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Document Checking:

Primary Contributor	M Smith	Initialled	MJS

Contributor	Y Liu	Initialled	YL

Review By	M Smith	Initialled	MJS

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1. Introduction

1.1 Introduction

- 1.1.1 WYG has been commissioned by Homes England to provide transport and highways advice in relation to an outline planning application for up to 370 residential units on land at Harras Moor, Whitehaven, Cumbria.
- 1.1.2 The site, which is currently largely green fields, is located around 1.3km east of Whitehaven town centre on land south of Harras Road and is situated between existing residential development and an industrial development. The location of the site is shown on **Plan 1** while the site's location in relation to the immediate local highway network is shown on **Plan 2**.
- 1.1.3 The local planning authority (LPA) for the area where the site is located is Copeland Borough Council (CBC) while the local highway authority (LHA) is Cumbria County Council (CCC). Highways England (HE) maintain the nearby A595 which runs north to south between the site and Whitehaven town centre.
- 1.1.4 There is little relevant planning history on the site. There are only two relevant applications, one which relates to land on the south-west part of the site and was withdrawn in 2014 without being determined and another that relates to land, not on the site but on an adjacent parcel of land that lies just north of Harras Road. Two outline applications (application numbers 4/16/2415/001 and 4/16/2416/001) for a total of 110 residential dwellings were submitted in November 2016 for this site and have recently been approved. These applications have been taken into account in this TA.
- 1.1.5 Previous to the preparation of this report, a Transport Assessment (TA) dated 14th June 2018 was prepared to accompany this application. Comments from the LHA and HE have now been received on the submitted TA, and these are attached in **Appendix A** along with relevant scoping correspondence received prior to the issue of the original TA.
- 1.1.6 This TA Addendum has been prepared to incorporate the LHA's and HE's comments into the original TA.

1.2 Structure of the Report

- 1.2.1 Following this introduction, the report is structured as follows:



- **Section 2** sets out national and local transportation guidance and policies that are relevant to the development proposals.
- **Section 3** describes existing conditions on and around the site including the development's location, current use and operation, and provides a review of accident data on roads near the development.
- **Section 4** sets out the accessibility of the site by sustainable transport.
- **Section 5** provides details of the development proposals.
- **Section 6** estimates the volume of traffic that could potentially be generated by the proposed development and assigns the traffic to the local highway network.
- **Section 7** set out the results of junction capacity assessments undertaken at junctions within the agreed study area.

1.2.2 The TA is summarised and concludes in **Section 8** which describes how the proposals adhere with current policy and guidance and sets out why there are no transport or highway reasons why the proposed development should not be approved.



2. National and Local Planning Policy

2.1 Introduction

2.1.1 This section of the TA reviews the relevant transport planning policy and guidance documents in the context of the proposed development by reference to the following documents. The Section has been updated from the original TA to incorporate the new National Planning Policy Framework which was issued on 24th July 2018:

- National Planning Policy Framework (2018);
- National Planning Practice Guidance (2014); and
- Copeland Local Plan 2013-2028 Core Strategy and Development Policies DPD (Adopted December 2013).

2.1.2 Subsequent sections of this report demonstrate that the proposals are consistent with the above documents.

2.2 National Planning Policy Framework (2018)

2.2.1 The Ministry of Housing, Communities and Local Government published the revised [National Planning Policy Framework](#) (NPPF) on 24 July 2018. This is the first revision of the NPPF since 2012.

2.2.2 At the heart of the NPPF is a presumption in favour of sustainable development. In this context, it is fundamental that for new development sustainable transport is promoted. Section 9 of the NPPF sets out policies for promoting sustainable transport. The key relevant policies for new development are set out below.

2.2.3 Paragraph 102 of the NPPF states:

'Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- a) the potential impacts of development on transport networks can be addressed;*
- b) opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*



- c) opportunities to promote walking, cycling and public transport use are identified and pursued;*
- d) the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- e) patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.'*

2.2.4 At paragraph 103 the NPPF states:

2.2.5 *'The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to reduce congestion and emissions, and improve air quality and public health. However, 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.'*

2.2.6 NPPF sets out a key test for the acceptability of planning applications in terms of transport and highway at paragraphs 108 and 109.

