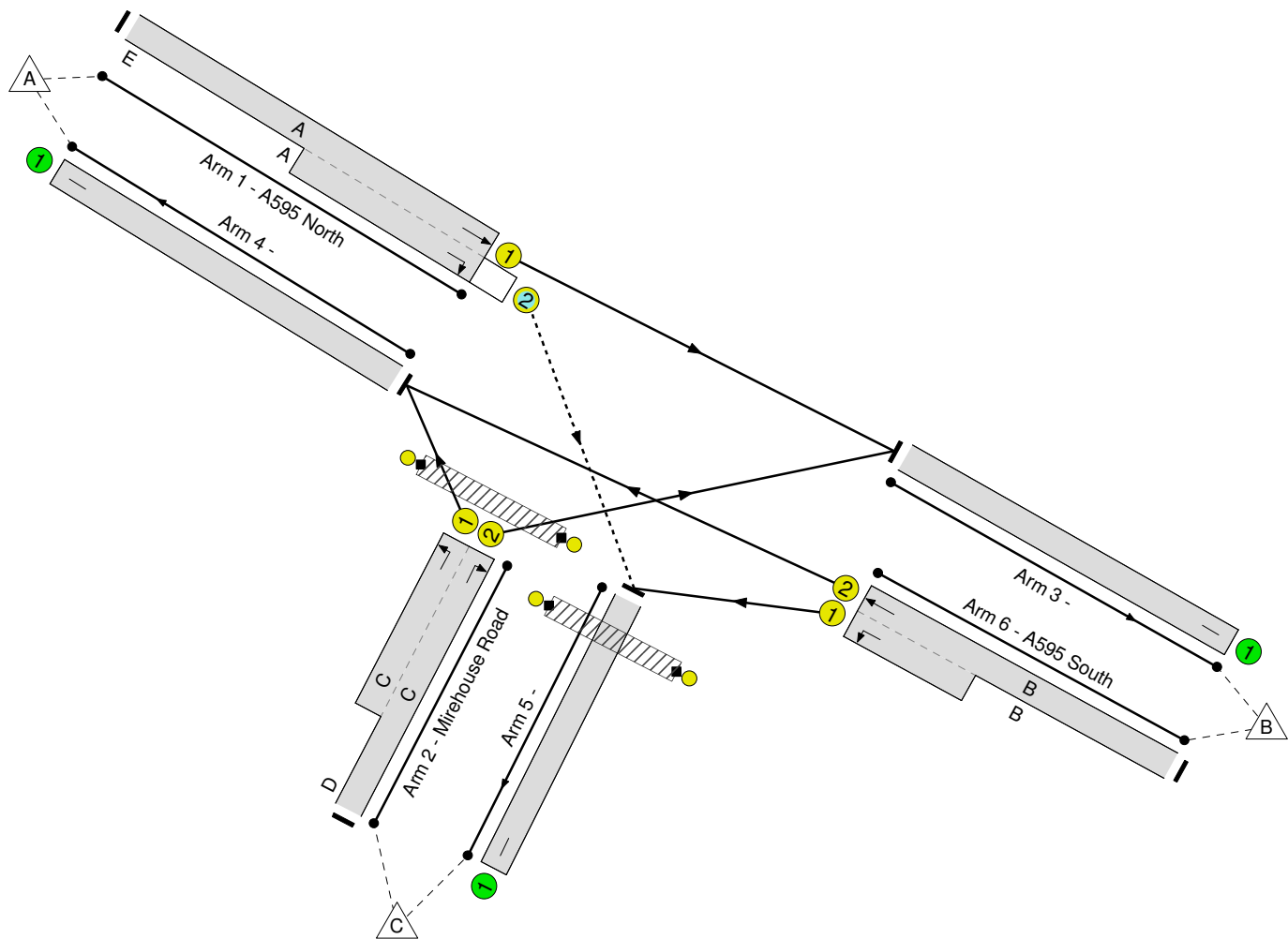


A595-Mirehouse Road

PRC: 4.5 %

Total Traffic Delay: 18.9 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

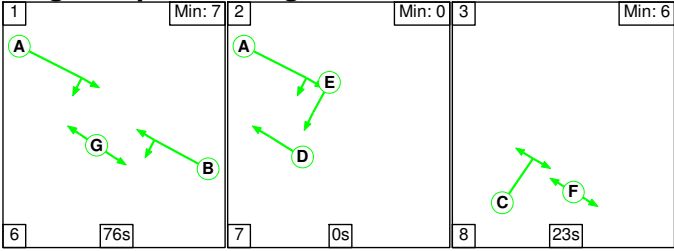
Network Results

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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	86.2%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	96	12	858	1945:1735	737+288	83.7 : 83.7%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	13:26	13	241	1522:1524	178+116	82.2 : 82.2%
3/1		U	N/A	N/A	-		-	-	-	763	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	1071	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	433	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	81	-	1168	1935:1851	1133+223	86.2 : 86.2%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	10	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	82	-	0	-	0	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: A595/ Mire House Road Traffic Signals	-	-	40	188	13	9.8	7.6	1.4	18.9	-	-	-	-
A595-Mirehouse Road	-	-	40	188	13	9.8	7.6	1.4	18.9	-	-	-	-
1/1+1/2	858	858	40	188	13	2.4	2.5	1.4	6.3	26.4	5.8	2.5	8.3
2/2+2/1	241	241	-	-	-	3.1	2.1	-	5.3	78.5	4.7	2.1	6.9
3/1	763	763	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1071	1071	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	433	433	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2+6/1	1168	1168	-	-	-	4.3	3.0	-	7.4	22.7	27.8	3.0	30.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 4.5 Total Delay for Signalled Lanes (pcuHr): 18.89 Cycle Time (s): 120 PRC Over All Lanes (%): 4.5 Total Delay Over All Lanes(pcuHr): 18.89													

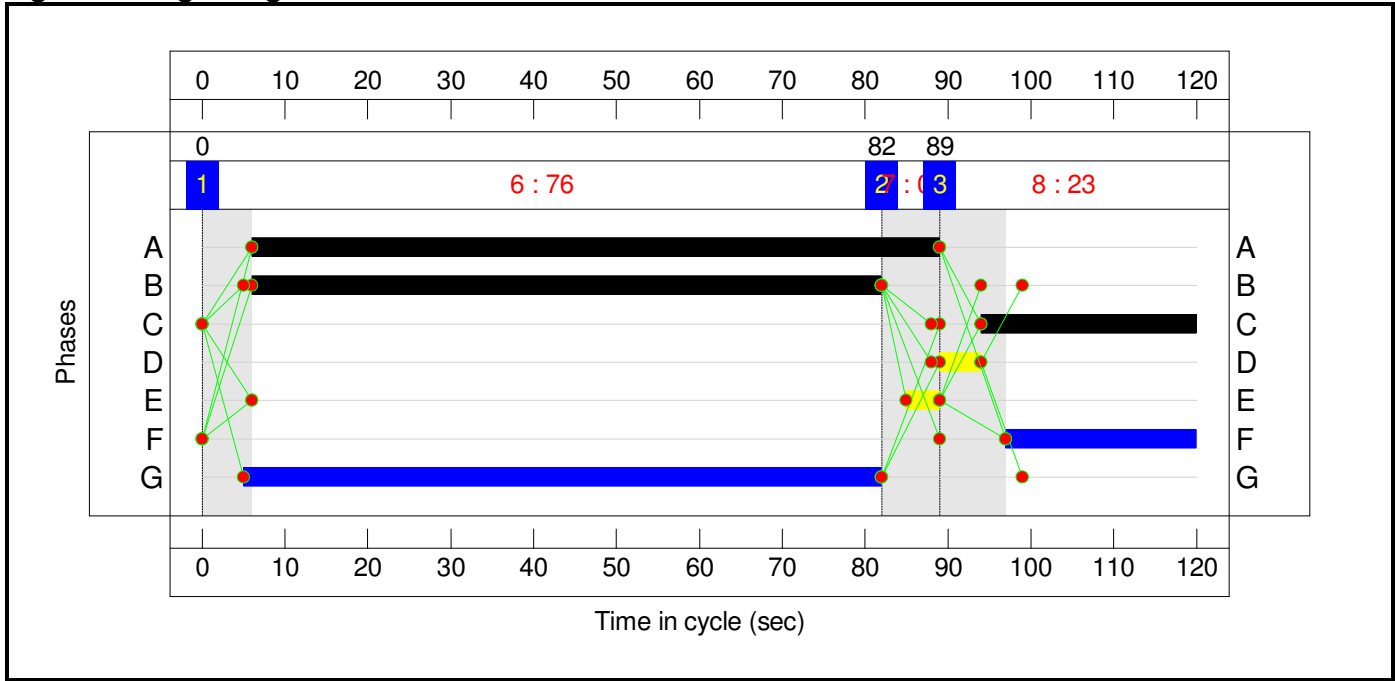
Stage Sequence Diagram



Stage Timings

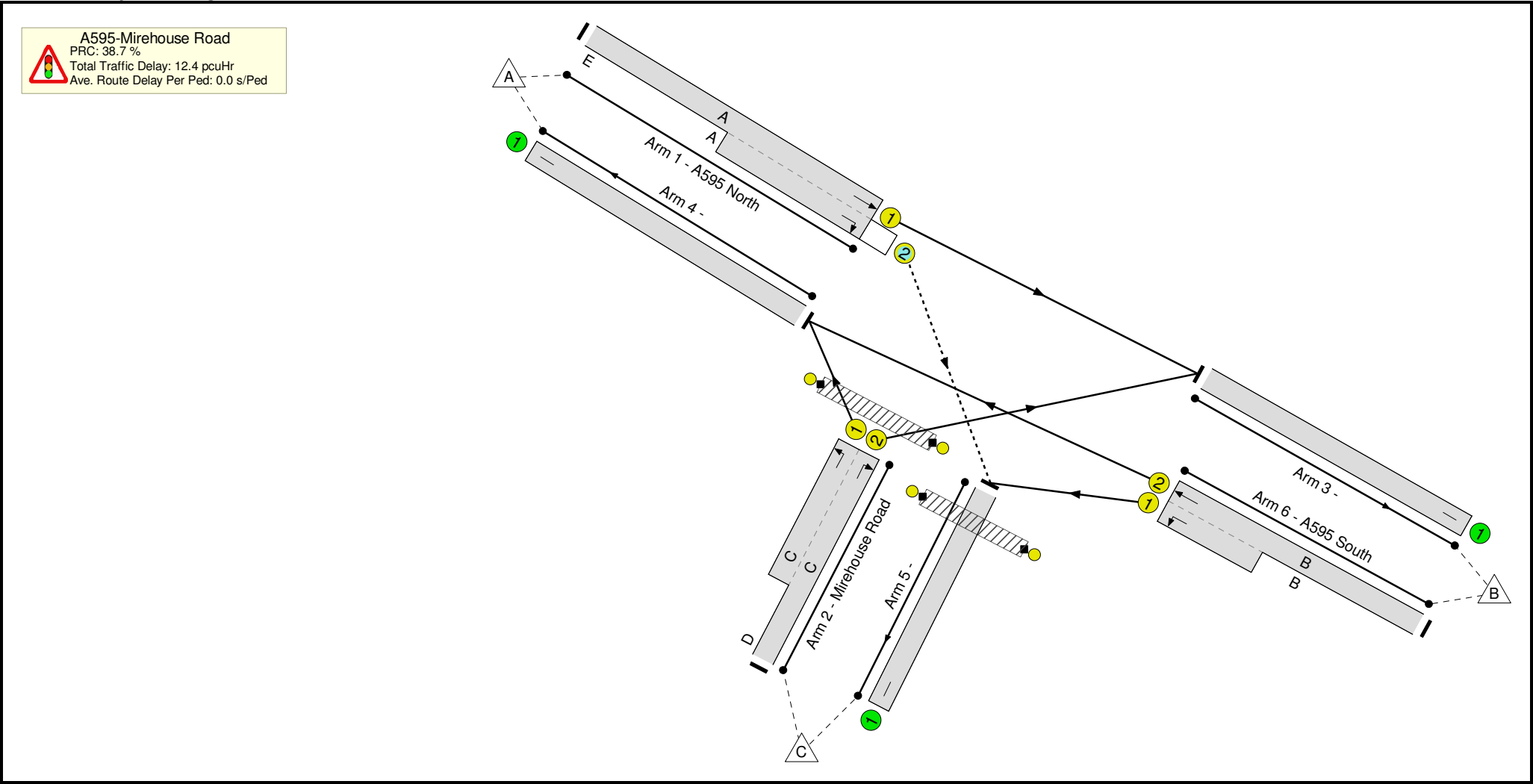
Stage	1	2	3
Duration	76	0	23
Change Point	0	82	89

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

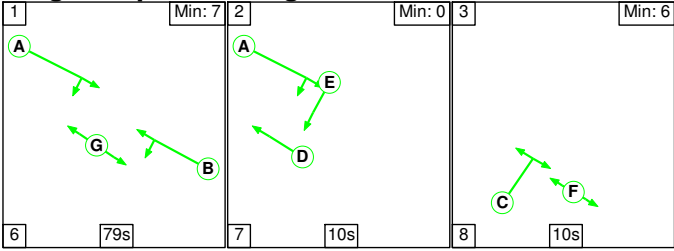
Network Results

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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	64.9%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	64.9%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	83	4	917	1945:1735	1175+239	64.9 : 64.9%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	26:31	5	397	1522:1524	320+299	64.1 : 64.1%
3/1		U	N/A	N/A	-		-	-	-	967	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	903	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	222	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	76	-	778	1935:1851	1149+108	61.9 : 61.9%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	77	-	0	-	0	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: A595/ Mire House Road Traffic Signals	-	-	146	6	3	9.2	2.6	0.6	12.4	-	-	-	-
A595-Mirehouse Road	-	-	146	6	3	9.2	2.6	0.6	12.4	-	-	-	-
1/1+1/2	917	917	146	6	3	2.2	0.9	0.6	3.8	14.8	13.0	0.9	14.0
2/2+2/1	397	397	-	-	-	4.3	0.9	-	5.2	47.4	6.1	0.9	7.0
3/1	967	967	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	903	903	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	222	222	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2+6/1	778	778	-	-	-	2.6	0.8	-	3.4	15.9	14.3	0.8	15.1
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): 38.7 Total Delay for Signalled Lanes (pcuHr): 12.44 Cycle Time (s): 120 PRC Over All Lanes (%): 38.7 Total Delay Over All Lanes(pcuHr): 12.44													

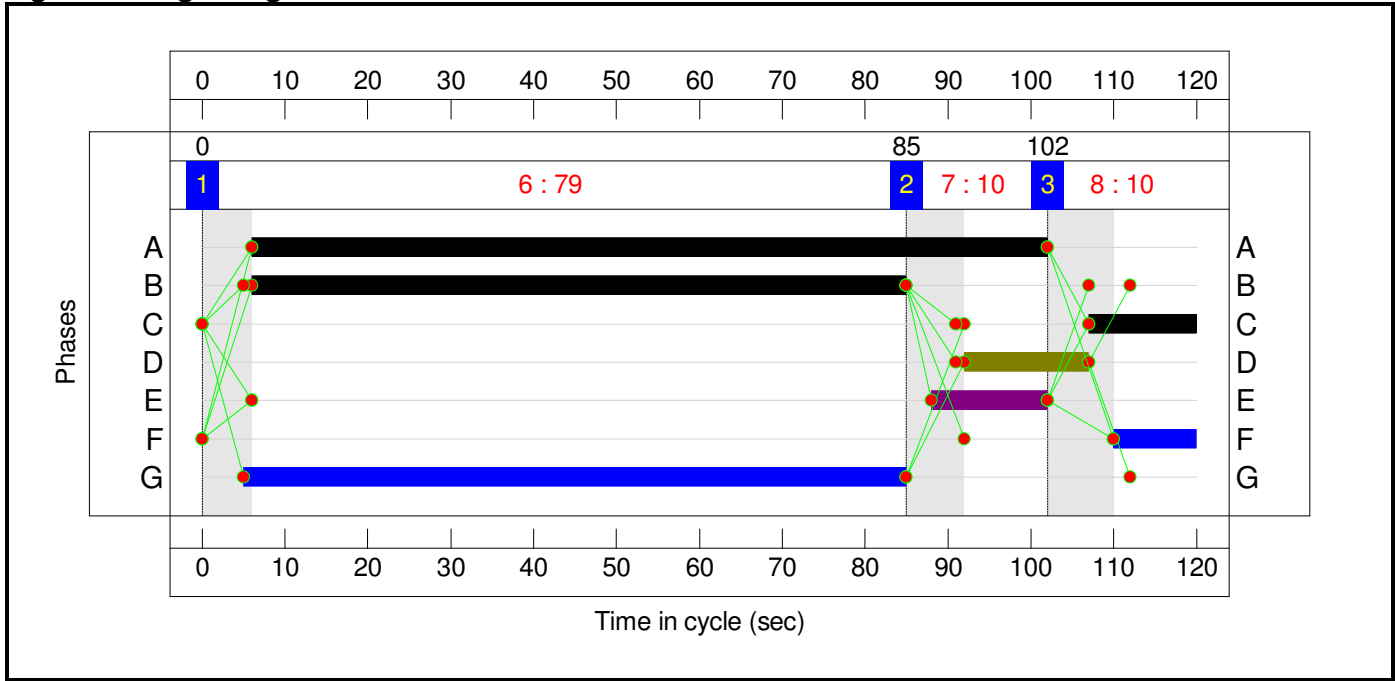
Stage Sequence Diagram



Stage Timings

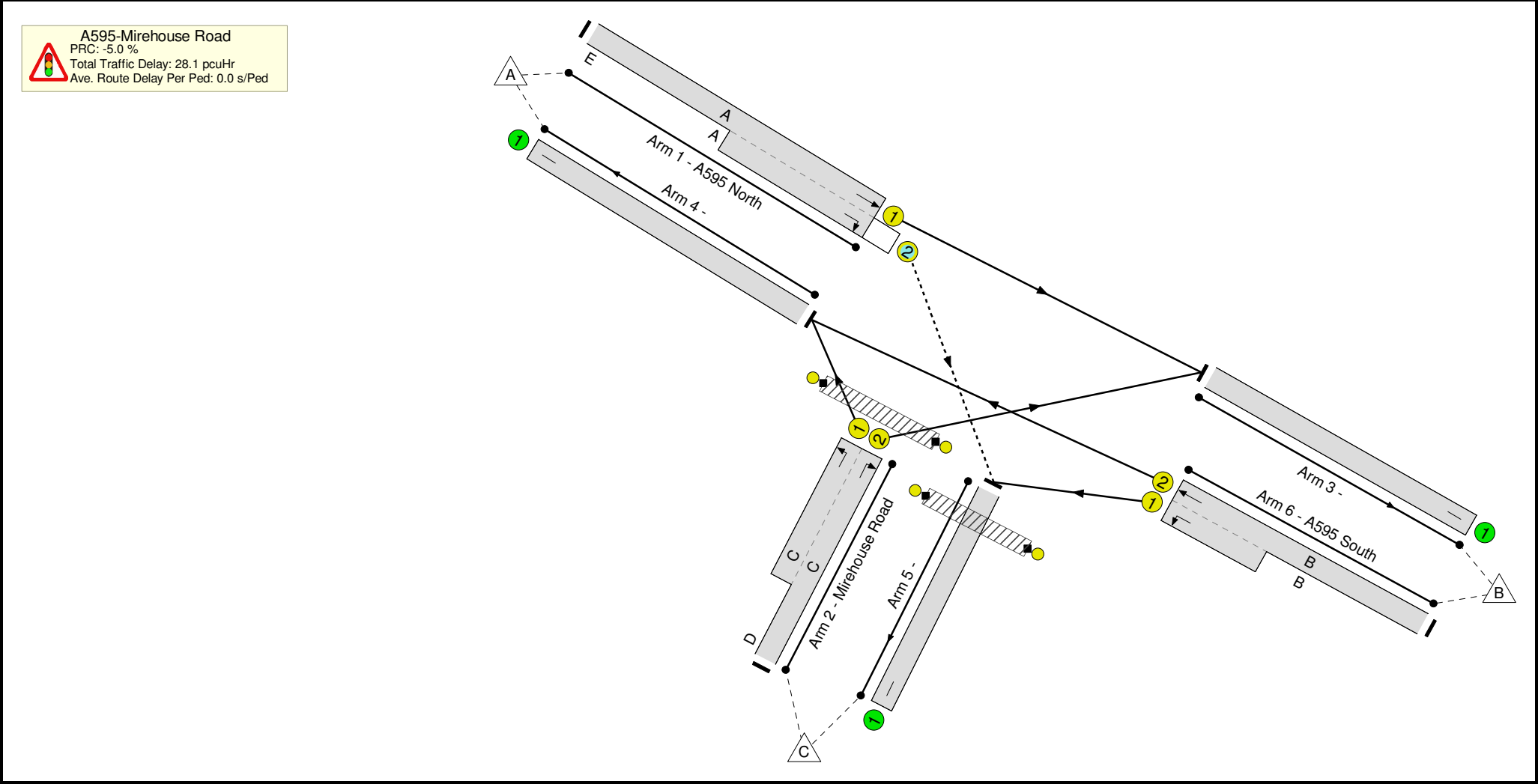
Stage	1	2	3
Duration	79	10	10
Change Point	0	85	102

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram



Full Input Data And Results

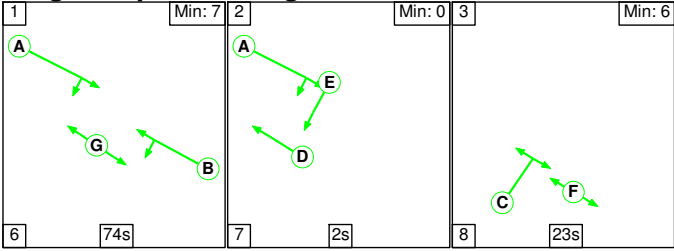
Network Results

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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	94.5%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	94.5%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	96	14	918	1945:1735	728+284	90.7 : 90.7%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	13:28	15	257	1522:1524	178+115	87.9 : 87.9%
3/1		U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	1146	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	464	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	79	-	1251	1935:1851	1106+218	94.5 : 94.5%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	10	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	80	-	0	-	0	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: A595/ Mire House Road Traffic Signals	-	-	8	217	34	12.0	14.7	1.4	28.1	-	-	-	-
A595-Mirehouse Road	-	-	8	217	34	12.0	14.7	1.4	28.1	-	-	-	-
1/1+1/2	918	918	8	217	34	2.8	4.5	1.4	8.7	34.3	8.4	4.5	12.8
2/2+2/1	257	257	-	-	-	3.3	3.1	-	6.4	89.4	5.1	3.1	8.2
3/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1146	1146	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	464	464	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2+6/1	1251	1251	-	-	-	5.8	7.2	-	13.0	37.4	35.5	7.2	42.6
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -5.0 Total Delay for Signalled Lanes (pcuHr): 28.13 Cycle Time (s): 120 PRC Over All Lanes (%): -5.0 Total Delay Over All Lanes(pcuHr): 28.13													

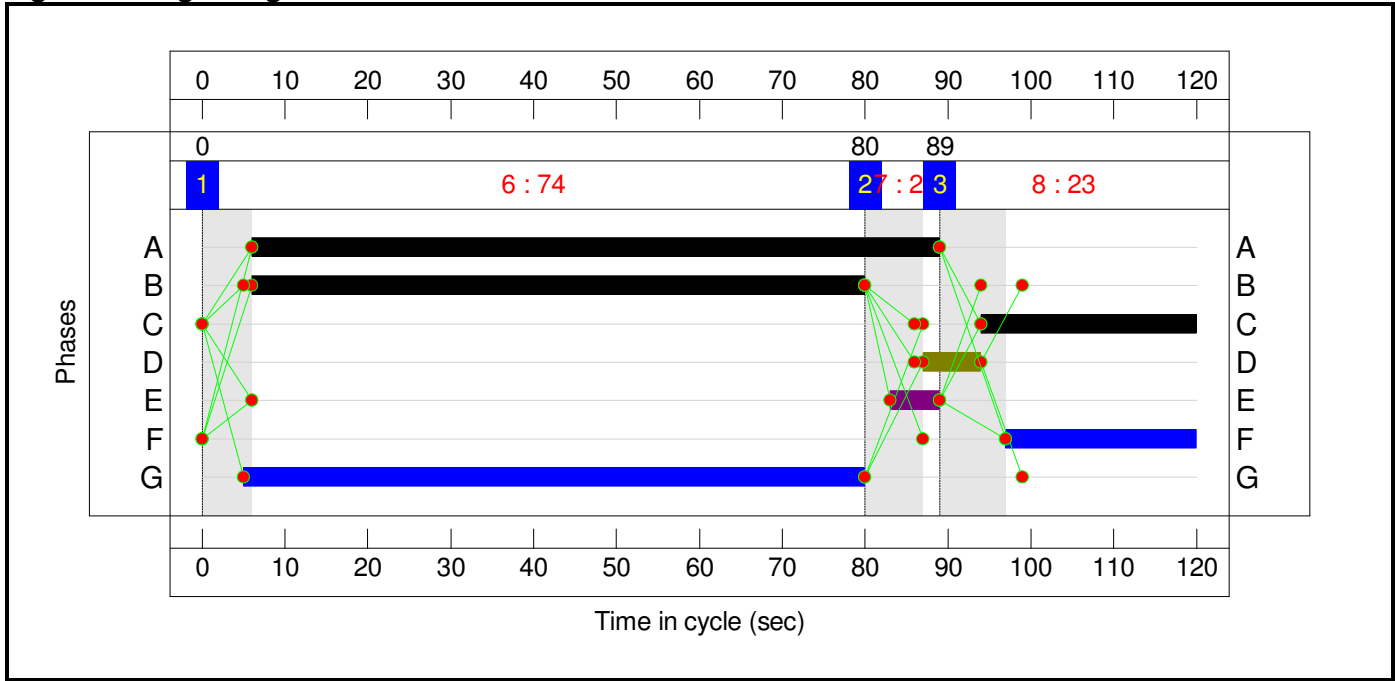
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	74	2	23
Change Point	0	80	89

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

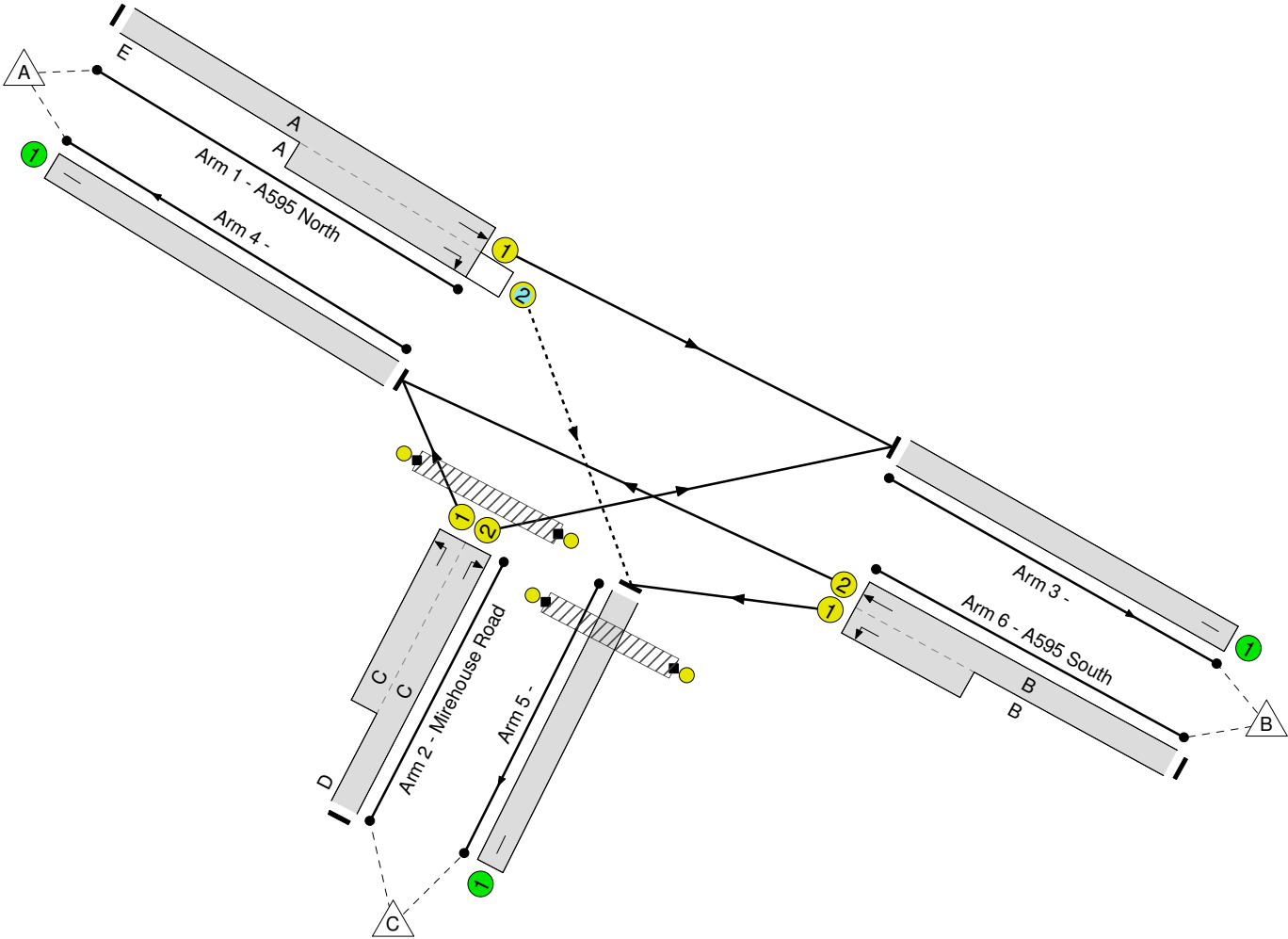


A595-Mirehouse Road

PRC: 37.1 %

Total Traffic Delay: 13.5 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



Full Input Data And Results

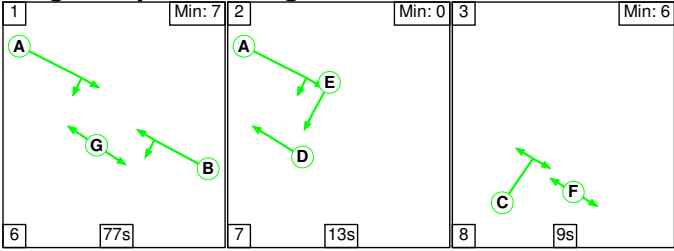
Network Results

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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	65.6%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	65.6%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	83	6	931	1945:1735	1161+257	65.6 : 65.6%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	26:33	7	444	1522:1524	315+368	65.0 : 65.0%
3/1		U	N/A	N/A	-		-	-	-	967	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	950	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	236	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	74	-	778	1935:1851	1120+106	63.5 : 63.5%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	23	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	75	-	0	-	0	0.0%

Full Input Data And Results

[illegible]

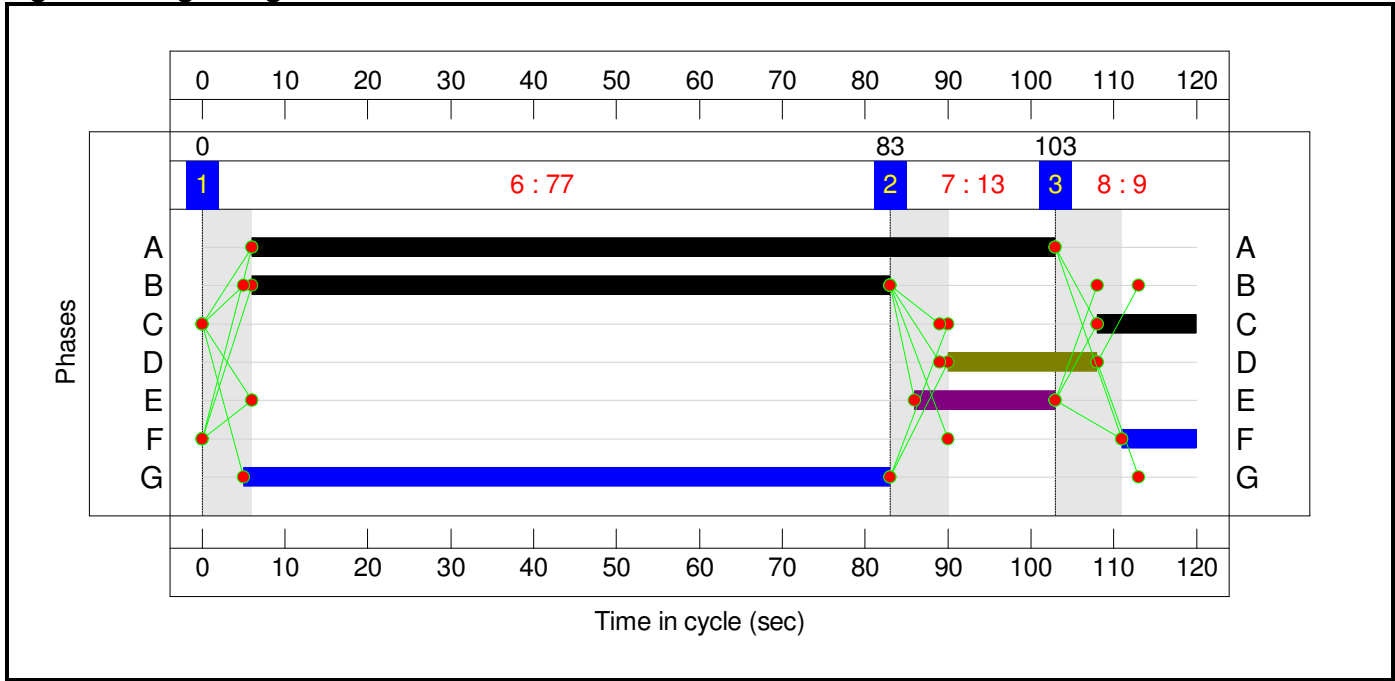
Stage Sequence Diagram



Stage Timings

Stage	1	2	3
Duration	77	13	9
Change Point	0	83	103

Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

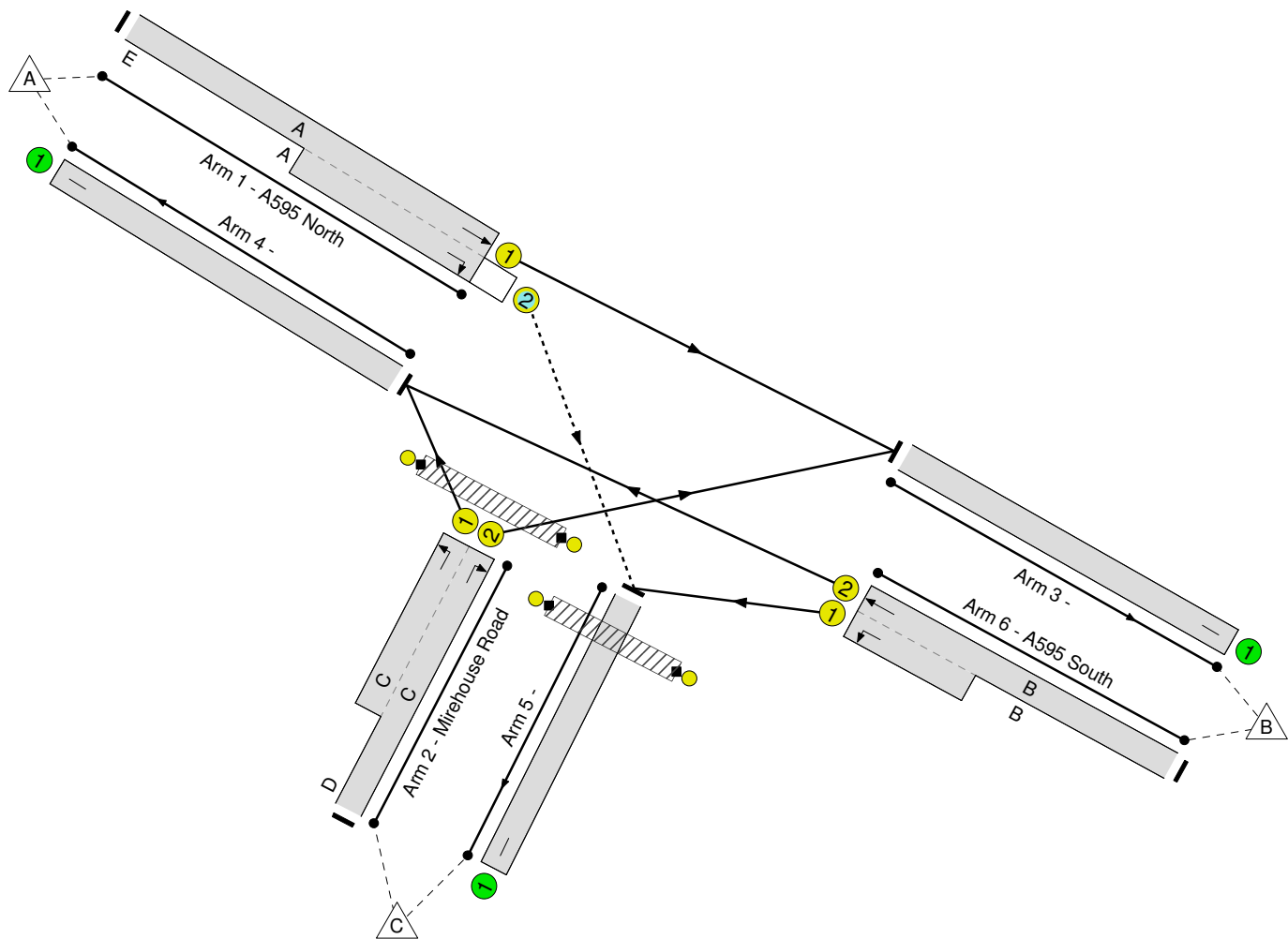


A595-Mirehouse Road

PRC: -7.6 %

Total Traffic Delay: 37.3 pcuHr

Ave. Route Delay Per Ped: 0.0 s/Ped



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: A595/ Mire House Road Traffic Signals	-	-	N/A	-	-		-	-	-	-	-	-	96.8%
A595-Mirehouse Road	-	-	N/A	-	-		-	-	-	-	-	-	96.8%
1/1+1/2	A595 North Ahead Right	U+O	N/A	N/A	A	E	1	97	17	967	1945:1735	697+324	94.7 : 94.7%
2/2+2/1	Mirehouse Road Right Left	U	N/A	N/A	C	D	1	12:30	18	267	1522:1524	165+117	94.6 : 94.6%
3/1		U	N/A	N/A	-		-	-	-	816	Inf	Inf	0.0%
4/1		U	N/A	N/A	-		-	-	-	1156	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	513	Inf	Inf	0.0%
6/2+6/1	A595 South Ahead Left	U	N/A	N/A	B		1	77	-	1251	1935:1851	1079+213	96.8 : 96.8%
Ped Link: P1	Unnamed Ped Link	-	N/A	-	F		1	9	-	0	-	0	0.0%
Ped Link: P2	Unnamed Ped Link	-	N/A	-	G		1	78	-	0	-	0	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: A595/ Mire House Road Traffic Signals	-	-	4	260	43	13.3	22.6	1.4	37.3	-	-	-	-
A595-Mirehouse Road	-	-	4	260	43	13.3	22.6	1.4	37.3	-	-	-	-
1/1+1/2	967	967	4	260	43	3.4	7.1	1.4	12.0	44.6	10.1	7.1	17.2
2/2+2/1	267	267	-	-	-	3.4	5.2	-	8.6	116.1	5.2	5.2	10.4
3/1	816	816	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
4/1	1156	1156	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	513	513	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/2+6/1	1251	1251	-	-	-	6.5	10.2	-	16.7	48.0	37.5	10.2	47.8
Ped Link: P1	0	0	-	-	-	-	-	-	-	-	-	-	-
Ped Link: P2	0	0	-	-	-	-	-	-	-	-	-	-	-
C1 PRC for Signalled Lanes (%): -7.6 Total Delay for Signalled Lanes (pcuHr): 37.27 Cycle Time (s): 120 PRC Over All Lanes (%): -7.6 Total Delay Over All Lanes(pcuHr): 37.27													