2.2.7 Paragraph 108 of the NPPF states that it should be ensured that:

- a) 'appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- b) safe and suitable access to the site can be achieved for all users; and*
- c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*

2.2.8 At paragraph 109 NPPF states that:

2.2.9 *'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*



2.3 National Planning Practice Guidance (2016)

2.3.1 The National Planning Practice Guidance (NPPG) web-based resource was published on 6 March 2014 by the Department for Communities and Local Government. This resource collates relevant planning practice guidance and provides links between the NPPF, relevant legislation and guidance.

2.3.2 In terms of transportation, the guidance on 'Travel Plans, Transport Assessments and Statements in Decision-Taking' is relevant to this application. The document essentially replaces the DFT's 'Guidance on Transport Assessment' (2007) and states in Paragraph 005 that:

'Transport Assessments and Transport Statements primarily focus on evaluating the potential transport impacts of a development proposal. (They may consider those impacts net of any reductions likely to arise from the implementation of a Travel Plan, though producing a Travel Plan is not always required). The Transport Assessment or Transport Statement may propose mitigation measures where these are necessary to avoid unacceptable or "severe" impacts. Travel Plans can play an effective role in taking forward those mitigation measures which relate to on-going occupation and operation of the development.'

2.3.3 Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be 'severe', which may be grounds for refusal, in accordance with the NPPF.

2.3.4 Paragraph 014 provides guidance on establishing the need and scope of a Transport Assessment or Statements. It states that:

'The need for, scale, scope and level of detail required of a Transport Assessment or Statement should be established as early in the development management process as possible as this may positively influence the overall nature or the detailed design of the development.'

2.4 Copeland Local Plan 2013-2028 Core Strategy and Development Management Policies DPD

2.4.1 The current development plan for the area in which the proposed development is located is the Copeland Local Plan which sets out the vision for development in Copeland between 2013 and 2018. The Core Strategy and Development Management Policies DPD sets out the development policy



framework for the area within that timeframe. The relevant transport policies from that document have been identified below:

Policy ST1 – Strategic Development Principles

2.4.2 The Strategic Development Principles that inform and underpin the Borough's planning policies that specifically related to transport, are:

a) Economic and Social Sustainability

b) Environmental Sustainability

vi) Minimise the need to travel, support the provision of sustainable transport infrastructure and measures that encourage its use.

vii) Prioritise development in the main towns where there is previously developed land and infrastructure capacity

c) Protect, enhance and restore the Borough's valued assets

d) Ensure the creation and retention of quality places

iii) Accommodate traffic and access arrangements in ways that make it safe and convenient for pedestrians and cyclists to move around

Planning applications that accord with these principles and relevant Development Management policies, and do not undermine the Spatial Development Strategy, will be approved without unnecessary delay, unless material considerations indicate otherwise.'

2.5 Compliance with Policy

2.5.1 Subsequent sections of this report describe the development proposals and surrounding existing facilities such as local services, pedestrian routes and existing public transport provision while also assessing the impact of the proposals on the local transport network. As will be shown, the development proposals comply with the guidelines and policies detailed above.



3. Existing Conditions

3.1 Introduction

- 3.1.1 This section describes the site location, existing land use, and local highway network, including the networks safety record close to the proposed development site. The Section incorporates the comments received by the LHA and HE on the original TA.

3.2 Site Location and Existing Land Use & Access

- 3.2.1 The proposed development site is in the eastern part of Whitehaven and is approximately 1.3km east of the town centre. The site encompasses several parcels of land that lie between Harras Road, Red Lonning and the A595 (Loop Road South). The site is currently used for agricultural land.
- 3.2.2 **Plan 1** shows the location of the site in the context of Whitehaven while **Plan 2** shows the location of the site in relation to the immediate local highway network.
- 3.2.3 The site is bounded by existing residential properties and green fields to the north-west, Harras Road to the north-east, Red Lonning and some industrial buildings to the east, existing residential properties to the south and a row of residential properties fronting onto the A595 (Loop Road South) to the south-west.
- 3.2.4 The statutory development plan for the site consists of the Core Strategy and Development Management Policies DPD (adopted in 2013) and saved policies from the Copeland Local Plan 2001-2016 (adopted in 2006). A large part of the site is identified in the plans as New Housing Allocations (Policy ST2). The remainder is unallocated land.
- 3.2.5 Vehicular access to the site is currently via Caldbeck Road with further points of access which take the form of 'five bar gate' style access points into the fields that form the site on Harras Road and the A595 (Loop Road South).