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.5.1.7462 © Copyright TRL Limited, 2019							
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Filename: Roundabout 1.j9

Path: \\lds-dc-vm-101\Data\Projects\784-B030277 Leconfield Industrial Estate\50 Project Input\52 Generated Data\Traffic Models\Junction 16 - A595 A5086 Howbank Roundabout

Report generation date: 02/03/2022 17:11:24

»2022 - Base, AM
 »2022 - Base, PM
 »2032 - Base, AM
 »2032 - Base , PM
 »2032 - Base + Development, AM
 »2032 - Base + Development, PM

Summary of junction performance

	AM				PM			
	Set ID	Queue (PCU)	Delay (s)	RFC	Set ID	Queue (PCU)	Delay (s)	RFC
	2022 - Base							
1 - A5086	D1	0.2	2.57	0.14	D2	0.2	2.64	0.16
2 - Egremont Byp		0.4	2.34	0.30		1.4	3.98	0.58
3 - Howbank Road		0.4	5.62	0.26		0.3	8.36	0.22
4 - A595 Clints Brow		0.6	3.60	0.38		0.9	4.33	0.47
	2032 - Base							
1 - A5086	D3	0.2	2.68	0.15	D4	0.2	2.74	0.17
2 - Egremont Byp		0.5	2.43	0.32		1.7	4.49	0.62
3 - Howbank Road		0.4	6.06	0.29		0.4	9.61	0.26
4 - A595 Clints Brow		0.7	3.81	0.41		1.0	4.70	0.50
	2032 - Base + Development							
1 - A5086	D5	0.2	2.70	0.16	D6	0.3	2.85	0.21
2 - Egremont Byp		0.5	2.49	0.33		1.7	4.60	0.63
3 - Howbank Road		0.5	6.41	0.32		0.4	9.79	0.27
4 - A595 Clints Brow		0.7	3.93	0.41		1.0	4.74	0.51

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

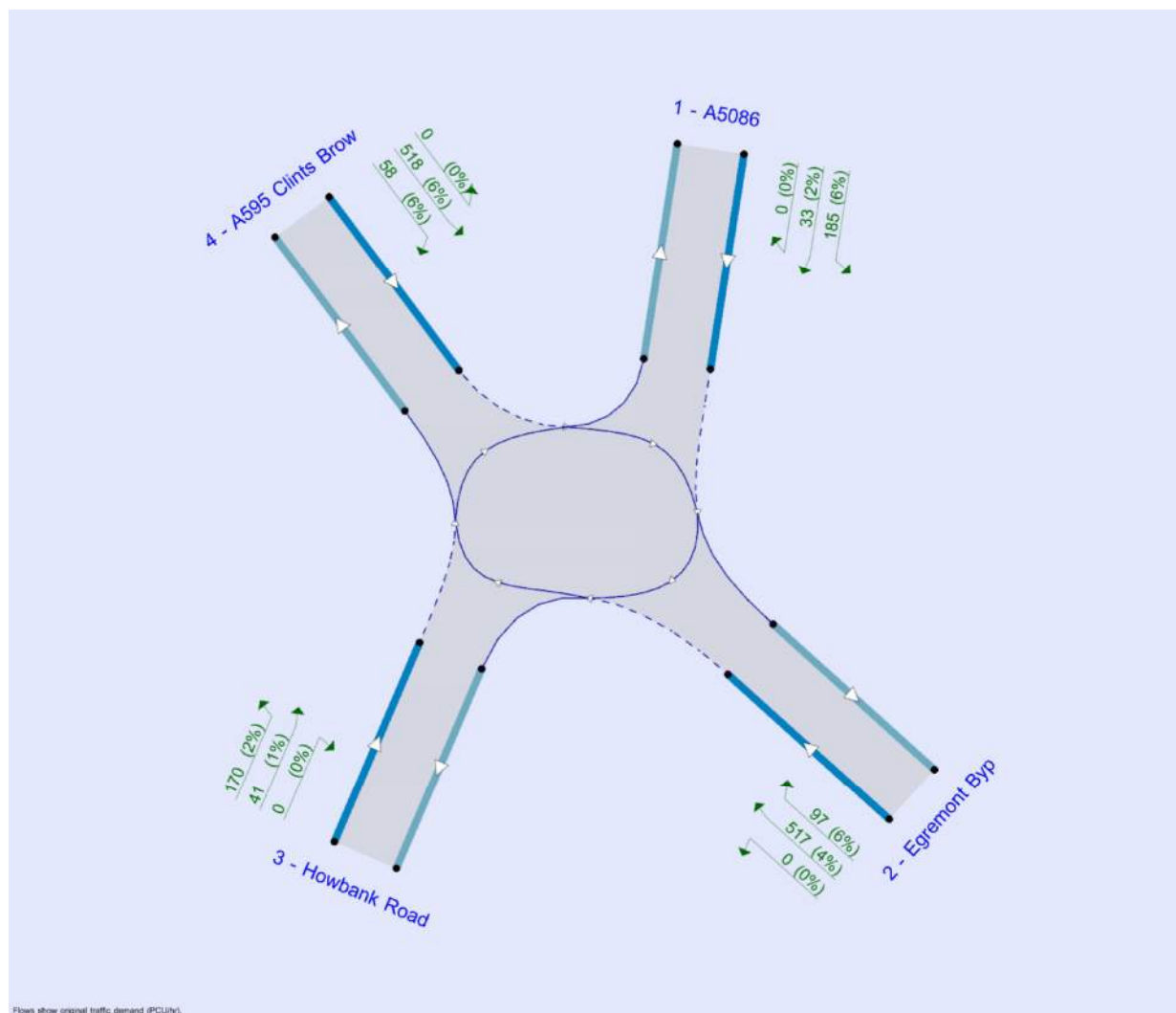
File summary

File Description

Title	A595 A5086 Howbank Roundabout
Location	A595/Howbank Road/A5086
Site number	
Date	16/02/2022
Version	
Status	(new file)
Identifier	
Client	Copeland Borough Council
Jobnumber	784-B030277
Enumerator	TT\NASSER.JAMILI
Description	

Units

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



Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 - Base	AM	ONE HOUR	07:45	09:15	15
D2	2022 - Base	PM	ONE HOUR	16:45	18:15	15
D3	2032 - Base	AM	ONE HOUR	07:45	09:15	15
D4	2032 - Base	PM	ONE HOUR	16:45	18:15	15
D5	2032 - Base + Development	AM	ONE HOUR	07:45	09:15	15
D6	2032 - Base + Development	PM	ONE HOUR	16:45	18:15	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2022 - Base, 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	3.25	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A5086	
2	Egremont Byp	
3	Howbank Road	
4	A595 Clints Brow	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	I' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit only
1 - A5086	4.10	8.20	25.8	36.0	50.0	23.5	
2 - Egremont Byp	5.20	8.40	28.7	24.0	50.0	24.5	
3 - Howbank Road	3.80	3.80	0.0	36.0	50.0	10.5	
4 - A595 Clints Brow	3.40	8.30	16.5	17.0	50.0	28.5	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - A5086	0.708	2157
2 - Egremont Byp	0.740	2353
3 - Howbank Road	0.550	1254
4 - A595 Clints Brow	0.624	1785

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2022 - Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	218	100.000
2 - Egremont Byp		✓	614	100.000
3 - Howbank Road		✓	211	100.000
4 - A595 Clints Brow		✓	576	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To				
		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	185	33	0
	2 - Egremont Byp	97	0	0	517
	3 - Howbank Road	41	0	0	170
	4 - A595 Clints Brow	0	518	58	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	6	2	0
	2 - Egremont Byp	6	0	0	4
	3 - Howbank Road	1	0	0	2
	4 - A595 Clints Brow	0	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.14	2.57	0.2	A
2 - Egremont Byp	0.30	2.34	0.4	A
3 - Howbank Road	0.26	5.62	0.4	A
4 - A595 Clints Brow	0.38	3.60	0.6	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	164	432	1851	0.089	164	0.1	2.237	A
2 - Egremont Byp	462	68	2302	0.201	461	0.3	2.035	A
3 - Howbank Road	159	461	1001	0.159	158	0.2	4.337	A
4 - A595 Clints Brow	434	104	1721	0.252	432	0.4	2.950	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	196	517	1791	0.109	196	0.1	2.366	A
2 - Egremont Byp	552	82	2292	0.241	552	0.3	2.153	A
3 - Howbank Road	190	552	951	0.199	189	0.3	4.802	A
4 - A595 Clints Brow	518	124	1708	0.303	517	0.5	3.195	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	240	633	1709	0.140	240	0.2	2.570	A
2 - Egremont Byp	676	100	2279	0.297	676	0.4	2.338	A
3 - Howbank Road	232	676	883	0.263	232	0.4	5.615	A
4 - A595 Clints Brow	634	152	1691	0.375	633	0.6	3.597	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	240	634	1708	0.140	240	0.2	2.571	A
2 - Egremont Byp	676	100	2278	0.297	676	0.4	2.338	A
3 - Howbank Road	232	676	883	0.263	232	0.4	5.623	A
4 - A595 Clints Brow	634	152	1691	0.375	634	0.6	3.600	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	196	518	1790	0.109	196	0.1	2.370	A
2 - Egremont Byp	552	82	2292	0.241	552	0.3	2.155	A
3 - Howbank Road	190	552	951	0.200	190	0.3	4.811	A
4 - A595 Clints Brow	518	124	1708	0.303	518	0.5	3.202	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	164	434	1850	0.089	164	0.1	2.239	A
2 - Egremont Byp	462	69	2302	0.201	463	0.3	2.039	A
3 - Howbank Road	159	463	1000	0.159	159	0.2	4.350	A
4 - A595 Clints Brow	434	104	1720	0.252	434	0.4	2.957	A

2022 - Base, 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	4.17	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2022 - Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	238	100.000
2 - Egremont Byp		✓	1139	100.000
3 - Howbank Road		✓	114	100.000
4 - A595 Clints Brow		✓	668	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	170	68	0
	2 - Egremont Byp	269	0	0	870
	3 - Howbank Road	36	0	0	78
	4 - A595 Clints Brow	0	514	154	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	1	0	0
	2 - Egremont Byp	2	0	0	2
	3 - Howbank Road	2	0	0	2
	4 - A595 Clints Brow	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.16	2.64	0.2	A
2 - Egremont Byp	0.58	3.98	1.4	A
3 - Howbank Road	0.22	8.36	0.3	A

4 - A595 Clints Brow	0.47	4.33	0.9	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	179	501	1803	0.099	179	0.1	2.237	A
2 - Egremont Byp	857	167	2229	0.385	855	0.6	2.655	A
3 - Howbank Road	86	855	784	0.109	85	0.1	5.249	A
4 - A595 Clints Brow	503	229	1643	0.306	501	0.4	3.182	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	214	600	1733	0.123	214	0.1	2.391	A
2 - Egremont Byp	1024	199	2205	0.464	1023	0.9	3.089	A
3 - Howbank Road	102	1023	692	0.148	102	0.2	6.225	A
4 - A595 Clints Brow	601	274	1615	0.372	600	0.6	3.582	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	262	734	1638	0.160	262	0.2	2.640	A
2 - Egremont Byp	1254	244	2172	0.577	1252	1.4	3.965	A
3 - Howbank Road	126	1252	566	0.222	125	0.3	8.319	A
4 - A595 Clints Brow	735	335	1576	0.467	734	0.9	4.314	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	262	735	1637	0.160	262	0.2	2.641	A
2 - Egremont Byp	1254	244	2172	0.577	1254	1.4	3.983	A
3 - Howbank Road	126	1254	565	0.222	126	0.3	8.356	A
4 - A595 Clints Brow	735	336	1576	0.467	735	0.9	4.326	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	214	602	1731	0.124	214	0.1	2.393	A
2 - Egremont Byp	1024	200	2205	0.464	1026	0.9	3.105	A
3 - Howbank Road	102	1026	690	0.148	103	0.2	6.256	A
4 - A595 Clints Brow	601	275	1614	0.372	602	0.6	3.597	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	179	504	1801	0.099	179	0.1	2.239	A
2 - Egremont Byp	857	167	2229	0.385	858	0.6	2.671	A
3 - Howbank Road	86	858	782	0.110	86	0.1	5.273	A
4 - A595 Clints Brow	503	230	1642	0.306	504	0.4	3.197	A

2032 - Base, 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	3.43	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2032 - Base	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	234	100.000
2 - Egremont Byp		✓	660	100.000
3 - Howbank Road		✓	227	100.000
4 - A595 Clints Brow		✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	198	36	0
	2 - Egremont Byp	104	0	0	556
	3 - Howbank Road	44	0	0	183
	4 - A595 Clints Brow	0	557	63	0

Vehicle Mix

Heavy Vehicle Percentages

		To			
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	6	2	0
	2 - Egremont Byp	6	0	0	4
	3 - Howbank Road	1	0	0	2
	4 - A595 Clints Brow	0	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.15	2.68	0.2	A
2 - Egremont Byp	0.32	2.43	0.5	A
3 - Howbank Road	0.29	6.06	0.4	A

4 - A595 Clints Brow	0.41	3.81	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	176	465	1828	0.096	176	0.1	2.295	A
2 - Egremont Byp	497	74	2298	0.216	496	0.3	2.083	A
3 - Howbank Road	171	496	982	0.174	170	0.2	4.510	A
4 - A595 Clints Brow	467	111	1716	0.272	465	0.4	3.046	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	210	557	1763	0.119	210	0.1	2.442	A
2 - Egremont Byp	593	89	2287	0.259	593	0.4	2.217	A
3 - Howbank Road	204	593	928	0.220	204	0.3	5.056	A
4 - A595 Clints Brow	557	133	1702	0.327	557	0.5	3.329	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	258	682	1675	0.154	257	0.2	2.676	A
2 - Egremont Byp	727	109	2272	0.320	726	0.5	2.429	A
3 - Howbank Road	250	726	855	0.292	249	0.4	6.046	A
4 - A595 Clints Brow	683	163	1684	0.405	682	0.7	3.804	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	258	683	1674	0.154	258	0.2	2.677	A
2 - Egremont Byp	727	109	2272	0.320	727	0.5	2.429	A
3 - Howbank Road	250	727	855	0.292	250	0.4	6.058	A
4 - A595 Clints Brow	683	163	1684	0.405	683	0.7	3.810	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	210	558	1762	0.119	211	0.1	2.446	A
2 - Egremont Byp	593	89	2287	0.259	594	0.4	2.218	A
3 - Howbank Road	204	594	928	0.220	205	0.3	5.072	A
4 - A595 Clints Brow	557	133	1702	0.327	558	0.5	3.337	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	176	467	1827	0.096	176	0.1	2.298	A
2 - Egremont Byp	497	75	2297	0.216	497	0.3	2.086	A
3 - Howbank Road	171	497	981	0.174	171	0.2	4.527	A
4 - A595 Clints Brow	467	112	1716	0.272	467	0.4	3.056	A

2032 - Base , 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	4.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2032 - Base	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	253	100.000
2 - Egremont Byp		✓	1219	100.000
3 - Howbank Road		✓	122	100.000
4 - A595 Clints Brow		✓	715	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	181	72	0
	2 - Egremont Byp	288	0	0	931
	3 - Howbank Road	39	0	0	83
	4 - A595 Clints Brow	0	550	165	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	1	0	0
	2 - Egremont Byp	2	0	0	2
	3 - Howbank Road	2	0	0	2
	4 - A595 Clints Brow	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.17	2.74	0.2	A
2 - Egremont Byp	0.62	4.49	1.7	A
3 - Howbank Road	0.26	9.61	0.4	A

4 - A595 Clints Brow	0.50	4.70	1.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	190	536	1778	0.107	190	0.1	2.283	A
2 - Egremont Byp	918	178	2221	0.413	915	0.7	2.805	A
3 - Howbank Road	92	915	751	0.122	91	0.1	5.558	A
4 - A595 Clints Brow	538	245	1632	0.330	536	0.5	3.312	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	227	642	1703	0.134	227	0.2	2.456	A
2 - Egremont Byp	1096	213	2195	0.499	1095	1.0	3.334	A
3 - Howbank Road	110	1095	652	0.168	109	0.2	6.759	A
4 - A595 Clints Brow	643	294	1602	0.401	642	0.7	3.785	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	279	786	1601	0.174	278	0.2	2.740	A
2 - Egremont Byp	1342	261	2160	0.621	1340	1.7	4.462	A
3 - Howbank Road	134	1340	518	0.259	134	0.4	9.546	A
4 - A595 Clints Brow	787	359	1561	0.504	786	1.0	4.680	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	279	787	1600	0.174	279	0.2	2.742	A
2 - Egremont Byp	1342	261	2160	0.622	1342	1.7	4.491	A
3 - Howbank Road	134	1342	516	0.260	134	0.4	9.609	A
4 - A595 Clints Brow	787	360	1561	0.504	787	1.0	4.699	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	227	644	1701	0.134	228	0.2	2.460	A
2 - Egremont Byp	1096	213	2195	0.499	1098	1.0	3.359	A
3 - Howbank Road	110	1098	650	0.169	110	0.2	6.807	A
4 - A595 Clints Brow	643	295	1601	0.401	644	0.7	3.802	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	190	539	1776	0.107	191	0.1	2.288	A
2 - Egremont Byp	918	179	2220	0.413	919	0.7	2.823	A
3 - Howbank Road	92	919	749	0.123	92	0.1	5.590	A
4 - A595 Clints Brow	538	247	1632	0.330	539	0.5	3.329	A

2032 - Base + Development, 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	3.54	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2032 - Base + Development	AM	ONE HOUR	07:45	09:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	247	100.000
2 - Egremont Byp		✓	688	100.000
3 - Howbank Road		✓	242	100.000
4 - A595 Clints Brow		✓	620	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	207	40	0
	2 - Egremont Byp	132	0	0	556
	3 - Howbank Road	59	0	0	183
	4 - A595 Clints Brow	0	557	63	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	6	2	0
	2 - Egremont Byp	6	0	0	4
	3 - Howbank Road	1	0	0	2
	4 - A595 Clints Brow	0	6	6	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.16	2.70	0.2	A
2 - Egremont Byp	0.33	2.49	0.5	A
3 - Howbank Road	0.32	6.41	0.5	A

4 - A595 Clints Brow	0.41	3.93	0.7	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	186	465	1828	0.102	185	0.1	2.308	A
2 - Egremont Byp	518	77	2295	0.226	517	0.3	2.112	A
3 - Howbank Road	182	517	970	0.188	181	0.2	4.636	A
4 - A595 Clints Brow	467	143	1696	0.275	465	0.4	3.096	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	222	557	1763	0.126	222	0.2	2.460	A
2 - Egremont Byp	618	93	2284	0.271	618	0.4	2.255	A
3 - Howbank Road	218	618	914	0.238	217	0.3	5.251	A
4 - A595 Clints Brow	557	172	1678	0.332	557	0.5	3.400	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	272	682	1675	0.162	272	0.2	2.702	A
2 - Egremont Byp	758	113	2269	0.334	757	0.5	2.485	A
3 - Howbank Road	266	757	838	0.318	266	0.5	6.394	A
4 - A595 Clints Brow	683	210	1654	0.413	682	0.7	3.920	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	272	683	1674	0.162	272	0.2	2.703	A
2 - Egremont Byp	758	113	2269	0.334	757	0.5	2.486	A
3 - Howbank Road	266	757	838	0.318	266	0.5	6.410	A
4 - A595 Clints Brow	683	210	1654	0.413	683	0.7	3.927	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	222	558	1762	0.126	222	0.2	2.462	A
2 - Egremont Byp	618	93	2284	0.271	619	0.4	2.257	A
3 - Howbank Road	218	619	914	0.238	218	0.3	5.270	A
4 - A595 Clints Brow	557	172	1678	0.332	558	0.5	3.411	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	186	467	1827	0.102	186	0.1	2.313	A
2 - Egremont Byp	518	78	2295	0.226	518	0.3	2.114	A
3 - Howbank Road	182	518	969	0.188	183	0.2	4.657	A
4 - A595 Clints Brow	467	144	1696	0.275	467	0.4	3.107	A

2032 - Base + Development, 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	4.70	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2032 - Base + Development	PM	ONE HOUR	16:45	18:15	15

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

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - A5086		✓	298	100.000
2 - Egremont Byp		✓	1225	100.000
3 - Howbank Road		✓	125	100.000
4 - A595 Clints Brow		✓	715	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	210	88	0
	2 - Egremont Byp	294	0	0	931
	3 - Howbank Road	42	0	0	83
	4 - A595 Clints Brow	0	550	165	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - A5086	2 - Egremont Byp	3 - Howbank Road	4 - A595 Clints Brow
	1 - A5086	0	1	0	0
	2 - Egremont Byp	2	0	0	2
	3 - Howbank Road	2	0	0	2
	4 - A595 Clints Brow	0	1	1	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - A5086	0.21	2.85	0.3	A
2 - Egremont Byp	0.63	4.60	1.7	A
3 - Howbank Road	0.27	9.79	0.4	A

4 - A595 Clints Brow	0.51	4.74	1.0	A

Main Results for each time segment

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	224	536	1778	0.126	224	0.1	2.333	A
2 - Egremont Byp	922	190	2212	0.417	919	0.7	2.835	A
3 - Howbank Road	94	919	749	0.126	94	0.1	5.598	A
4 - A595 Clints Brow	538	252	1628	0.331	536	0.5	3.325	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	268	642	1703	0.157	268	0.2	2.525	A
2 - Egremont Byp	1101	227	2184	0.504	1100	1.0	3.383	A
3 - Howbank Road	112	1100	650	0.173	112	0.2	6.830	A
4 - A595 Clints Brow	643	302	1597	0.402	642	0.7	3.805	A

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	328	786	1601	0.205	328	0.3	2.847	A
2 - Egremont Byp	1349	278	2147	0.628	1346	1.7	4.570	A
3 - Howbank Road	138	1346	514	0.268	137	0.4	9.719	A
4 - A595 Clints Brow	787	369	1555	0.506	786	1.0	4.717	A

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	328	787	1600	0.205	328	0.3	2.849	A
2 - Egremont Byp	1349	279	2147	0.628	1349	1.7	4.602	A
3 - Howbank Road	138	1349	513	0.268	138	0.4	9.787	A
4 - A595 Clints Brow	787	370	1555	0.506	787	1.0	4.737	A

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	268	644	1701	0.157	268	0.2	2.531	A
2 - Egremont Byp	1101	228	2184	0.504	1104	1.0	3.407	A
3 - Howbank Road	112	1104	647	0.174	113	0.2	6.881	A
4 - A595 Clints Brow	643	303	1596	0.403	644	0.7	3.822	A

18:00 - 18:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - A5086	224	539	1776	0.126	225	0.1	2.338	A
2 - Egremont Byp	922	191	2212	0.417	923	0.7	2.855	A
3 - Howbank Road	94	923	747	0.126	94	0.1	5.634	A
4 - A595 Clints Brow	538	253	1627	0.331	539	0.5	3.342	A

APPENDIX H – QUEUE OBSERVATIONS

Queue Observations
17/03/2020

Hensingham Mini Roundabout

Leconfield St/Site Access Mini Roundabout

Time	Moresby Road	Approach Arm		Ind Est/ Access	Site	Approach Arm		
		Cleator Moor Road (B5295)	Main Street (B5295)			B5295 East	Little Croft/ Co-op	B5295 West
08:00	0	8	0		-	-	-	-
08:02	0	4	0		-	-	-	-
08:04	0	0	0		0	0	0	2
08:06	0	6	0		0	0	0	0
08:08	0	3	1		0	0	0	0
08:10	0	0	0		0	0	0	0
08:12	0	0	0		0	0	0	0
08:14	0	0	5		0	0	0	0
08:00-08:15								
Average	0.00	1.50	1.00		0.00	0.00	0.00	0.33
08:16	1	0	0		0	0	0	0
08:18	0	0	7		0	0	0	2
08:20	5	3	0		0	0	0	0
08:22	3	5	7		0	1	0	1
08:24	0	12	9		0	0	0	0
08:26	-	-	-		0	0	0	0
08:28	3	7	6		0	0	0	0
08:30	2	14	14		0	0	1	0
08:15-08:30								
Average	2.00	5.86	6.14		0.00	0.13	0.13	0.38
08:32	2	9	5		0	0	0	0
08:34	3	4	4		0	0	0	0
08:36	3	9	1		0	0	0	0
08:38	0	0	0		0	0	1	0
08:40	2	9	0		0	0	0	3
08:42	0	0	2		0	0	0	0
08:44	5	1	0		0	0	0	1
08:30-08:45								
Average	2.14	4.57	1.71		0.00	0.00	0.14	0.57
08:46	0	1	0		0	0	0	0
08:48	10	0	0		0	0	1	0
08:50	0	2	1		0	0	0	0
08:52	1	0	0		0	0	0	0
08:54	0	0	0		0	0	0	0
08:56	0	0	0		0	0	0	1
08:58	3	0	2		0	0	0	0
09:00	0	0	0		0	0	0	0
08:45-09:00								
Average	1.75	0.38	0.38		0.00	0.00	0.13	0.13
17:00	0	3	0		1	0	0	1
17:02	1	3	1		0	0	5	1
17:04	4	3	3		0	7	0	3
17:06	2	1	2		1	1	0	2
17:08	0	0	1		0	0	0	0
17:10	0	0	0		1	3	0	0
17:12	0	2	0		-	-	-	-
17:14	0	0	0		0	0	0	0
17:00-17:15								
Average	0.88	1.50	0.88		0.43	0.00	0.00	0.00
17:16	0	7	2		0	0	0	0
17:18	0	0	0		0	1	0	0
17:20	0	0	1		0	0	1	1
17:22	0	1	0		0	0	0	0
17:24	0	0	0		0	0	0	0
17:26	0	0	0		1	0	0	0
17:28	0	0	0		0	0	0	0
17:30	0	0	0		0	0	0	0
17:15-17:30								
Average	0.00	1.00	0.38		0.13	0.13	0.13	0.13
17:32	0	0	0		0	0	0	0
17:34	0	0	0		0	0	0	0
17:36	0	0	0		0	0	2	0
17:38	0	0	0		0	0	2	0
17:40	0	0	0		0	1	0	0
17:42	0	0	0		0	0	0	1
17:44	0	0	0		0	0	0	0

17:30-17:45

Average	0.00	0.13	0.05		0.02	0.14	0.52	0.14
17:46	0	0	0		0	0	2	0
17:48	0	0	0		0	0	2	0
17:50	0	0	0		0	0	0	0
17:52	0	0	0		0	0	0	0
17:54	0	0	0		0	0	0	0
17:56	0	0	0		0	0	2	0
17:58	0	0	0		0	0	0	0
18:00	0	0	0		0	0	1	0

17:45-18:00

Average	0.00	0.00	0.00		0.00	0.00	0.88	0.00

APPENDIX I – EXTRACTS FROM WSP COPELAND TRANSPORT STUDY



Development of the Schemes

Introduction to the Development of the Options

This document presents the work undertaken for Stage 3 of the Copeland Transport Improvements Study (TIS). It describes the assessment and development work undertaken for each of the interventions that were prioritised for further study work in Stage

2. Interventions are grouped based on transport modes or similarity as follows:

1. Active travel
2. Public transport
3. Highways
4. Travel demand management

Document Structure

Each of the intervention categories above have information presented in the following structure 1) to 4):

1) Summary Page – A summary dashboard is provided for each outlining:

- Intervention Description
- Intervention Development
- Top Risks to Delivery
- Intervention Costs

2) Additional Information Sheet

After the summary page, Additional Information Sheets provide information on each of the interventions. They follow the same structure, as follows:

a) What the intervention would deliver

- Outlines the outcomes that each intervention could achieve.

b) Intervention Design Considerations

- Outlines key issues for each improvement intervention, presenting any relevant evidence or likely impacts

c) Recommendation

- Recommendations are made as to whether or not the intervention should not be progressed to mitigate the impact of the Local Plan.

d) Delivery

- The delivery section of each intervention comprises an outline of how the intervention can be developed beyond the Copeland TIS, including delivery lead and key issues to overcome.



Development of the Schemes

3) Delivery and Indicative Programme

A summary table is presented outlining the scheme ID, recommendation, delivery lead, delivery partners, interdependencies with other interventions, potential funding sources and indicative delivery programme

A Gantt chart is provided showing the main key tasks to deliver each intervention against the timeline for delivery.

Note on Cost Development

- A cost spreadsheet has been developed as part of Stage 3
- Summary information is presented in the Summary Page of each package for each recommended intervention.
- Where interventions are primarily changes to policy, an estimate of cost is provided to undertake the administration of the policy change, and any additional annual costs associated with the policy.
- Where fixed infrastructure is required to deliver an intervention (e.g. parking meters/wayfinding signage), an estimate of cost is provided based on previous cost estimates.
- Where a new design is proposed (e.g. new car park layout/shared footway/cycleway), cost estimates have been estimated from approximate quantities and rates from Spon's *Civil Engineering and Highways Price Book* or recently tendered schemes where relevant. These rates have been adjusted to be relevant to the current year. Where previous rates are not available or suitable, cost allowances have been made and agreed with the Lead Delivery Organisation. The total scheme costs include construction, contingency, optimism bias, design/delivery and inflation from the present day to the tender year in the Delivery Programme.
- A range of fee estimates are provided given the uncertainty of the interventions at this stage.
- Costs presented in the proformas are rounded to an appropriate level for ease of presentation.
- A cost workshop was undertaken in May 2021 and a subsequent meeting with CCC officers on 10th June to agree this approach.

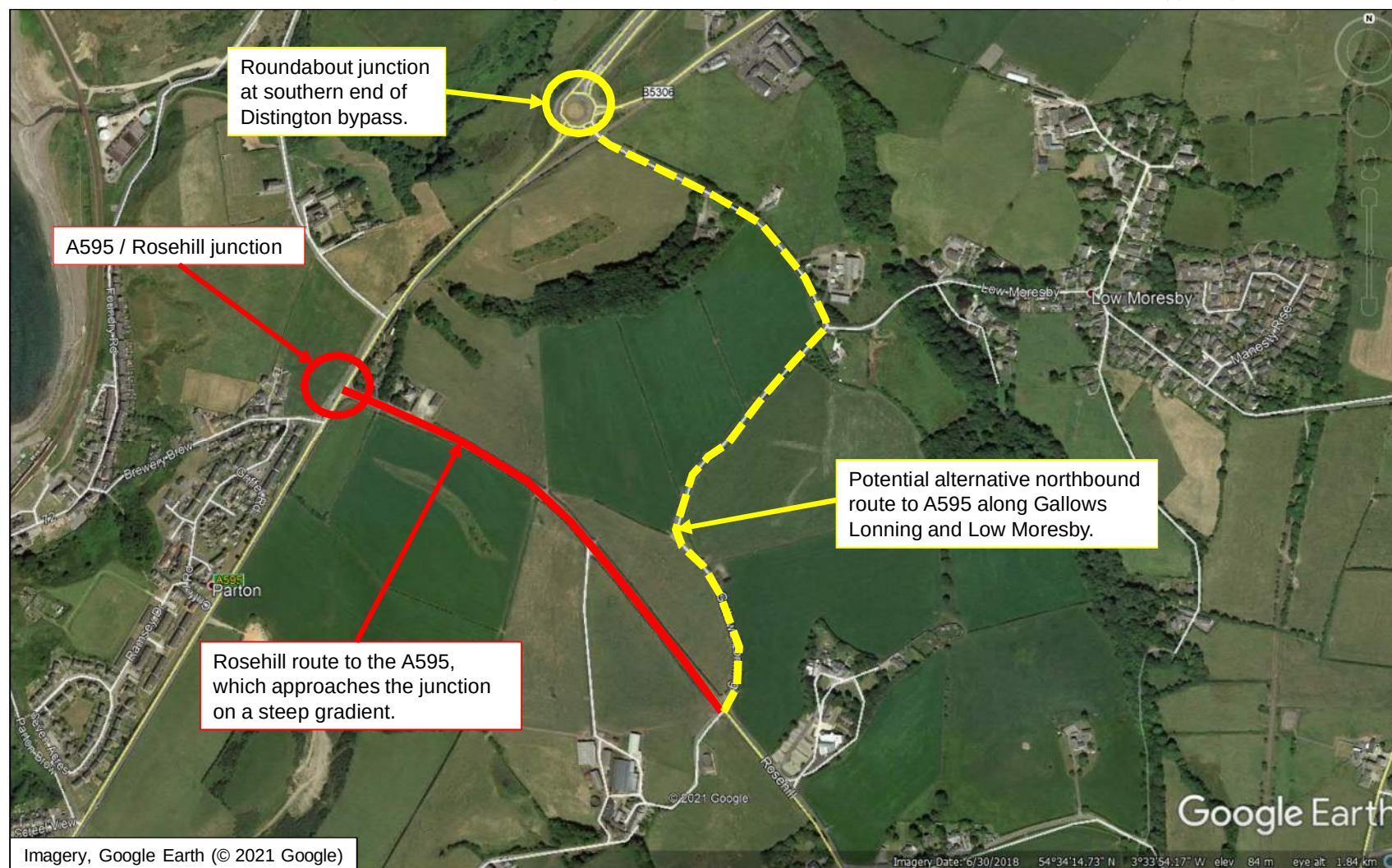
The details of the interventions are now presented for the remainder of this document.



Additional Information Sheet

ID43 A595 / Rosehill

- Due to high traffic volumes on the A595, it is very difficult for drivers to turn right from Rosehill onto the A595 and there is also a safety issue related to the steep gradient on Rosehill at the junction.
- Highways England have implemented a package of signing improvements along the A595 at this junction approximately 5 years ago.
- There is limited potential for further improvements at the A595 / Rosehill junction.
- An alternative route exists along Gallows Lonning and Low Moresby which could potentially be signed as the preferred route north from Hensingham to the A595. This would avoid the right-turn from Rosehill onto the A595 and instead join the A595 at the roundabout at the southern end of the Distington bypass. However provision of a footway on Low Moresby would be required to ensure a safe pedestrian route. An enhanced widening scheme could formalise this routing arrangement even further.
- The route southbound on the A595 towards Rosehill would remain the preferred route as the left turn onto Rosehill does not conflict with opposing traffic.





Additional Information Sheet

ID33 Homewood Road roundabout

Existing layout

The Homewood Road roundabout is a critical junction along the A595 within Whitehaven and is on the primary route to West Cumberland Hospital, located along Homewood Road. It is a four-arm roundabout and the configuration is shown in the figure below.



The roundabout is forecast to be over-capacity in the PM peak with the modelled Local Plan growth, as demonstrated in the results presented in the table below.

Arm	2019 Base				2035 Base				2035 Local Plan				2035 High Growth			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
A595 North	0.82	4.3	0.71	2.4	0.93	10.4	0.82	4.3	0.99	20.6	0.94	11	1.05	37	0.92	9.4
B5295	0.31	0.5	0.24	0.3	0.42	0.7	0.28	0.4	0.58	1.4	0.34	0.5	0.69	2.1	0.41	0.7
Homewood Road	0.45	0.8	0.7	2.3	0.57	1.3	0.98	14.7	0.95	10.2	1.04	24	0.89	6.4	1.07	31.1
A595 South	0.8	3.9	0.9	7.7	0.87	6.3	0.99	20.7	0.67	2	1.14	101.3	0.92	9.6	1.11	80.5
Maximum RFC	0.82		0.9		0.93		0.99		0.99		1.14		1.05		1.11	



Additional Information Sheet

ID33 Homewood Road roundabout

Proposed improvement – Option 1

In the A595 Inkerman Terrace to Egremont Study undertaken by Atkins on behalf of Highways England, provision of a right turn lane on the southern arm of the A595 has been proposed to increase the capacity of this arm of the roundabout. The draft layout of the proposed improvement is presented in the figure overleaf. **Note the design is draft and subject to comment by Highways England.**

Due to the small scale nature of the scheme, it constitutes a low cost option for the junction. This option was tested in the junction model and the results are presented in the table below. The results demonstrate that the addition of a right-turn lane on the southern arm of the A595 results in a significant reduction of the RFC for this arm, but does not address the capacity issues modelled on the A595 northern arm and Homewood Road arm.