3.3 Local Highway Network

- 3.3.1 The local highway network near the site is shown on **Plan 2** and is briefly described in the following section.



Harras Road

- 3.3.2 Harras Road lies to the north-east of the site and forms part of the site's north-eastern frontage for approximately 150m. It is subject to a 30mph speed limit and the section that runs along the site frontage has a carriageway width of approximately 5.0m. A footway is present along the southern side of the carriageway which extends to the existing residential area. There is street lighting on the southern side of Harras Road. Approximately 75m east from the site's north-eastern boundary, Harras Road forms a priority junction with Red Lonning with Red Lonning forming the major arm of the junction.
- 3.3.3 As part of the approved application on the opposite side of Harras Road (application numbers 4/16/2415/001 and 4/16/2416/001), a site access junction is proposed to the development located around 30m to the west of this site's north-western boundary. The section of Harras Road adjacent to the site is to be widened to 6m, a footway provided on the northern side of the road, and a new pedestrian refuge island installed around 70m to the west of Harras Road's junction with Red Lonning.

Red Lonning

- 3.3.4 The site boundary also forms a frontage with Red Lonning along a 200m section of road just south of the access road to the industrial site and opposite Whitehaven Golf Course. Red Lonning provides a link to the A595, located around 2.6km to the north of the site. Red Lonning is subject to the national speed limit (60mph) adjacent to the site frontage. Further to the south, where Red Lonning travels southwards through a residential area the speed limit changes to 30mph and then to 20mph just before the road enters the residential area. There is a footway along the western edge of Red Lonning along the frontage of the site which is separated from the road by a verge. There is street lighting on Red Lonning near the site.

Caldbeck Road

- 3.3.5 Part of Caldbeck Road runs through the site and provides access to an existing residential area located just to the south of the site. The northern section of Caldbeck Road does not serve any development and forms a cul-de-sac within the eastern/central extent of the site with a formal turning head provided. The road is around 6m wide and has footways on both sides of the road and is subject to a 30mph speed limit. Street lighting is provided.
- 3.3.6 Caldbeck Road forms a priority junction with Red Lonning approximately 240m to the south-east of the site's southern-most frontage with Red Lonning forming the major arm of the junction.



The B5295

- 3.3.7 The B5295 runs (as Ennerdale Road/Leconfield St/Whitehaven Rd/Keekle Terrace/Cleator Moor Road) from the A5086 in Cleator Moor, approximately 5.5km to the south east of the site, north westwards for around 4.5km until it forms a mini roundabout junction with Moresby Road (approximately 500m south of the site). At this roundabout junction, the B5295 then runs as Main Street for a distance of approximately 650m south westwards until it forms another roundabout junction. At this junction, the B5295 separates and runs northwards as Ribton Moorside for approximately 340m and southwards as Egremont Road for approximately 670m before connecting with the A595 Hensingham Bypass. Ribton Moorside connects to the A595 at a three-arm signal-controlled junction while Egremont Road forms a four-arm roundabout with the A595.
- 3.3.8 Near the site, the road has footways on both sides of the road and has street lighting. There is formal on street car parking along sections of the road whilst in other places there are double yellow lines restricting parking. The road is subject to a 30mph speed limit near the site.

A595 Loop Road South

- 3.3.9 The proposed development site has a small frontage, approximately 12m long, with the A595 (Loop Road South) along the site's western boundary. The A595 forms part of the trunk road network and is therefore managed by HE rather than the LHA. Near the site, the A595 is around 7.5m wide has footways on both sides of the road and is subject to a 40mph speed limit. Street lighting is also provided.
- 3.3.10 The A595 is the primary vehicular route through Whitehaven and links Whitehaven to Sellafield and Barrow-in-Furness approximately 14km and 50km respectively to the south, and to Workington and Carlisle and the M6 approximately 8km and 55km to the north east.

Moresby Parks Road

- 3.3.11 Moresby Parks Road forms the north-western arm of the roundabout junction with Red Lonning and Moresby Road approximately 700m to the south east of the Red Lonning/Harras Road junction. The road travels northwards towards Distington and the A595 which is located approximately 6.6km to the north of its junction with Red Lonning. Near its junction with Red Lonning, Moresby Parks Road is subject to the national speed limit, is approximately 7.7m wide, has street lighting, and has a footway running along the eastern side of the road.