Arm	2035 Base				2035 Local Plan				2035 High Growth			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
A595 North	0.93	10.5	0.82	4.4	0.99	20.7	0.97	15.1	1.05	38.1	0.95	12.4
B5295	0.42	0.7	0.28	0.4	0.58	1.4	0.35	0.5	0.69	2.1	0.41	0.7
Homewood Road	0.57	1.3	0.98	14.7	0.95	10.2	1.03	23	0.89	6.4	1.07	30.3
A595 South	0.48	0.9	0.54	1.2	0.37	0.6	0.63	1.7	0.51	1	0.61	1.5
Maximum RFC	0.93		0.98		0.99		1.03		1.05		1.07	

Proposed improvement – Option 2

A larger scale and high cost improvement option for the Homewood Road roundabout is to provide a bypass lane on the western side of the junction so that northbound traffic on the A595 can flow freely without the need to give way to vehicles on the roundabout. The design would require land outside the highway boundary and significant earthworks due to the steep gradient immediately to the west of the junction. The concept design is shown in Option 2 overleaf and the results of the junction modelling for this option are presented in the table below.

Arm	2035 Base				2035 Local Plan				2035 High Growth			
	AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak	
	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue	RFC	Queue
A595 North	0.93	10.5	0.82	4.4	0.99	20.6	0.97	15.1	1.05	38.1	0.95	12.4
B5295	0.42	0.7	0.28	0.4	0.58	1.4	0.35	0.5	0.69	2.1	0.41	0.7
Homewood Road	0.57	1.3	0.98	14.7	0.95	10.2	1.03	23	0.89	6.4	1.07	30.3
A595 South	0.39	0.6	0.33	0.5	0.43	0.8	0.41	0.7	0.45	0.8	0.46	0.8
Maximum RFC	0.93		0.98		0.99		1.03		1.05		1.07	

The results show that this option would only address the capacity issues on the A595 South arm and therefore the junction is forecast to remain over-capacity.

Recommendation

Option 1 is the preferred improvement at the Homewood Road roundabout junction because it is smaller scale whilst delivering similar benefits as Option 2. However further mitigation in the form of Travel Demand Management and Travel Planning will improve the estimated impacts of the Local Plan traffic generation. Interrogation of the trip routing suggests that interventions focussed at West Lakes Science Park will provide the most benefit for improving the operation of this junction.

POSSIBLY INCREASE CIRCULATORY CARRIAGEWAY WIDTH TO 9.0M (1.2 X MAX. ENTRY WIDTH)

POSSIBLE INTRODUCTION OF CIRCULATORY CARRIAGEWAY ROAD MARKINGS TO REINFORCE LANE DISCIPLINE WITH 2 LANE APPROACH

EXISTING ENTRY RADII'S TO BE POSSIBLY MODIFIED TO SUIT NEW ALIGNMENT AND EXISTING FOOTWAY, GUARDRAILINGS AND TACTILE PAVING TO BE ADJUSTED

POSSIBLE CARRIAGEWAY WIDENING TO CREATE SPACE FOR ADDITIONAL LANE

POSSIBLE 2 LANE APPROACH NORTH BOUND FOR APPROX. 70M

POSSIBLE MINOR REALIGNMENT TO MEADOW ROAD JUNCTION

EXISTING CENTRAL HITCHING TO DWG. 1040 TO BE POSSIBLY NARROWED TO CREATE SPACE FOR ADDITIONAL LANE

EXISTING RIGHT TURN JUNCTION ARRANGEMENT TO REMAIN UNCHANGED

DO NOT SCALE

Notes:

1. Layout shown is concept only and subject to agreements and further design.
2. Design is based on Ordnance Survey data only.

Key:

- Proposed new kerb
- Proposed new lane markings
- Proposed new give way markings
- Proposed new tactile paving
- Existing highway boundary
- Proposed new footway

FOR INFORMATION				S2	
ATKINS The Exchange 2 New York Street Birmingham B1 1AA Tel: +44 (0)121 7361460 Fax: +44 (0)121 7361460 www.atkinsglobal.com Copyright © Atkins Limited (2020)					
highways england					
A595 MIREHOUSE WEST LAKES & EGREMONT STUDY					
EGREMONT ROAD ROUNDABOUT GENERAL ARRANGEMENT					
Date	1/2/20	Project	A595	Client	Highways England
Drawn by	AT	Check by	AT	Project	AT
Scale	1:1000	Sheet	10 of 10	Revision	1.0
3188540 A595 - DR - D - 0001					



Additional Information Sheet

ID33 Homewood Road roundabout

Option 2 (roundabout bypass for northbound traffic) – Layout of potential improvement



APPENDIX J – CCC HIGHWAY SAFETY RECORDS

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No:	186497	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SERIOUS	Road Surface:	DRY
Date:	Tuesday 23-May-17 at 1444	Lighting:	DAYLIGHT
No. Casualties:	3 No. 2	Special Conds:	NONE
Easting:	301777 Northing: 515178	Carriageway Hazds	

Road:	B5295	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	17 HIGH STREET B5295				
Description:	Vehicle 1 has been travelling along High Street in direction of the centre and Vehicle 2 has been driving in the opposite direction in the opposing carriageway. Driver of vehicle 1 appears to have suffered from a medical episode causing him to veer into the opposing carriageway and into the path of vehicle 2. Front offside of vehicle 1 then collided with the front offside of vehicle 2.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	ILLNESS OR DISABILITY, MENTAL OR PHYSICAL UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	70	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NOT PROVIDED (MEDICAL REASONS)	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	W E	Vehicle Make:	TOYOTA
	W E		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SERIOUS	Pedestrian Movement:	NOT PEDESTRIAN
Age:	70	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	3	Pedestrian Location	ON REFUGE, CENTRAL ISLAND OR CENTRAL RESERVATION
Severity:	SLIGHT	Pedestrian Movement:	UNKNOWN OR OTHER
Age:	49	Pedestrian Direction:	STANDING STILL
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	PEDESTRIAN	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	27	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	E W	Vehicle Make:	RENAULT
	E W		

Casualties

Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	27	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Conditions

Accident No:	198221	Weather:	OTHER
Severity:	SLIGHT	Road Surface:	WET / DAMP
Date:	Tuesday 4-Jul-17 at 2113	Lighting:	DAYLIGHT
No. Casualties:	1 No. 3	Special Conds:	NONE
Easting:	300843	Carriageway Hazds	
Northing:	515829		

Road:	B5295	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	CROSBY WHITEHAVEN ROAD B5295				
Description:	V002 has been parked outside home address facing towards Cleator Moor Town Centre. V001 has been travelling towards Whitehaven from Cleator Moor. V001 has collided with parked V002 which has caused V002 to mount the curb and hit front wall outside the address causing damage and collide with parked V003 which was on the drive of address - both V002 and V003 were unattended.				

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	POOR TURN OR MANOEUVRE	Confidence:	UNKNOWN
Factor 2:	CARELESS/RECKLESS/IN A HURRY	Confidence:	UNKNOWN
Factor 3:	POOR TURN OR MANOEUVRE	Confidence:	VERY LIKELY

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	OVERTURNED
Driver Sex:	MALE	Object in Cway:	PARKED VEHICLE - UNLIT
Driver Age:	21	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA15	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	S NE	Vehicle Make:	VOLKSWAGEN
	S NE		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	21	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	PARKED
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	34	Veh. Leaving Cway:	LEFT CARRIAGEWAY OFFSIDE
Driver Postcode:	CA25	Object off Cway:	WALL OR FENCE
Breath Test:	NOT REQUESTED	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	0 0	Vehicle Make:	AUDI
	0 0		

Casualties

Vehicle Number :	3	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	PARKED
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	34	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	DID NOT IMPACT
		Hit and Run:	OTHER
Direction:	0 0	Vehicle Make:	FORD
	0 0		

Casualties

Accident No:	202645	Weather:	Conditions FINE (WITHOUT HIGH WINDS)

Severity:	SLIGHT			Road Surface:	DRY		
Date:	Thursday	8-Jun-17	at 0700	Lighting:	DAYLIGHT		
No. Casualties:	1	No.	2	Special Conds:	NONE		
Easting:	301931	Northing:	515095	Carriageway Hazds			
Road:	B5295	Speed Limit:	40	Road	SINGLE CARRIAGEWAY		
Location:	JACKTREES ROAD CLEATOR MOOR AT JN WITH MAIN STREET A5086						
Description:	Cyclist was on pedal cycle waiting at the junction to turn right. A vehicle has been travelling on Main St and turning right into the junction where the cyclist was waiting. Vehicle has then collided with cyclist. Both parties have exchanged details at the time. Cyclist has attended A&E and has minor bruises and swelling.						

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	POOR TURN OR MANOEUVRE
Confidence:	VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO TURN RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	59	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	LAND ROVER
	N S		

Casualties

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	PEDAL CYCLE	Veh. Manoeuvres:	CHANGING LANE TO LEFT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	29	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NOT APPLICIABLE	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	?
	N S		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	29	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	221377	Conditions			
Severity:	SERIOUS	Weather:	FINE (WITHOUT HIGH WINDS)		
Date:	Monday	4-Sep-17	at 1150	Road Surface:	DRY
No. Casualties:	1	No.	2	Lighting:	DAYLIGHT
Easting:	301383	Northing:	515439	Special Conds:	NONE
		Carriageway Hazds			
Road:	B5295	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	LECONFIELD STREET B5295 NEAR JN WITH LECONFIELD INDUSTIRAL ESTATE				
Description:	V1 travelling towards Whitehaven from Cleator Moor has approached junction at Leconfield and garage. V1 has had left indicator on but not turned and continued straight on. V2 has been waiting to pull off forecourt and upon seeing V1 indicating to turn left prior to V2s location V2 has motioned forward but not into carriageway. As V1 has seen that V1 has continued V2 has slipped. V1 has braked, slid and potentially high sided throwing rider C1 onto carriageway and causing injury. V1 and C1 have not hit any other vehicle.				

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	SLIPPERY ROAD (DUE TO WEATHER)	Confidence:	UNKNOWN
Factor 2:	FAILED TO SIGNAL/MISLEADING SIGNAL	Confidence:	UNKNOWN
Factor 3:	SLIPPERY ROAD (DUE TO WEATHER)	Confidence:	VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION

Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	MOTORCYCLE OVER 50CC AND UP TO 125CC	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE CLEARED JUNC OR PARKED AT JUNC EXIT
Reg. Number:	0	Skidding & Overturn:	SKIDDED AND OVERTURNED
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	67	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	DID NOT IMPACT
Direction:	S N S N	Hit and Run:	OTHER
		Vehicle Make:	YAMAHA

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SERIOUS	Pedestrian Movement:	NOT PEDESTRIAN
Age:	67	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO TURN LEFT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	32	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	DID NOT IMPACT
Direction:	E W E W	Hit and Run:	OTHER
		Vehicle Make:	RENAULT(FRANCE)

Casualties

Accident No:	276106	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Tuesday 13-Feb-18 at 2021	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	301930 Northing: 515095	Carriageway Hazds	
Road:	B5295	Speed Limit:	30
Location:	HIGH STREET B5245 AT JN WITH JACKTREES ROAD	Road	SINGLE CARRIAGEWAY
Description:	VEH 2 EASTBOUND, SLOWS TO TURN RIGHT, VEH 1 FAILS TO SLOW IN TIME AND COLLIDES WITH REAR OF VEH 2		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN UNKNOWN
Factor 2:	UNKNOWN UNKNOWN
Factor 3:	UNKNOWN UNKNOWN
Factor 4:	UNKNOWN UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	SLIPPERY ROAD (DUE TO WEATHER) VERY LIKELY
Factor 2:	SUDDEN BRAKING VERY LIKELY
Factor 3:	SLIPPERY ROAD (DUE TO WEATHER) VERY LIKELY
Factor 4:	SUDDEN BRAKING VERY LIKELY
Factor 5:	SLIPPERY ROAD (DUE TO WEATHER) VERY LIKELY
Factor 6:	SUDDEN BRAKING VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	21	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
Direction:	W E	Hit and Run:	OTHER

W E		Vehicle Make:	SEAT
Casualties			
Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	TURNING RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	47	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	W S	Vehicle Make:	FORD(EUROPE)
	W S		

Casualties			
Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No: 279357		Conditions	
Severity:	SERIOUS	Weather:	UNKNOWN
Date:	Friday 23-Feb-18 at 1540	Road Surface:	DRY
No. Casualties:	1 No. 2	Lighting:	DAYLIGHT
Easting:	301537 Northing: 515332	Special Conds:	NONE
		Carriageway Hazds	
Road:	B5295	Speed Limit:	30
		Road	SINGLE CARRIAGEWAY
Location:	LECONFIELD STREET		
Description:	V001 has ran into the back of V002 causing rider of V001 to fall off.		

Causation Factors: Pre 2005		Confidence:
Factor 1:	UNKNOWN	UNKNOWN
Factor 2:	UNKNOWN	UNKNOWN
Factor 3:	UNKNOWN	UNKNOWN
Factor 4:	UNKNOWN	UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	FOLLOWING TOO CLOSE
Confidence:	UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	MOTORCYCLE OVER 500CC	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	27	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	KAWASAKI
	N S		

Casualties			
Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SERIOUS	Pedestrian Movement:	NOT PEDESTRIAN
Age:	27	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	VAN/GOODS VEHICLE 3.5 TONNES MAXIMUM GROSS WEIGHT (MGW) AND UNDER	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	38	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	DID NOT IMPACT
		Hit and Run:	OTHER

Direction:

N S

N S

Vehicle Make:

FORD

Casualties

Accident No:

318863

Weather:

FINE (WITHOUT HIGH WINDS)

Severity:

SERIOUS

Road Surface:

DRY

Date:

Saturday

11-Aug-18

at

1420

Lighting:

DAYLIGHT

No. Casualties:

1

No.

2

Special Conds:

NONE

Easting:

301178

Northing:

515605

Carriageway Hazds

Road:

B5294

Speed Limit:

30

Road

SINGLE CARRIAGEWAY

Location:

B5294 BOWTHORN

Description:

Vehicle 1, a white mini one has been in the centre of the road whilst overtaking a stationary vehicle, at which point Vehicle 2 - a pedal cyclist has ridden from a lane onto the main road. The two have collided in the centre of the road where the cyclist's head has made contact with the windscreen.

Causation Factors: Pre 2005

Confidence:

Factor 1:

UNKNOWN

UNKNOWN

Factor 2:

UNKNOWN

UNKNOWN

Factor 3:

UNKNOWN

UNKNOWN

Factor 4:

UNKNOWN

UNKNOWN

Contributory Factors: Post 2005

Factor 1:

CYCLIST ENTERING ROAD FROM PAVEMENT

Confidence:

VERY LIKELY

Factor 2:

FAILED TO LOOK PROPERLY

Confidence:

VERY LIKELY

Factor 3:

IMPAIRED BY DRUGS (ILLICIT OR MEDICINAL)

Confidence:

POSSIBLE

Factor 4:

TYRES ILLEGAL, DEFECTIVE OR UNDER INFLATED

Confidence:

POSSIBLE

Factor 5:

DISTRACTION IN VEHICLE

Confidence:

POSSIBLE

Junction Details:

NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control:

NOT APPLICABLE

Ped Xing Human Contro

NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs:

NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :

1

Journey Purpose:

OTHER

Vehicle Type:

CAR

Veh. Manoeuvres:

OVERTAKING STATIONARY VEHICLE ON ITS OFFSIDE

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

FEMALE

Object in Cway:

NONE

Driver Age:

22

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

CA25

Object off Cway:

NONE

Breath Test:

NEGATIVE

First Point of Impact:

FRONT

Hit and Run:

OTHER

Direction:

N S

Vehicle Make:

MINI

N S

Casualties

Vehicle Number :

2

Journey Purpose:

OTHER

Vehicle Type:

PEDAL CYCLE

Veh. Manoeuvres:

TURNING RIGHT

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

MALE

Object in Cway:

NONE

Driver Age:

33

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

CA25

Object off Cway:

NONE

Breath Test:

NOT APPLICIABLE

First Point of Impact:

FRONT

Hit and Run:

OTHER

Direction:

S N

Vehicle Make:

?

S N

Casualties

Casualty :

1

Pedestrian Location

NOT PEDESTRIAN

Severity:

SERIOUS

Pedestrian Movement:

NOT PEDESTRIAN

Age:

33

Pedestrian Direction:

NOT PEDESTRIAN

Sex:

MALE

Pedestrian Roadworker

NO

Casualty Class:

DRIVER

Car Passenger:

NOT A CAR PASSENGER

Pupil:

NOT A SCHOOL PUPIL

PSV Passenger:

NOT A BUS OR COACH PASSENGER

Accident No:

340553

Weather:

UNKNOWN

Severity:

SLIGHT

Road Surface:

DRY

Date:

Sunday

23-Sep-18

at

2045

Lighting:

DAYLIGHT

No. Casualties:

1

No.

2

Special Conds:

NONE

Easting:

301887

Northing:

515118

Carriageway Hazds

Road:

B5295

Speed Limit:

30

Road

SINGLE CARRIAGEWAY

Location:

HIGH STREET

Description:

V001 and V002 collided with each other outside Chatanooga - driver of V002 injured.