3.4 Personal Injury Accident Review

- 3.4.1 Following comments received from the LHA and HE on the original TA, the study area for the Personal Injury Accident (PIA) review has been expanded to cover an area approximately 4.3sqkm surrounding the site. An interrogation of the Crashmap website (www.crashmap.co.uk) has been undertaken to determine whether there are any accident issues/hotspots on the local highway network within the new study area. In addition to this website, Gateshead Council's accident database (which also covers Cumbria and provides more detail than crashmap), has been interrogated to see if there are any trends in accidents within the study area.
- 3.4.2 PIA data for the five-year period between 2013 and 2017 has been reviewed with **Figure B1** which is attached in **Appendix B** showing the location of recorded PIA's on the local highway network within the study area. The yellow flags indicate a 'slight' PIA, and red flags indicate a 'serious' PIA. During this timescale, there have been no fatal accidents.
- 3.4.3 In their comments, the LHA requested that, the following junctions should be reviewed in more detail due to the data showing a cluster of accidents at the junctions.
- Moresby Road/Red Lonning priority junction; and
 - B5295 Cleator Moor Road/Moresby Road Roundabout.
- 3.4.4 Additionally, HE has requested that key junctions on the Strategic Road Network (SRN) be examined. These include:
- A595/Ribton Moorside signalised junction;
 - A595/Highlands priority junction;
 - A595/B5295 Egremont Road/Homewood Road Roundabout;
 - A595/Rosehill priority junction;
 - A595/Victoria Road priority junction; and
 - A595/Inkerman Terrace signalised junction.
- 3.4.5 **Table 3.1** summarises the number and severity of PIAs within the study area and in particularly, at the junctions listed above. Extracts from Crashmap for areas where a cluster of PIAs can be seen are attached in **Figures B2 to B8** in **Appendix B**.



Table 3.1: Summary of PIAs within revised study area, 2013-2017

Junction	Severity			Total
	Slight	Serious	Fatal	
A595/B5295 Ribton Moorside	1	0	0	1
A595/Highlands	1	0	0	1
A595/B5295 Egremont Road/Homewood Road	4	1	0	5
A595/Rosehill	2	1	0	3
A595/Victoria Road	4	0	0	4
A595/A5094 Inkerman Terrace	6	1	0	7
Moresby Road/Red Lonning Priority Junction	5	0	0	5
B5295 Cleator Moor Road/Moresby Road/Main Street Roundabout	5	0	0	5
Harras Road (between A595 and Red Lonning)	2	1	0	3
Red Lonning (between Victoria Road and 25m northwest of Moresby Road)	6	0	0	6
Moresby Road (between 30m northeast of Red Lonning and Red Lonning/Moresby Road/Moresby Parks Road Roundabout)	4	0	0	4
Moresby Parks Road	1	1	0	2
A595 (between A5094 Inkerman Terrace and Victoria Road and north of Victoria Road)	5	0	0	5
A595 (north of Victoria Road)	2	0	0	2
Victoria Road	2	0	0	2
Oakbank Road	1	0	0	1
Main Street (between Cleator Moor/Moresby Road Roundabout and Egremont Road/Ribton Moorside Mini-Roundabout)	9	0	0	9
90m radius of Ribton Moorside/Main Street/Egremont Road Mini-Roundabout	3	1	0	4
Cleator Moor Road (between Moresby Road/Main Street Roundabout and Overend Road)	5	0	0	5
Other (i.e. Roads not likely to be affected by development traffic)	9	0	0	9
Total	77	6	0	83

3.4.6 **Table 3.1** shows that over the five-year study period, there was a total of 83 recorded PIAs. This can be further broken down to 77 'slight' PIAs and 6 'serious' PIAs. There were no fatal accidents recorded.

3.4.7 The nearest serious PIA to the Harras Road site access junction during the five-year study period occurred on Harras Road approximately 750m northwest of the proposed site access. There were no recorded PIAs at the junction of Caldbeck Road and Red Lonning that leads to the southern site access. The nearest PIA to this junction occurred approximately 45m north of the junction.



- 3.4.8 **Figure B1** shows that on the wider network, most of the PIA's that were recorded resulted in 'slight' injury although there are several clusters which are examined in more detail below.
- 3.4.9 A total of seven PIAs were recorded at the A595/B5295 Egremont Road/Homewood Road roundabout, of which six were recorded as 'slight' injury and one 'serious'. Of the six 'slight' PIAs, four were recorded near the southern arm of the roundabout. The one serious PIA occurred between the northwest and northern arms of the roundabout. The serious PIA resulted in one casualty, which was the car occupant aged between 71 and 75. There have been accidents involving car occupants, pedestrians and motorcyclists at the roundabout although these haven't been frequent enough to suggest any highway design issue. An extract from Crashmap for this roundabout is shown in **Figure B2**.
- 3.4.10 A cluster of PIAs can also be seen on the B5295 Main Street to the south of the site. This is shown in more detail in **Figure B3**. All the recorded PIAs in this cluster were classified as slight and none occurred at the same location.
- 3.4.11 **Figure B4** shows PIAs that have occurred along Cleator Moor Road between the Moresby Road/Main Street roundabout and Overend Road during the five-year study period. In their comments, the LHA stated that accidents were occurring near the access/egress junction to Whitehaven Academy. Whilst this is partially correct, the location of these PIAs would suggest that they are more towards Queens Close. This said, only two accidents have occurred at this junction across the five-year study period and as such, this low frequency of accidents is not enough to suggest an untypical highway safety issue. All the PIAs recorded in this cluster were classified as slight. Other than most casualties being single car occupants, there appears to be no other trends.
- 3.4.12 The A595/Rosehill priority junction has a small cluster of PIAs associated with it and these can be seen in **Figure B5**. Out of the four recorded PIAs, one was recorded as serious and involved two vehicles and resulted in injury to two car occupants, one aged 16-20 and one aged 61-65. However, again, there are no obvious trends in PIAs at this junction.
- 3.4.13 In summary, due to the infrequency of serious accidents across the study area and with the closest PIA occurring some distance away from the site (approximately 750m northwest of the proposed site access on Harras Road), it is considered that there are no typical highway safety issues near the site which should preclude the development of the site. Furthermore, although there have been 83 recorded PIA's within the study area over the five-year period, the study area covers a large area (approximately 4.27sqkm) and includes the A595, a trunk road, and primary vehicular route through Whitehaven.



3.4.14 Overall therefore, it is considered that the road network surrounding the site has a relatively good safety record and based on the above analysis, highway safety is not considered to be a barrier to development of the site.



4. Sustainable Transport

4.1 Introduction

- 4.1.1 This section considers pedestrian and cycle links and the provision of public transport within the surrounding area of the proposed development site. The Section has been updated to take account of comments received from the LHA.

4.2 Pedestrian Accessibility

- 4.2.1 It is generally accepted that walking is the most important mode of travel at a local level and that 2km is a distance that people are prepared to walk to access an amenity/facility. Reference to the 2km walk distance was made in the now superseded Planning Policy Guidance (PPG) Note 13 which advised that 'walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km'.
- 4.2.2 Manual for Streets (MfS) continues the theme of the acceptability of the 2km walk distance in paragraph 4.4.1 which states that '*walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPS13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km'.*
- 4.2.3 2km is also the Institution for Highways and Transportation (IHT) guidance preferred maximum suggested walking distance to schools and for commuting.
- 4.2.4 **Plan 3** has been prepared which shows the 2km walking catchment from the centre of the site. In addition, in line with the requirements of the LHA, the 800m and 1200m walking catchments have also been added. The 800m and 1200m catchments correspond to the acceptable and preferred maximum suggested walking distances set out in the IHT's publication 'Guidelines for Providing for Journeys on Foot' (2000).
- 4.2.5 **Plan 3** shows that the Site's 800m walk catchment includes St Benedicts RC High School; the Funhouse softplay kid's entertainment centre; and Whitehaven Golf Club. **Plan 3** shows that the Site's 1200m walking catchment also includes Jericho Primary School and that there are numerous amenities and facilities that are located just outside the site's 1200m walking catchment including Mayfield School; a convenience store; and numerous employment opportunities. **Plan 3** also shows that Whitehaven town centre is also located just outside the site's 1200m walking catchment.