Causation Factors: Pre 2005

Confidence:

Factor 1:

UNKNOWN

UNKNOWN

Factor 2:

UNKNOWN

UNKNOWN

Factor 3:

UNKNOWN

UNKNOWN

Factor 4:

UNKNOWN

UNKNOWN

Contributory Factors: Post 2005

Factor 1:	FAILED TO LOOK PROPERLY	Confidence:	UNKNOWN
Factor 2:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED	Confidence:	UNKNOWN
Factor 3:	FAILED TO LOOK PROPERLY	Confidence:	UNKNOWN
Factor 4:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED	Confidence:	UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	37	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	FRONT
Direction:	N S	Hit and Run:	OTHER
	N S	Vehicle Make:	AUDI

Casualties

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	26	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	FRONT
Direction:	S N	Hit and Run:	OTHER
	S N	Vehicle Make:	VAUXHALL

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	26	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	846453	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Wednesday 5-Jun-19 at 1209	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	301684 Northing: 515232	Carriageway Hazds	
Road:	B5295	Speed Limit:	30
Location:	Road SINGLE CARRIAGEWAY		
Description:	LECONFIELD STREET (B5295) - 99 METRES FROM JUNCTION WITH LECONFIELD STREET		
	V1 HAS COLLIDED INTO V2 WHILST DRIVING ALONG THE ROAD AS DRIVER OF V1 HAS SNEEZED AND DIFTED OVER ONTO THE OTHER SIDE OF THE ROAD		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	LOSS OF CONTROL
	POSSIBLE

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	35	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
		First Point of Impact:	FRONT

Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	SE NW SE NW	Vehicle Make:	VOLKSWAGEN

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	63	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
Direction:	NW SE NW SE	Hit and Run:	OTHER
		Vehicle Make:	NISSAN

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	63	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	848362	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Monday 10-Jun-19 at 2330	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	2 No. 2	Special Conds:	NONE
Easting:	301923 Northing: 515099	Carriageway Hazds	
Road:	B5295	Speed Limit:	30
Location:	Road SINGLE CARRIAGEWAY		
Description:	HIGH STREET (B5295) NEAR JUNCTION WITH JACKTREES ROAD		
	V1 PULLED AWAY FROM KERB INTENDING TO TURN RIGHT INTO JACK TREES ROAD, V2 WAS TRAVELLING EAST AND ON GOING PASSED V1, CLIPPED THE REAR OF V1 CAUSING V2 TO SWERVE AND COLLIDE INTO SHOP.		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN UNKNOWN
Factor 2:	UNKNOWN UNKNOWN
Factor 3:	UNKNOWN UNKNOWN
Factor 4:	UNKNOWN UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED Confidence: POSSIBLE
Factor 2:	TRAVELLING TOO FAST FOR CONDITIONS Confidence: POSSIBLE

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	TURNING RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	23	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	BACK
Direction:	NW S NW S	Hit and Run:	OTHER
		Vehicle Make:	HYUNDAI

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	23	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	MINIBUS (8 - 16 PASSENGER SEATS)	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	SKIDDED
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	31	Veh. Leaving Cway:	LEFT CARRIAGEWAY NEARSIDE
Driver Postcode:	CA26	Object off Cway:	OTHER PERMANENT OBJECT
		First Point of Impact:	FRONT

Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	SE NW	Vehicle Make:	
	SE NW		FORD

Casualties

Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	31	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	884046	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Thursday 15-Aug-19 at 1217	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	301827	Carriageway Hazds	

Road:	U4218	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	MONTREAL STREET NEAR JUNCTION WITH HIGH STREET (B5295)				
Description:	V1 has been edging out of minor access road opposite Montreal Street onto High Street with view partially obstructed by parked cars. V2 has been travelling along High Street from Whitehaven to Cleator Moor and as V1 has edged out it has collided with V2 front offside to front nearside respectively.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	STATIONARY OR PARKED VEHICLE(S)	Confidence:	POSSIBLE

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	STARTING
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	95	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA26	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	HONDA
	N S		

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	47	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	W E	Vehicle Make:	SEAT
	W E		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 4	SLIGHT: 7	DAMAGE ONLY: 0	TOTAL: 11

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No:	193361	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Thursday 15-Jun-17 at 2125	Lighting:	DAYLIGHT
No. Casualties:	2	Special Conds:	NONE
Easting:	299079	Carriageway Hazds	
No.	2		
Northing:	517239		

Road:	B5295	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	MAIN STREET AT JN WITH EGREMONT ROAD				
Description:	Vehicle 001 has been driving down the main street, Hensingham - towards the mini roundabout. Vehicle 001 has failed to stop at the mini roundabout and has collided with the rear nearside of V002 at slow speed. Vehicle 002 has been travelling along the mini roundabout towards Egremont road.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	JUNCTION OVERSHOOT	Confidence:	UNKNOWN
Factor 2:	LOSS OF CONTROL	Confidence:	UNKNOWN
Factor 3:	JUNCTION OVERSHOOT	Confidence:	VERY LIKELY

Junction Details:	MINI-ROUNDAABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	STOPPING
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	41	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA29	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
Direction:	NE SW NE SW	Hit and Run:	OTHER
Vehicle Make:	SEAT		

Casualties

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE CLEARED JUNC OR PARKED AT JUNC EXIT
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	49	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	NEARSIDE
Direction:	W E W E	Hit and Run:	OTHER
Vehicle Make:	TOYOTA		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	233488	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY

Date:	Sunday	24-Sep-17	at	1120	Lighting:	DAYLIGHT
No. Casualties:	1	No.	2	Special Conds:	NONE	
Easting:	299079	Northing:	517239	Carriageway Hazds		
Road:	B5295	Speed Limit:	30	Road	SINGLE CARRIAGEWAY	
Location:	CLEATOR MOOR ROAD					
Description:	Ambulance travelling using blue lights and sirens from of traffic slowed down. Vehicle 1 rear and shunted vehicle 2.					

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	FAILED TO LOOK PROPERLY
Confidence:	VERY LIKELY

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	0	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	VOLKSWAGEN
	N S		

Casualties

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	50	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	S N	Vehicle Make:	VAUXHALL
	S N		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	50	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	347139	Conditions				
Severity:	SLIGHT	Weather:	FINE (WITHOUT HIGH WINDS)			
Date:	Sunday	25-Nov-18	at	0930	Road Surface:	DRY
No. Casualties:	1	No.	2	Lighting:	DAYLIGHT	
Easting:	299078	Northing:	517245	Special Conds:	NONE	
		Carriageway Hazds				

Road:	C4006	Speed Limit:	30	Road	ROUNDAABOUT
Location:	MORESBY PARK ROAD AT JN WITH RED LONNING				
Description:	CYCLIST WAS ON ROUNDAABOUT WHEN V1 HAS PULLED OUT ONTO THE ROUNDAABOUT AND COLLIDED WITH THE REAR WHEEL OF THE BICYCLES KNOCKING RIDER TO THE FLOOR CAUSING SOME DAMAGE TO BICYCLE AND MINOR GRAIZES AND BRUSING TO RIDER.				

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	FAILED TO LOOK PROPERLY
Factor 2:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED
Confidence:	UNKNOWN
Confidence:	UNKNOWN

Junction Details:	ROUNDAABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	STARTING
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	DID NOT IMPACT
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	0	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	S W		
	S W	Vehicle Make:	NISSAN

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	PEDAL CYCLE	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	31	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT APPLICIABLE	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	E W		
	E W	Vehicle Make:	PIONEER

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	31	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 3	DAMAGE ONLY: 0	TOTAL: 3

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No: 177987

Severity: SLIGHT

Date: Tuesday 25-Apr-17 at 1458

No. Casualties: 2 No. 2

Easting: 301107 Northing: 524247

Weather: FINE (WITHOUT HIGH WINDS)

Road Surface: DRY

Lighting: DAYLIGHT

Special Conds: NONE

Carriageway Hazds

Conditions

Carriageway Hazds

Road: A595T Speed Limit: 70 Road DUAL CARRIAGEWAY

Location: DISTINGTON BYPASS A595

Description: VEH 1 TRAVELLING IN THE OUTER LANE SWERVES TO AVOID BUCKET THAT BLOWS INTO CARRIAGEWAY AND COLLIDES WITH VEH 2

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: UNKNOWN

Confidence: UNKNOWN

Junction Details: NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control: NOT APPLICABLE

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: FEMALE

Driver Age: 20

Driver Postcode: CA28

Breath Test: NEGATIVE

Direction: N S

Journey Purpose: COMMUTING TO/FROM WORK

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY

Object off Cway: NONE

First Point of Impact: FRONT

Hit and Run: OTHER

Vehicle Make: FORD(EUROPE)

Casualties

Casualty : 1

Severity: SLIGHT

Age: 20

Sex: FEMALE

Casualty Class: DRIVER

Pupil: NOT A SCHOOL PUPIL

Pedestrian Location NOT PEDESTRIAN

Pedestrian Movement: NOT PEDESTRIAN

Pedestrian Direction: NOT PEDESTRIAN

Pedestrian Roadworker NO

Car Passenger: NOT A CAR PASSENGER

PSV Passenger: NOT A BUS OR COACH PASSENGER

Vehicle Number : 2

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: FEMALE

Driver Age: 41

Driver Postcode: CA25

Breath Test: NEGATIVE

Direction: N S

Journey Purpose: JOURNEY AS PART OF WORK

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY

Object off Cway: NONE

First Point of Impact: BACK

Hit and Run: OTHER

Vehicle Make: FORD(EUROPE)

Casualties

Casualty : 2

Severity: SLIGHT

Age: 41

Sex: FEMALE

Casualty Class: DRIVER

Pupil: NOT A SCHOOL PUPIL

Pedestrian Location NOT PEDESTRIAN

Pedestrian Movement: NOT PEDESTRIAN

Pedestrian Direction: NOT PEDESTRIAN

Pedestrian Roadworker NO

Car Passenger: NOT A CAR PASSENGER

PSV Passenger: NOT A BUS OR COACH PASSENGER

Accident No: 276250

Severity: SLIGHT

Date: Thursday 1-Feb-18 at 1500

No. Casualties: 1 No. 2

Easting: 301107 Northing: 524247

Weather: FINE (WITHOUT HIGH WINDS)

Road Surface: DRY

Lighting: DAYLIGHT

Special Conds: NONE

Carriageway Hazds

Conditions

Carriageway Hazds

Road:	A595T	Speed Limit:	50	Road	SINGLE CARRIAGEWAY
Location:	DISTINGTON ROUNABOUT A595 AT JN WITH A597				
Description:	VEH 1 COLLIDED WITH VEH 2 ON ROUNABOUT				

Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	UNKNOWN
Confidence:	UNKNOWN

Junction Details:	ROUNABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	61	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	FAILED TO PROVIDE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	NE W		
	NE W	Vehicle Make:	KIA

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	17	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	OFFSIDE
		Hit and Run:	OTHER
Direction:	E SW		
	E SW	Vehicle Make:	FORD(EUROPE)

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	17	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 2	DAMAGE ONLY: 0	TOTAL: 2

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No: 208859

Severity: SLIGHT

Date: Friday 4-Aug-17 at 2311

No. Casualties: 1 No. 1

Easting: 298736 Northing: 521152

Weather: FINE (WITHOUT HIGH WINDS)

Road Surface: DRY

Lighting: DARKNESS: STREET LIGHTS PRESENT AND LIT

Special Conds: NONE

Carriageway Hazds

Road: A595T Speed Limit: 70 Road DUAL CARRIAGEWAY

Location: DISTINGTON BYPASS A595

Description: V001 was travelling along on a two lane dual carriageway in a straight lane - driver stated that an animal ran out in front of his vehicle and he swerved to avoid it and crashed into the central reservation.

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: ANIMAL OR OBJECT IN CARRIAGEWAY

Factor 2: LOSS OF CONTROL

Confidence: UNKNOWN

Confidence: VERY LIKELY

Junction Details: NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control: NOT APPLICABLE

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: MALE

Driver Age: 23

Driver Postcode: CA14

Breath Test: NEGATIVE

Direction: SW NE

SW NE

Journey Purpose: COMMUTING TO/FROM WORK

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: LEFT CARRIAGEWAY NEARSIDE

Object off Cway: CENTRAL CRASH BARRIER

First Point of Impact: FRONT

Hit and Run: OTHER

Vehicle Make: MINI

Casualties

Casualty : 1

Severity: SLIGHT

Age: 23

Sex: MALE

Casualty Class: DRIVER

Pupil: NOT A SCHOOL PUPIL

Pedestrian Location: NOT PEDESTRIAN

Pedestrian Movement: NOT PEDESTRIAN

Pedestrian Direction: NOT PEDESTRIAN

Pedestrian Roadworker: NO

Car Passenger: NOT A CAR PASSENGER

PSV Passenger: NOT A BUS OR COACH PASSENGER

Accident No: 336668

Severity: SLIGHT

Date: Thursday 4-Oct-18 at 1700

No. Casualties: 2 No. 3

Easting: 298798 Northing: 521214

Weather: RAINING (WITHOUT HIGH WINDS)

Road Surface: WET / DAMP

Lighting: DAYLIGHT

Special Conds: NONE

Carriageway Hazds

Road: A595T Speed Limit: 70 Road DUAL CARRIAGEWAY

Location: DISTINGTON BY PASS SOUTHBOUND A595

Description: V001 has been racing another vehicle not noticing the built up traffic for the approaching roundabout. V001 has collided with a near stationary V002 - which in turn collided with V003. V001 carried such speed it ricohetted onto the grass verge and passed V002 and V003.

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: TRAVELLING TOO FAST FOR CONDITIONS

Factor 2: CARELESS/RECKLESS/IN A HURRY

Factor 3: EXCEEDING SPEED LIMIT

Factor 4: CARELESS/RECKLESS/IN A HURRY

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: VERY LIKELY

Confidence: UNKNOWN

Junction Details: NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control: NOT APPLICABLE

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	25	Veh. Leaving Cway:	LEFT CARRIAGEWAY NEARSIDE
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	FRONT
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	NE SW NE SW	Vehicle Make:	SEAT

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	25	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	16	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	TAKING PUPIL TO/FROM SCHOOL
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO GO AHEAD BUT HELD UP
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	49	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	BACK
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	NE SW NE SW	Vehicle Make:	FORD

Casualties

Vehicle Number :	3	Journey Purpose:	COMMUTING TO/FROM WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO GO AHEAD BUT HELD UP
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	57	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	BACK
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	NE SW NE SW	Vehicle Make:	SUZUKI

Casualties

Accident No:	345586	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Tuesday 30-Oct-18 at 1515	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	298725 Northing: 521152	Carriageway Hazds	
Road:	A595T	Speed Limit:	40
Location:	B5306 A595	Road	ROUNABOUT
Description:	V1 IS TRAVELLING ON ROUNABOUT WITH C01 ON PUSHBIKE TO HIS NEARSIDE. V1 BEGINS TO EXIT THE ROUNABOUT ONTO DUEL CARRIAGEWAY, OVERTAKING THE PUSHBIKE WHICH IS CROSSING THE EXIT OF THE CARRIAGEWAY AND STRIKES V1 ONTO THE NEARSIDE.		
Causation Factors: Pre 2005			Confidence:
Factor 1:	UNKNOWN		UNKNOWN
Factor 2:	UNKNOWN		UNKNOWN
Factor 3:	UNKNOWN		UNKNOWN
Factor 4:	UNKNOWN		UNKNOWN
Contributory Factors: Post 2005			
Factor 1:	UNKNOWN	Confidence:	UNKNOWN
Junction Details:	ROUNABOUT		
Junction Control:	GIVE WAY OR UNCONTROLLED		
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL		
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES		

Vehicle & Driver

Vehicle Number :

1

Journey Purpose:

NOT KNOWN

Vehicle Type:

CAR

Veh. Manoeuvres:

OVERTAKING MOVING VEHICLE ON ITS OFFSIDE

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

VEHICLE CLEARED JUNC OR PARKED AT JUNC EXIT

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

MALE

Object in Cway:

NONE

Driver Age:

82

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

1

Object off Cway:

NONE

Breath Test:

NEGATIVE

First Point of Impact:

NEARSIDE

Hit and Run:

OTHER

Direction:

W E

Vehicle Make:

MAN/VW

W E

Casualties

Vehicle Number :

2

Journey Purpose:

OTHER

Vehicle Type:

PEDAL CYCLE

Veh. Manoeuvres:

GOING AHEAD OTHER

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

FEMALE

Object in Cway:

NONE

Driver Age:

26

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

1

Object off Cway:

NONE

Breath Test:

NOT APPLICIABLE

First Point of Impact:

FRONT

Hit and Run:

OTHER

Direction:

W E

Vehicle Make:

?

W E

Casualties

Casualty :

1

Pedestrian Location

NOT PEDESTRIAN

Severity:

SLIGHT

Pedestrian Movement:

NOT PEDESTRIAN

Age:

26

Pedestrian Direction:

NOT PEDESTRIAN

Sex:

FEMALE

Pedestrian Roadworker

NO

Casualty Class:

DRIVER

Car Passenger:

NOT A CAR PASSENGER

Pupil:

NOT A SCHOOL PUPIL

PSV Passenger:

NOT A BUS OR COACH PASSENGER

Accident No:

835335

Weather:

UNKNOWN

Severity:

SLIGHT

Road Surface:

DRY

Date:

Thursday

18-Apr-19

at

1850

Lighting:

DAYLIGHT

No. Casualties:

2

No.

2

Special Conds:

NONE

Easting:

298714

Northing:

521103

Carriageway Hazds

Road:

A595T

Speed Limit:

30

Road

ROUNDAABOUT

Location:

A595 NEAR JUNCTION WITH A595

Description:

V1 AND V2 WERE TRAVELLING SOUTH BOUND ON THE A595 BYPASS, HOWGATE, WHITEHAVEN. V2 STOPPED AT THE WHITEHAVEN ROUNDAABOUT TO GIVE WAY TO TRAFFIC COMING FROM THE RIGHT. V1 COLLIDED WITH THE REAR OF V2.

Causation Factors: Pre 2005

Confidence:

Factor 1:

UNKNOWN

UNKNOWN

Factor 2:

UNKNOWN

UNKNOWN

Factor 3:

UNKNOWN

UNKNOWN

Factor 4:

UNKNOWN

UNKNOWN

Contributory Factors: Post 2005

Factor 1:

FAILED TO LOOK PROPERLY

Confidence:

VERY LIKELY

Factor 2:

FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED

Confidence:

VERY LIKELY

Factor 3:

CARELESS/RECKLESS/IN A HURRY

Confidence:

VERY LIKELY

Junction Details:

ROUNDAABOUT

Junction Control:

GIVE WAY OR UNCONTROLLED

Ped Xing Human Contro

NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs:

NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :

1

Journey Purpose:

NOT KNOWN

Vehicle Type:

CAR

Veh. Manoeuvres:

GOING AHEAD OTHER

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

UNKNOWN

Object in Cway:

NONE

Driver Age:

0

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

1

Object off Cway:

NONE

Breath Test:

DRIVER NOT CONTACTED AT TIME OF AC

First Point of Impact:

FRONT

Hit and Run:

NON-STOP VEHICLE NOT HIT

Direction:

S N

Vehicle Make:

VOLKSWAGEN

S N

Casualties

Vehicle Number :

2

Journey Purpose:

OTHER

Vehicle Type:

CAR

Veh. Manoeuvres:

WAITING TO GO AHEAD BUT HELD UP

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH

Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	68	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA12	Object off Cway:	NONE
		First Point of Impact:	BACK
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	S N S N	Vehicle Make:	NISSAN

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	68	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	25	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	856092	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	WET / DAMP
Date:	Tuesday 9-Jul-19 at 0130	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	2 No. 1	Special Conds:	NONE
Easting:	298741 Northing: 521151	Carriageway Hazds	
Road:	A595T Speed Limit: 70	Road	DUAL CARRIAGEWAY
Location:	A595		
Description:	Vehicle 1 has been travelling at speed and failed to turn and make the roundabout. It has drove directly over the top of the roundabout crashing into the barriers.		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	AGGRESSIVE DRIVING	Confidence:	VERY LIKELY
Factor 2:	ILLEGAL TURN OR DIRECTION OF TRAVEL	Confidence:	VERY LIKELY

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	UNKNOWN	Object in Cway:	BOLLARD / REFUGE
Driver Age:	0	Veh. Leaving Cway:	LEFT CARRIAGEWAY OFFSIDE ONTO CENTRAL RESERVAT
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	FRONT
Breath Test:	NOT APPLICIABLE	Hit and Run:	OTHER
Direction:	N S N S	Vehicle Make:	CITROEN

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	35	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	31	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 5	DAMAGE ONLY: 0	TOTAL: 5

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No:	228907	Weather:	Conditions
Severity:	SLIGHT	Road Surface:	DRY
Date:	Tuesday 3-Oct-17 at 2300	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	298364 Northing: 520689	Carriageway Hazds	

Road:	A595T	Speed Limit:	40	Road	SINGLE CARRIAGEWAY
Location:	PARTON A595 NEAR JN WITH ROSEHILL ROAD				
Description:	Vehicle 1 has been travelling down Rosehill Road at Whitehaven towards the junction which is situated on the give way to traffic on the A595 and moved out into the path of vehicle 2, collision has occurred and vehicle 2 has carried on and stopped on the opposite side of the road.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS	Confidence:	UNKNOWN
Factor 2:	LOSS OF CONTROL	Confidence:	UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	19	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	OFFSIDE
Direction:	S N	Hit and Run:	OTHER
	S N	Vehicle Make:	SEAT

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	19	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	BACK
Direction:	N S	Hit and Run:	OTHER
	N S	Vehicle Make:	AUDI

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	19	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 1	DAMAGE ONLY: 0	TOTAL: 1

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No: 167710				Weather: UNKNOWN	
Severity: SLIGHT				Road Surface: DRY	
Date: Wednesday 15-Mar-17 at 0830				Lighting: DAYLIGHT	
No. Casualties: 1 No. 3				Special Conds: NONE	
Easting: 298311 Northing: 517179				Carriageway Hazds	

Road: A5094	Speed Limit: 30	Road SINGLE CARRIAGEWAY
Location: INKERMANN TERRACE UNSPECIFIED ROAD OR LOCATION		
Description: V1 collided with the rear of V2. V2 was then shunted into the rear of V3. The driver of V3 received minor injury. All parties stopped at the scene. V2 & V3 were stationary at traffic lights waiting to proceed.		