4.2.6 **Plan 3** shows that most Whitehaven town centre falls within the 2km catchment of the site resulting in a wide range of amenities and facilities being within a reasonable walking distance of the site. These include:

- Various employment opportunities, including within Whitehaven town centre and those around the Cleator Moor Road / Main St junction.
- A Morrisons supermarket on the edge of Whitehaven town centre and a Spar convenience store on Richmond Hill Road to the south of the site. There are further retail stores including supermarkets such as Asda and Iceland located just outside the 2km walking catchment of the site.
- Five Primary Schools.
- A further secondary school.
- Mayfield School a Physical & Sensory Specialist School.
- Several places of worship.
- Four GP surgeries.
- Two pharmacies.
- A Bank.
- A Post Office.
- Whitehaven Sports Centre.
- A library.
- A wide range of bars and restaurants, particularly in Whitehaven town centre.

4.2.7 In addition to the above, further employment opportunities and amenities are located at the Bridge Retail Park located to the south of the A5094. A Morrisons supermarket, a McDonalds restaurant, a Doctors Surgery plus other amenities are located here.

4.2.8 The pedestrian network near the site is good with footways and street lighting present along roads to local schools, employment and other amenities. The development proposals include the provision of a pedestrian link to the A595 Loop Road South and potential pedestrian links to the industrial estate road and Winchester Drive from the eastern boundary of the site, Highfields and High Grove from the western boundary of the site and potentially to Laurel Bank and Highlands from the north-western boundary of the site. The potential to provide these pedestrian connections will be studied in further detail as part of the future reserved matters applications for the site.



4.3 Accessibility by Cycle

- 4.3.1 It is generally accepted that cycling has the greatest potential to substitute for short car trips, particularly those less than 5km and to form part of a longer journey by public transport. A 5km catchment of the site has been prepared and is shown on **Plan 4**.
- 4.3.2 **Plan 4** shows that the whole of Whitehaven and surrounding villages such as Parton, Moresby parks and a large part of Cleator Moor fall within the 5km cycle catchment. This results in a wide range of amenities and facilities including retail, employment, educational and leisure facilities being located within acceptable cycling distance of the site.
- 4.3.3 **Plan 4** also shows that National Route 72 of the National Cycle Network (NCN), which starts in Kendal and makes its way around the Cumbrian coast via Barrow-in-Furness and Whitehaven to Silloth, runs south/north into Whitehaven town center relatively close to the site. The route, which is largely traffic free in this area is located around 1km to the west of the site's western boundary. National Route 71 of the NCN runs from National Route 72 to the west, in a northeast direction. The route runs approximately 2.3km to the south of the site. National Route 71 makes up the western third of the C2C route between Whitehaven or Workington and Blencow (Penrith).

4.4 Accessibility by Public Transport

Accessibility by Bus

- 4.4.1 A 400m walk distance is generally considered to be a reasonable walk distance between a development and bus stops. This distance is quoted in the 'IHT's - Guidelines for the Planning of Public Transport for Development'. However, this is only guidance to be achieved where possible with the document stating that it is more important to provide bus services which are easy and attractive to passengers rather than to '*slavishly adhere to arbitrary criteria for walking distances*'. (Paragraph 5.18, Page 73)
- 4.4.2 The location of local bus stops are shown on **Plan 2** which shows that the closest bus stops to the site are located on Caldbeck Road, approximately a 700m (approx. 8min) walk away from the centre of the site. Additional bus stops are located on Hillcrest Avenue in the housing estate that sits to the south of the site which are hail and ride type stops. Further bus stops are located on the A595 just south of Springfield Avenue. There are no bus stops on Harras Road which runs along the northern extent of the site.



- 4.4.3 All stops mentioned above are served by the 31-bus service, the frequency of which is summarised in **Table 4.1**.

Table 4.1: Summary of Bus Services

Service Number	Route	One-way Frequency Per Hour				
		Monday to Saturday				Sunday
		AM Peak	Inter- peak	PM Peak	Evening	
Services on Caldbeck Road, Hillcrest Avenue and the A595						
31 Stagecoach	Maryport – Flimby – Siddick – Workington – Moorclose – Westfield – Moss Bay – High Harrington – Distington – Whitehaven – Corkickle – Hensingham – Cleator Moor – Frizination - Asby	2	2	2	0	0

- 4.4.4 **Table 4.1** shows that the 31 service provides 2 one-way services per hour in the weekday AM, interpeak and PM peak periods, as well as on Saturdays. The service offers connections to several destinations including Maryport, Workington, Whitehaven, Corkickle and Asby.