Causation Factors: Pre 2005		Confidence:
Factor 1: UNKNOWN		UNKNOWN
Factor 2: UNKNOWN		UNKNOWN
Factor 3: UNKNOWN		UNKNOWN
Factor 4: UNKNOWN		UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	FOLLOWING TOO CLOSE	Confidence:	VERY LIKELY
Factor 2:	FAILED TO LOOK PROPERLY	Confidence:	VERY LIKELY

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1	Journey Purpose: NOT KNOWN
Vehicle Type: VAN/GOODS VEHICLE 3.5 TONNES MAXIMUM GROSS WEIGHT (MGW) AND UNDER	Veh. Manoeuvres: GOING AHEAD OTHER
Towing Artic: NO TOW/ARTICULATION	Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY
Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE	Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number: 0	Skidding & Overturn: NO SKIDDING/JACK-KNIFING
Driver Sex: MALE	Object in Cway: NONE
Driver Age: 61	Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY
Driver Postcode: 1	Object off Cway: NONE
Breath Test: NOT REQUESTED	First Point of Impact: FRONT
Direction: E W E W	Hit and Run: OTHER
	Vehicle Make: VAUXHALL

Casualties

Vehicle Number : 2	Journey Purpose: NOT KNOWN
Vehicle Type: CAR	Veh. Manoeuvres: WAITING TO GO AHEAD BUT HELD UP
Towing Artic: NO TOW/ARTICULATION	Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY
Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE	Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number: 0	Skidding & Overturn: NO SKIDDING/JACK-KNIFING
Driver Sex: FEMALE	Object in Cway: NONE
Driver Age: 0	Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY
Driver Postcode: 1	Object off Cway: NONE
Breath Test: NOT REQUESTED	First Point of Impact: FRONT
Direction: E W E W	Hit and Run: OTHER
	Vehicle Make: ?

Casualties

Vehicle Number : 3	Journey Purpose: NOT KNOWN
Vehicle Type: CAR	Veh. Manoeuvres: WAITING TO GO AHEAD BUT HELD UP
Towing Artic: NO TOW/ARTICULATION	Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY
Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE	Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number: 0	Skidding & Overturn: NO SKIDDING/JACK-KNIFING
Driver Sex: FEMALE	Object in Cway: NONE
Driver Age: 28	Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY
Driver Postcode: CA19	Object off Cway: NONE
Breath Test: DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact: DID NOT IMPACT
Direction: E W E W	Hit and Run: OTHER
	Vehicle Make: MINI

Casualties

Casualty : 1	Pedestrian Location NOT PEDESTRIAN

Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	28	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	230132	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Saturday 7-Oct-17 at 2315	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	2	No.	2
Special Conds:	NONE	Carriageway Hazds	
Easting:	298326	Northing:	517139

Road:	A595T	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	INKERMAN TERRACE AT JN WITH A595				
Description:	V002 was stopped with handbrake on - on Inkerman Terrace, Whitehaven - waiting at a red light. V001 then drove into the back of V002.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	FAILED TO LOOK PROPERLY	Confidence:	UNKNOWN
Factor 2:	INEXPERIENCED OR LEARNER DRIVER/RIDER	Confidence:	UNKNOWN

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	AUTOMATIC TRAFFIC SIGNAL
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO TURN LEFT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	18	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	FRONT
Direction:	W E	Hit and Run:	OTHER
	W E	Vehicle Make:	VAUXHALL

Casualties

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO TURN LEFT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	47	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	BACK
Direction:	W E	Hit and Run:	OTHER
	W E	Vehicle Make:	FORD

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	20	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	285697	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SERIOUS	Road Surface:	DRY
Date:	Wednesday 11-Apr-18 at 1607	Lighting:	DAYLIGHT
No. Casualties:	1	No.	1
Special Conds:	NONE	Carriageway Hazds	
Easting:	298322	Northing:	517136

Road:	A595T	Speed Limit:	40	Road	SINGLE CARRIAGEWAY
Location:	LOOP ROAD SOUTH A595 AT JN WITH INKERMAN TERRACE A5094				
Description:	V001 has been travelling along A595 travelling South - as vehicle has approached the traffic lights at the junction with Inkerman terrace - a				

pedestrian C001 has stepped off the nearside pavement and into the carriageway in an attempt to cross the road. The traffic lights were on green and the driver of v001 has been unable to avoid a collision.

Causation Factors: Pre 2005

Factor 1:	UNKNOWN	Confidence:	UNKNOWN
Factor 2:	UNKNOWN	Confidence:	UNKNOWN
Factor 3:	UNKNOWN	Confidence:	UNKNOWN
Factor 4:	UNKNOWN	Confidence:	UNKNOWN

Contributory Factors: Post 2005

Factor 1:	FAILED TO LOOK PROPERLY	Confidence:	UNKNOWN
Factor 2:	FAILED TO JUDGE VEHICLE'S PATH OR SPEED	Confidence:	VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	AUTOMATIC TRAFFIC SIGNAL
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	PELICAN, PUFFIN, TOUCAN OR SIMILAR NON-JUNCTION PEDESTRIAN LIGHT CROSSING

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	48	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S		
	N S	Vehicle Make:	FORD

Casualties

Casualty :	1	Pedestrian Location	IN CARRIAGEWAY, CROSSING ON PEDESTRIAN CROSSING FACILITY
Severity:	SERIOUS	Pedestrian Movement:	CROSSING FROM DRIVER'S NEARSIDE
Age:	37	Pedestrian Direction:	W
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	PEDESTRIAN	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	311000	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SERIOUS	Road Surface:	DRY
Date:	Saturday 23-Jun-18 at 1303	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	298313 Northing: 517178	Carriageway Hazds	

Road:	A595T	Speed Limit:	40	Road	SINGLE CARRIAGEWAY
Location:	WHITEHAVEN, BYPASS A595 NEAR JN WITH INKERMANS TERRACE				
Description:	Vehicle 2 was travelling north through traffic light controlled junction. Vehicle 1 travelling south through same junction and turned right to travel down more minor road into the path of Vehicle 2 causing a collision.				

Causation Factors: Pre 2005

Factor 1:	UNKNOWN	Confidence:	UNKNOWN
Factor 2:	UNKNOWN	Confidence:	UNKNOWN
Factor 3:	UNKNOWN	Confidence:	UNKNOWN
Factor 4:	UNKNOWN	Confidence:	UNKNOWN

Contributory Factors: Post 2005

Factor 1:	FAILED TO LOOK PROPERLY	Confidence:	UNKNOWN
Factor 2:	POOR TURN OR MANOEUVRE	Confidence:	UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	TURNING RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	26	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N W		
	N W	Vehicle Make:	AUDI

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	33	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	FRONT
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	S N S N	Vehicle Make:	FORD

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SERIOUS	Pedestrian Movement:	NOT PEDESTRIAN
Age:	33	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Conditions

Accident No:	318871	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Friday 10-Aug-18 at 2314	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	7 No. 2	Special Conds:	NONE
Easting:	298315	Northing:	517182
		Carriageway Hazds	

Road:	A595T	Speed Limit:	40	Road	ONE WAY STREET
Location:	LOOP ROAD NORTH A595 AT JN WITH INKERMANS TERRACE				
Description:	V001 has been driving along A595 turning right to enter Inkerman Terrace - in turning right at the lights V001 has attempted to make the manoeuvre but in doing so has cut across the path of V002 which was travelling in the opposite direction on A595 towards Workington.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN UNKNOWN
Factor 2:	UNKNOWN UNKNOWN
Factor 3:	UNKNOWN UNKNOWN
Factor 4:	UNKNOWN UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	INEXPERIENCED OR LEARNER DRIVER/RIDER VERY LIKELY
Factor 2:	TYRES ILLEGAL, DEFECTIVE OR UNDER INFLATED UNKNOWN
Factor 3:	INEXPERIENCED OR LEARNER DRIVER/RIDER UNKNOWN

Junction Details:	OTHER JUNCTION
Junction Control:	AUTOMATIC TRAFFIC SIGNAL
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	PELICAN, PUFFIN, TOUCAN OR SIMILAR NON-JUNCTION PEDESTRIAN LIGHT CROSSING

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO TURN RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	18	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	FRONT
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	N S N S	Vehicle Make:	AUDI

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	18	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Casualty :	7	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	18	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	TAXI/PRIVATE HIRE CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	54	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
		First Point of Impact:	FRONT
Breath Test:	NOT REQUESTED	Hit and Run:	OTHER

Direction:	S N	Vehicle Make:	SKODA
	S N		

Casualties

Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	54	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	3	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	49	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	4	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	39	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	5	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	8	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	6	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	10	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	347782	Weather:	RAINING (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	WET / DAMP
Date:	Sunday 11-Nov-18 at 1734	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	2 No. 2	Special Conds:	NONE
Easting:	298321 Northing: 517138	Carriageway Hazds	
Road:	A595T Speed Limit: 30	Road	SINGLE CARRIAGEWAY
Location:	INKERMAN TERRACE NEAR JN WITH COACH ROAD		
Description:	V1 DROVE INTO REAR OF V2 WHILST V2 WAS STATIONARY AT RED TRAFFIC LIGHTS		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	IMPAIRED BY ALCOHOL	Confidence:	UNKNOWN
Factor 2:	SLIPPERY ROAD (DUE TO WEATHER)	Confidence:	VERY LIKELY
Factor 3:	IMPAIRED BY ALCOHOL	Confidence:	VERY LIKELY

Junction Details:	CROSSROADS
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Control:	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	CENTRAL REFUGE - NO OTHER CONTROLS

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	35	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	POSITIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	SKODA
	N S		

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO GO AHEAD BUT HELD UP
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE

Driver Sex:	MALE	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Age:	19	Object off Cway:	NONE
Driver Postcode:	1	First Point of Impact:	BACK
Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	N S	Vehicle Make:	SEAT
	N S		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	19	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER
Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	22	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	FRONT SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 2	SLIGHT: 4	DAMAGE ONLY: 0	TOTAL: 6

Full Collision Report



Report date range

Start Date = 31-Jan-17
End Date = 31-Jan-20

Accident No: 155406		Weather: FINE (WITHOUT HIGH WINDS)	
Severity: SLIGHT		Conditions	
Date: Tuesday 7-Feb-17	at 1806	Road Surface: DRY	
No. Casualties: 4	No. 2	Lighting: DARKNESS: STREET LIGHTS PRESENT AND LIT	
Easting: 298604	Northing: 516788	Special Conds: NONE	
		Carriageway Hazds	
Road: B5295	Speed Limit: 30	Road ROUNDABOUT	
Location: HENSINGHAM SQUARE UNSPECIFIED ROAD OR LOCATION			
Description: VEH 2 APPROACHED ROUNDABOUT AND COMMITTED, VEH 1 HAS PROCEEDED ONTO ROUNDABOUT WITHOUT GIVING WAY, VEH 1 HAS COLLIDED WITH VEH 2			

Causation Factors: Pre 2005		Confidence:	
Factor 1:	UNKNOWN	UNKNOWN	
Factor 2:	UNKNOWN	UNKNOWN	
Factor 3:	UNKNOWN	UNKNOWN	
Factor 4:	UNKNOWN	UNKNOWN	

Contributory Factors: Post 2005			
Factor 1:	DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS	Confidence:	VERY LIKELY
Factor 2:	INEXPERIENCE WITH TYPE OF VEHICLE	Confidence:	VERY LIKELY
Factor 3:	DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS	Confidence:	VERY LIKELY
Factor 4:	INEXPERIENCE WITH TYPE OF VEHICLE	Confidence:	VERY LIKELY
Factor 5:	DISOBEYED GIVE WAY OR STOP SIGN OR MARKINGS	Confidence:	VERY LIKELY

Junction Details:	ROUNDABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1	Journey Purpose: OTHER
Vehicle Type: CAR	Veh. Manoeuvres: GOING AHEAD OTHER
Towing Artic: NO TOW/ARTICULATION	Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY
Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE	Junction Location: DID NOT IMPACT
Reg. Number: 0	Skidding & Overturn: NO SKIDDING/JACK-KNIFING
Driver Sex: MALE	Object in Cway: NONE
Driver Age: 52	Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY
Driver Postcode: 1	Object off Cway: NONE
Breath Test: NEGATIVE	First Point of Impact: FRONT
	Hit and Run: OTHER
Direction: S N	
S N	Vehicle Make: SKODA

Casualties

Casualty : 1	Pedestrian Location NOT PEDESTRIAN
Severity: SLIGHT	Pedestrian Movement: NOT PEDESTRIAN
Age: 52	Pedestrian Direction: NOT PEDESTRIAN
Sex: MALE	Pedestrian Roadworker NO
Casualty Class: DRIVER	Car Passenger: NOT A CAR PASSENGER
Pupil: NOT A SCHOOL PUPIL	PSV Passenger: NOT A BUS OR COACH PASSENGER

Vehicle Number : 2	Journey Purpose: OTHER
Vehicle Type: CAR	Veh. Manoeuvres: GOING AHEAD OTHER
Towing Artic: NO TOW/ARTICULATION	Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY
Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE	Junction Location: DID NOT IMPACT
Reg. Number: 0	Skidding & Overturn: NO SKIDDING/JACK-KNIFING
Driver Sex: FEMALE	Object in Cway: NONE
Driver Age: 50	Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY
Driver Postcode: 1	Object off Cway: NONE
Breath Test: NEGATIVE	First Point of Impact: NEARSIDE
	Hit and Run: OTHER
Direction: E W	
E W	Vehicle Make: MINI

Casualties

Casualty : 2	Pedestrian Location NOT PEDESTRIAN
Severity: SLIGHT	Pedestrian Movement: NOT PEDESTRIAN
Age: 50	Pedestrian Direction: NOT PEDESTRIAN
Sex: FEMALE	Pedestrian Roadworker NO
Casualty Class: DRIVER	Car Passenger: NOT A CAR PASSENGER
Pupil: NOT A SCHOOL PUPIL	PSV Passenger: NOT A BUS OR COACH PASSENGER

Casualty : 3	Pedestrian Location NOT PEDESTRIAN
Severity: SLIGHT	Pedestrian Movement: NOT PEDESTRIAN

Age:	10	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Casualty :	4	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	8	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	820177	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	WET / DAMP
Date:	Saturday 23-Feb-19 at 2347	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	298591	Northing:	516799
Carriageway Hazds			
Road:	B5295	Speed Limit:	30
Road SINGLE CARRIAGEWAY			
Location:	MAIN STREET (B5295) - 33 METRES FROM JUNCTION WITH BROOK BANK		
Description:	V1 HAS BEEN TRAVELLING DOWNHILL TOWARDS THE ROUNDABOUT FROM MAIN STREET, V1 HAS LOST CONTROL ON THE ROUNDABOUT AND COLLIDED WITH A PREMISES BEFORE DEFLECTING INTO THE PATH OF A TAXI TRAVELLING FROM RIPTON MORRSIDE.		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	SLIPPERY ROAD (DUE TO WEATHER)	Confidence:	VERY LIKELY
Factor 2:	LOSS OF CONTROL	Confidence:	VERY LIKELY
Factor 3:	INEXPERIENCED OR LEARNER DRIVER/RIDER	Confidence:	VERY LIKELY

Junction Details:	ROUNDABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Control:	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	DID NOT IMPACT
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	19	Veh. Leaving Cway:	LEFT CARRIAGEWAY NEARSIDE
Driver Postcode:	CA28	Object off Cway:	WALL OR FENCE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	NW SE		
	NW SE	Vehicle Make:	VAUXHALL

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	17	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	VEHICLE OR PILLION PASSENGER	Car Passenger:	REAR SEAT CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	DID NOT IMPACT
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	68	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	SW NE		
	SW NE	Vehicle Make:	VOLKSWAGEN

Casualties

FATAL : 0	SERIOUS: 0	SLIGHT: 2	DAMAGE ONLY: 0	TOTAL: 2

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No: 274072

Severity: SLIGHT

Date: Friday 23-Feb-18 at 2000

No. Casualties: 1 No. 1

Easting: 298570 Northing: 516085

Weather: FINE (WITHOUT HIGH WINDS)

Road Surface: DRY

Lighting: DARKNESS: STREET LIGHTS PRESENT AND LIT

Special Conds: NONE

Carriageway Hazds

Road: A595T Speed Limit: 30 Road SINGLE CARRIAGEWAY

Location: HENSINGHAM ROUNDABOUT A595

Description: VEH 1 WESTBOUND COLLIDED WITH PEDESTRIAN WHO RAN INTO CARRIAGEWAY

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: FAILED TO LOOK PROPERLY

Factor 2: PEDESTRIAN WEARING DARK CLOTHING AT NIGHT

Confidence: VERY LIKELY

Confidence: VERY LIKELY

Junction Details: ROUNDABOUT

Junction Control: GIVE WAY OR UNCONTROLLED

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: CENTRAL REFUGE - NO OTHER CONTROLS

Vehicle & Driver

Vehicle Number : 1

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: MALE

Driver Age: 21

Driver Postcode: 1

Breath Test: NEGATIVE

Direction: E W

E W

Journey Purpose: NOT KNOWN

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY

Object off Cway: NONE

First Point of Impact: FRONT

Hit and Run: OTHER

Vehicle Make: VOLKSWAGEN

Casualties

Casualty : 1

Severity: SLIGHT

Age: 16

Sex: MALE

Casualty Class: PEDESTRIAN

Pupil: NOT A SCHOOL PUPIL

Pedestrian Location IN CARRIAGEWAY, CROSSING ELSEWHERE WITHIN 50 METRES OF F

Pedestrian Movement: CROSSING FROM DRIVER'S OFFSIDE

Pedestrian Direction: UNKNOWN

Pedestrian Roadworker NO

Car Passenger: NOT A CAR PASSENGER

PSV Passenger: NOT A BUS OR COACH PASSENGER

Accident No: 312287

Severity: SLIGHT

Date: Wednesday 18-Jul-18 at 0220

No. Casualties: 1 No. 1

Easting: 298581 Northing: 516102

Weather: UNKNOWN

Road Surface: DRY

Lighting: DARKNESS: STREET LIGHTING UNKNOWN

Special Conds: NONE

Carriageway Hazds

Road: A595T Speed Limit: 40 Road SINGLE CARRIAGEWAY

Location: EGREMONT ROAD A595 AT JN WITH HOMEWOOD ROAD

Description: V001 drives along carriageway and strikes sharp deviation bollards on roundabout causing damage - vehicle leaves scene and fails to stop.

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: TRAVELLING TOO FAST FOR CONDITIONS

Factor 2: POOR TURN OR MANOEUVRE

Confidence: VERY LIKELY

Confidence: VERY LIKELY

Junction Details: CROSSROADS

Junction Control: GIVE WAY OR UNCONTROLLED

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1

Vehicle Type: CAR

Journey Purpose: NOT KNOWN

Veh. Manoeuvres: GOING AHEAD LEFT HAND BEND

Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	29	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	FRONT
Direction:	N S	Hit and Run:	NON-STOP VEHICLE NOT HIT
	N S	Vehicle Make:	AUDI

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	29	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	321491	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SERIOUS	Road Surface:	DRY
Date:	Monday 20-Aug-18 at 2232	Lighting:	DARKNESS: STREET LIGHTS PRESENT AND LIT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	298529	Northing:	516137
Carriageway Hazds			
Road:	A595T	Speed Limit:	60
Location:	A595 NEAR JN WITH MEADOW ROAD		
Description:	V001 travelling south and turning right onto meadow Road - V002 travelling north - V001 turned in front of path of V002 causing him to crash into the rear nearside door.		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005	
Factor 1:	FAILED TO LOOK PROPERLY
Factor 2:	DISTRACTION IN VEHICLE
Confidence:	UNKNOWN
Confidence:	VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	COMMUTING TO/FROM WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	TURNING RIGHT
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	58	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	NEARSIDE
Direction:	N S	Hit and Run:	OTHER
	N S	Vehicle Make:	PEUGEOT

Casualties

Vehicle Number :	2	Journey Purpose:	NOT KNOWN
Vehicle Type:	MOTORCYCLE OVER 50CC AND UP TO 125CC	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	SKIDDED AND OVERTURNED
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	18	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
Direction:	S N	Hit and Run:	OTHER
	S N	Vehicle Make:	YAMAHA

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SERIOUS	Pedestrian Movement:	NOT PEDESTRIAN
Age:	18	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No:	926674	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Monday 20-Jan-20 at 1240	Lighting:	DAYLIGHT
No. Casualties:	2 No. 2	Special Conds:	NONE
Easting:	298807	Carriageway Hazds	

Road:	A595T	Speed Limit:	30	Road	SINGLE CARRIAGEWAY
Location:	EGREMONT ROAD (A595) AT JUNCTION WITH MIREHOUSE ROAD				
Description:	V001 was driving south down A595 when lights were on green as they changed to red was too committed and continued - as V002 was pulling out of junction at West Lakes science park - V001 tried to swerve and both vehicles collided head on.				

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005			
Factor 1:	FAILED TO LOOK PROPERLY	Confidence:	VERY LIKELY
Factor 2:	CARELESS/RECKLESS/IN A HURRY	Confidence:	VERY LIKELY
Factor 3:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED	Confidence:	VERY LIKELY

Junction Details:	"T" OR STAGGERED JUNCTION
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	32	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA15	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S		
	N S	Vehicle Make:	BMW

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	32	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD RIGHT HAND BEND
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	38	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	W S		
	W S	Vehicle Make:	MERCEDES

Casualties

Casualty :	2	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	38	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 1	DAMAGE ONLY: 0	TOTAL: 1

Full Collision Report



Report date range

Start Date = 31/Jan/2017
End Date = 31/Jan/2020

Accident No: 160868

Severity: SLIGHT

Date: Wednesday 1-Mar-17 at 1855

No. Casualties: 1No. 2

Easting: 300739Northing: 511604

Weather: UNKNOWN

Road Surface: WET / DAMP

Lighting: DARKNESS: NO STREET LIGHTING

Special Conds: NONE

Carriageway Hazds

Conditions

Road: A595TSpeed Limit: 60Road SINGLE CARRIAGEWAY

Location: EAST OF CLINTZ ROUNDABOUT A5086

Description: V2 travelling East along A5086 Egremont towards Cleator slowed for traffic (inc. Cyclist) ahead and V1 collided into rear of V2 causing very minor injury to C1 in V2 and respective damage to V1 and V2 as driver of V1 attempted to swerve to nearside to avoid collision hence V1 D/S/F to V2 N/S/R.

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Factor 2: UNKNOWN

Factor 3: UNKNOWN

Factor 4: UNKNOWN

Confidence: UNKNOWN

Contributory Factors: Post 2005

Factor 1: FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED

Confidence: VERY LIKELY

Junction Details: NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control: NOT APPLICABLE

Ped Xing Human Contro NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs: NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number : 1

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: MALE

Driver Age: 24

Driver Postcode: CA25

Breath Test: DRIVER NOT CONTACTED AT TIME OF AC

Direction: S N
S N

Journey Purpose: NOT KNOWN

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY

Object off Cway: NONE

First Point of Impact: BACK

Hit and Run: OTHER

Vehicle Make: CITROEN

Casualties

Vehicle Number : 2

Vehicle Type: CAR

Towing Artic: NO TOW/ARTICULATION

Foreign Vehicle: NOT FOREIGN REGISTERED VEHICLE

Reg. Number: 0

Driver Sex: MALE

Driver Age: 40

Driver Postcode: CA22

Breath Test: DRIVER NOT CONTACTED AT TIME OF AC

Direction: S N
S N

Journey Purpose: NOT KNOWN

Veh. Manoeuvres: GOING AHEAD OTHER

Veh. Loc. In Road: NOT ON MAIN CARRAIGEWAY

Junction Location: NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Skidding & Overturn: NO SKIDDING/JACK-KNIFING

Object in Cway: NONE

Veh. Leaving Cway: DID NOT LEAVE CARRIAGEWAY

Object off Cway: NONE

First Point of Impact: FRONT

Hit and Run: OTHER

Vehicle Make: TOYOTA

Casualties

Casualty : 1

Severity: SLIGHT

Age: 40

Sex: MALE

Casualty Class: DRIVER

Pupil: NOT A SCHOOL PUPIL

Pedestrian Location: NOT PEDESTRIAN

Pedestrian Movement: NOT PEDESTRIAN

Pedestrian Direction: NOT PEDESTRIAN

Pedestrian Roadworker: NO

Car Passenger: NOT A CAR PASSENGER

PSV Passenger: NOT A BUS OR COACH PASSENGER

Accident No: 161945

Severity: SLIGHT

Date: Saturday 4-Mar-17 at 1550

No. Casualties: 1No. 2

Easting: 300714Northing: 511623

Weather: UNKNOWN

Road Surface: DRY

Lighting: DAYLIGHT

Special Conds: NONE

Carriageway Hazds

Conditions

Road: A595TSpeed Limit: 30Road SINGLE CARRIAGEWAY

Location: CLINTS BROW A595

Description: Vehicle 002 has been in stop start traffic. The Vehicle 001 has been following and the driver has not anticipated the vehicle in front stopping. Vehicle 001 has then collided with the rear of Vehicle 002.

Causation Factors: Pre 2005

Factor 1: UNKNOWN

Confidence: UNKNOWN

Factor 2:	UNKNOWN	UNKNOWN
Factor 3:	UNKNOWN	UNKNOWN
Factor 4:	UNKNOWN	UNKNOWN

Contributory Factors: Post 2005

Factor 1:	FOLLOWING TOO CLOSE	Confidence:	UNKNOWN

Junction Details:	NOT AT OR WITHIN 20 METRES OF JUNCTION
Junction Control:	NOT APPLICABLE
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	AGRICULTURAL VEHICLE (INCLUDES DIGGERS ETC.)	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	SINGLE TRAILER	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	22	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA27	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	E W	Vehicle Make:	VALTRA
	E W		

Casualties

Vehicle Number :	2	Journey Purpose:	COMMUTING TO/FROM WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	STOPPING
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	64	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA14	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	E W	Vehicle Make:	HONDA
	E W		

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	64	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	170254	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Thursday 23-Mar-17 at 1730	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	300734 Northing: 511584	Carriageway Hazds	
Road:	A595T Speed Limit: 30 Road	ROUNDABOUT	
Location:	GILLFOOT A595 CLINTS BROW A595		
Description:	VEH 2 APPROACHED ROUNDABOUT , VEH 2 HAS GIVEN WAY, VEH 1 HAS COLLIDED WITH REAR OF VEH 2		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN UNKNOWN
Factor 2:	UNKNOWN UNKNOWN
Factor 3:	UNKNOWN UNKNOWN
Factor 4:	UNKNOWN UNKNOWN

Contributory Factors: Post 2005

Factor 1:	UNKNOWN	Confidence:	UNKNOWN

Junction Details:	ROUNDABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	43	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA22	Object off Cway:	NONE
		First Point of Impact:	FRONT

Breath Test:	NOT REQUESTED	Hit and Run:	OTHER
Direction:	W E W E	Vehicle Make:	TOYOTA(UK)

Casualties

Vehicle Number :	2	Journey Purpose:	OTHER
Vehicle Type:	CAR	Veh. Manoeuvres:	WAITING TO GO AHEAD BUT HELD UP
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	27	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NOT REQUESTED	First Point of Impact:	BACK
Direction:	W E W E	Hit and Run:	OTHER
		Vehicle Make:	MINI

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	27	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	226051	Weather:	FINE (WITHOUT HIGH WINDS)
Severity:	SLIGHT	Road Surface:	DRY
Date:	Thursday 28-Sep-17 at 1412	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	300733 Northing: 511616	Carriageway Hazds	
Road:	A595T	Speed Limit:	60
Location:	CLINT BROW ROUNDABOUT A595 AT JN WITH A5086	Road	SINGLE CARRIAGEWAY
Description:	VEH 1 TRAVELLING BEHIND VEH 2, HAS STRUCK VEH 2 WHILST ON THE ROUNDABOUT CAUSING RIDER TO FALL OFF		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN
Factor 2:	UNKNOWN
Factor 3:	UNKNOWN
Factor 4:	UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	UNKNOWN
	UNKNOWN

Junction Details:	ROUNDABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	MOTORCYCLE OVER 500CC	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	29	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NOT PROVIDED (MEDICAL REASONS)	First Point of Impact:	NEARSIDE
Direction:	S N S N	Hit and Run:	OTHER
		Vehicle Make:	HONDA(M/CYCLES)

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	29	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	MALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	27	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	OFFSIDE
		Hit and Run:	OTHER

Direction:

S N

S N

Vehicle Make:

VAUXHALL

Casualties

Accident No:

347293

Severity:

SLIGHT

Date:

Monday

26-Nov-18

at

0720

No. Casualties:

1

No.

1

Easting:

300698

Northing:

511614

Weather:

UNKNOWN

Road Surface:

DRY

Lighting:

DAYLIGHT

Special Conds:

NONE

Carriageway Hazds

Road:

A595T

Speed Limit:

60

Road

DUAL CARRIAGEWAY

Location:

CLINTS BROW A595

Description:

V001 was travelling north on the A595 - V001 then crashed into the railings coming off the roundabout onto the carriageway.

Causation Factors: Pre 2005

Confidence:

Factor 1:

UNKNOWN

UNKNOWN

Factor 2:

UNKNOWN

UNKNOWN

Factor 3:

UNKNOWN

UNKNOWN

Factor 4:

UNKNOWN

UNKNOWN

Contributory Factors: Post 2005

Factor 1:

VISOR OR WINDSCREEN DIRTY, SCRATCHED OR FROSTED ETC.

Confidence:

UNKNOWN

Junction Details:

NOT AT OR WITHIN 20 METRES OF JUNCTION

Junction Control:

NOT APPLICABLE

Ped Xing Human Contro

NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs:

NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :

1

Journey Purpose:

COMMUTING TO/FROM WORK

Vehicle Type:

CAR

Veh. Manoeuvres:

GOING AHEAD OTHER

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

NOT AT JUNCTION (OR WITHIN 20M/22 YARDS)

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

MALE

Object in Cway:

NONE

Driver Age:

20

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:

1

Object off Cway:

NONE

Breath Test:

NEGATIVE

First Point of Impact:

FRONT

Hit and Run:

OTHER

Direction:

N S

Vehicle Make:

VAUXHALL

N S

Casualties

Casualty :

1

Severity:

SLIGHT

Age:

20

Sex:

MALE

Casualty Class:

DRIVER

Pupil:

NOT A SCHOOL PUPIL

Pedestrian Location

NOT PEDESTRIAN

Pedestrian Movement:

NOT PEDESTRIAN

Pedestrian Direction:

NOT PEDESTRIAN

Pedestrian Roadworker

NO

Car Passenger:

NOT A CAR PASSENGER

PSV Passenger:

NOT A BUS OR COACH PASSENGER

Accident No:

809208

Severity:

SLIGHT

Date:

Wednesday

16-Jan-19

at

0730

No. Casualties:

1

No.

2

Easting:

300736

Northing:

511588

Weather:

FINE (WITHOUT HIGH WINDS)

Road Surface:

DRY

Lighting:

DARKNESS: STREET LIGHTS PRESENT AND LIT

Special Conds:

NONE

Carriageway Hazds

Road:

A595T

Speed Limit:

30

Road

ROUNDAABOUT

Location:

A595 NEAR JUNCTION WITH NORTH ROAD (A595)

Description:

WHILE NEGOTIATING CLINTSHILL ROUNDAABOUT A595, V2 WAS HIT FROM THE REAR BY AN UNKOWN VEHICLE (V1). NEITHER VEHICLE STOPPED

Causation Factors: Pre 2005

Confidence:

Factor 1:

UNKNOWN

UNKNOWN

Factor 2:

UNKNOWN

UNKNOWN

Factor 3:

UNKNOWN

UNKNOWN

Factor 4:

UNKNOWN

UNKNOWN

Contributory Factors: Post 2005

Factor 1:

UNKNOWN

Confidence:

UNKNOWN

Factor 2:

UNKNOWN

Confidence:

UNKNOWN

Junction Details:

ROUNDAABOUT

Junction Control:

GIVE WAY OR UNCONTROLLED

Ped Xing Human Contro

NO CROSSING FACILITY OR NO HUMAN CONTROL

Ped Xing Physical Facs:

NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :

1

Journey Purpose:

NOT KNOWN

Vehicle Type:

CAR

Veh. Manoeuvres:

GOING AHEAD OTHER

Towing Artic:

NO TOW/ARTICULATION

Veh. Loc. In Road:

NOT ON MAIN CARRAIGEWAY

Foreign Vehicle:

NOT FOREIGN REGISTERED VEHICLE

Junction Location:

Reg. Number:

0

Skidding & Overturn:

NO SKIDDING/JACK-KNIFING

Driver Sex:

UNKNOWN

Object in Cway:

NONE

Driver Age:

0

Veh. Leaving Cway:

DID NOT LEAVE CARRIAGEWAY

Driver Postcode:	1	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N SE		
	N SE	Vehicle Make:	?

Casualties

Vehicle Number :	2	Journey Purpose:	JOURNEY AS PART OF WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	56	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA25	Object off Cway:	NONE
Breath Test:	DRIVER NOT CONTACTED AT TIME OF AC	First Point of Impact:	BACK
		Hit and Run:	OTHER
Direction:	N SE		
	N SE	Vehicle Make:	NISSAN

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	56	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

Accident No:	835818	Weather:	UNKNOWN
Severity:	SLIGHT	Road Surface:	DRY
Date:	Tuesday 9-Apr-19 at 1713	Lighting:	DAYLIGHT
No. Casualties:	1 No. 2	Special Conds:	NONE
Easting:	300711 Northing: 511632	Carriageway Hazds	
Road:	A595T Speed Limit: 50 Road	SINGLE CARRIAGEWAY	
Location:	A595 NEAR JUNCTION WITH A595		
Description:	VEH 2 STOPPED AT JCT, VEH 1 FAILED TO SLOW DOWN IN TIME AND COLLIDED WITH REAR OF VEH 2		

Causation Factors: Pre 2005	Confidence:
Factor 1:	UNKNOWN UNKNOWN
Factor 2:	UNKNOWN UNKNOWN
Factor 3:	UNKNOWN UNKNOWN
Factor 4:	UNKNOWN UNKNOWN

Contributory Factors: Post 2005	Confidence:
Factor 1:	FOLLOWING TOO CLOSE POSSIBLE
Factor 2:	FAILED TO LOOK PROPERLY POSSIBLE
Factor 3:	FAILED TO JUDGE OTHER PERSON'S PATH OR SPEED POSSIBLE
Factor 4:	DISTRACTION IN VEHICLE POSSIBLE
Factor 5:	DAZZLING SUN POSSIBLE
Factor 6:	SUDDEN BRAKING POSSIBLE

Junction Details:	ROUNDAABOUT
Junction Control:	GIVE WAY OR UNCONTROLLED
Ped Xing Human Contro	NO CROSSING FACILITY OR NO HUMAN CONTROL
Ped Xing Physical Facs:	NO PHYSICAL CROSSING FACILITY WITHIN 50 METRES

Vehicle & Driver

Vehicle Number :	1	Journey Purpose:	COMMUTING TO/FROM WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	GOING AHEAD OTHER
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	MALE	Object in Cway:	NONE
Driver Age:	22	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
Breath Test:	NEGATIVE	First Point of Impact:	FRONT
		Hit and Run:	OTHER
Direction:	N S		
	N S	Vehicle Make:	FORD

Casualties

Vehicle Number :	2	Journey Purpose:	COMMUTING TO/FROM WORK
Vehicle Type:	CAR	Veh. Manoeuvres:	STOPPING
Towing Artic:	NO TOW/ARTICULATION	Veh. Loc. In Road:	NOT ON MAIN CARRAIGEWAY
Foreign Vehicle:	NOT FOREIGN REGISTERED VEHICLE	Junction Location:	VEHICLE APPROACHING JUNC OR PARKED JUNC APPROACH
Reg. Number:	0	Skidding & Overturn:	NO SKIDDING/JACK-KNIFING
Driver Sex:	FEMALE	Object in Cway:	NONE
Driver Age:	47	Veh. Leaving Cway:	DID NOT LEAVE CARRIAGEWAY
Driver Postcode:	CA28	Object off Cway:	NONE
		First Point of Impact:	BACK

Breath Test:	NEGATIVE	Hit and Run:	OTHER
Direction:	N S N S	Vehicle Make:	SEAT

Casualties

Casualty :	1	Pedestrian Location	NOT PEDESTRIAN
Severity:	SLIGHT	Pedestrian Movement:	NOT PEDESTRIAN
Age:	47	Pedestrian Direction:	NOT PEDESTRIAN
Sex:	FEMALE	Pedestrian Roadworker	NO
Casualty Class:	DRIVER	Car Passenger:	NOT A CAR PASSENGER
Pupil:	NOT A SCHOOL PUPIL	PSV Passenger:	NOT A BUS OR COACH PASSENGER

FATAL : 0	SERIOUS: 0	SLIGHT: 7	DAMAGE ONLY: 0	TOTAL: 7