Accessibility by Rail

- 4.4.5 The nearest rail station to the site is Corkickle Rail Station which is located approximately 1.6km (20-minute walk) from the site. Corkickle Rail Station provides frequent rail services to Barrow-in-Furness, Carlisle and Lancaster. Whitehaven can also be accessed from the station using northbound trains to Carlisle.

4.5 Accessibility Summary

- 4.5.1 The site is located within an acceptable walking distance of several important amenities and facilities. Whitehaven town centre, where a wide range of leisure, employment and retail facilities are located can be reached within a 2km walk of the site. It is anticipated that most everyday journeys to local amenities could be made on foot, thus minimising the need for travel by car. Therefore, the site is sustainable for pedestrian journeys.
- 4.5.2 The site is well located to encourage trips by cycle. A range of important local employment, leisure, retail, education and health facilities can be reached within an acceptable 5km cycle of the site, including those within Whitehaven town centre and in Corkickle, Woodhouse, Minhouse and Cleator Moor. As such, the site is accessible by cycle.



- 4.5.3 The site is served by a regular bus service which provides connectivity to areas surrounding the site, including Whitehaven town centre. The service can be caught within a 700m (8 minute) walk of the centre of the site and has a half hourly frequency on weekdays and Saturdays.
- 4.5.4 Corkickle Rail Station provides frequent rail services to Barrow in Furness, Carlisle and Lancaster and is located within a reasonable walk distance of the site.
- 4.5.5 It has been demonstrated that a wide range of local amenities and facilities can be accessed on foot, by cycle and by public transport. Accordingly, it is evident that the site is accessible by sustainable travel modes in compliance with national and local policy.
- 4.5.6 Furthermore, planning permission has recently been given for a 110 dwelling residential development on the northern side of Harras Road, to the north of this proposed development (application numbers 4/16/2415/001 and 4/16/2416/001). The approved development is further away from Whitehaven town centre and is not as accessible to as many local amenities and facilities as the proposed development is.



5. Development Proposals

5.1 Introduction

- 5.1.1 This section describes the proposed development including vehicular and pedestrian access provision.

5.2 Proposed Development

- 5.2.1 The proposals comprise the development of up to 370 residential dwellings on a site located east of Whitehaven town centre on land south of Harras Road. Vehicular access is to be provided from Caldbeck Avenue and Harras Road. An illustrative masterplan for the site showing the potential internal road network along with potential points of access has been developed and is attached in **Appendix B**.
- 5.2.2 The site's internal layout design will be based on Manual for Street's (MfS) principles. Direct access to individual dwellings will be provided from roads within the site which will contribute to a reduced speed environment since circulating drivers will need to be aware of driveway turning movements. Given the low speed environment within the site, cyclists will generally be able to cycle on carriageways.
- 5.2.3 Where cul-de-sacs are provided, these will be of an appropriate length to satisfy bin carry distance requirements set out in MfS and/or turning heads of appropriate geometry to accommodate service vehicle manoeuvring will be provided.
- 5.2.4 It is proposed that, on all but the minor roads within the proposed development, footways will be provided on both sides of the carriageway which will link to existing footways on the external highway network. On some minor roads, a 'shared surface' principle could apply.

5.3 Access Arrangements

- 5.3.1 There is currently only one formal vehicular access point into the site which is via Caldbeck Road which currently forms a cul-de-sac within the southern extent of the site. In addition, there are gated farm access points on Harras Road and the A595 (Loop Road South).
- 5.3.2 During the preparation of this report, discussions have been held with the LHA to obtain its views on accessing the site. Relevant email correspondence from these discussions are attached in **Appendix A**. During the discussions' the Highway Officer stated that at least two access points will need to be provided. As a result, vehicular access to the proposed development site is proposed via Caldbeck



Road by extending the current road into the site, and via a new access junction on Harras Road on the north-eastern boundary of the site.

- 5.3.3 The proposed Harras Road site access junction is shown in drawing A090070-P002 attached in **Appendix B**. The drawing shows a simple priority-controlled site access junction with a 5.5m wide access road leading into the site. 2m wide footways will be provided on both sides of the access road which will connect to the existing footways on Harras Road.
- 5.3.4 To inform the design and location of the proposed Harras Road site access junction, an Automated Traffic Count (ATC) survey along Harras Road was commissioned and undertaken for a week in February 2017. The survey, which is attached in **Appendix C**, showed that 85th percentile vehicle speeds on Harras Road near the site were 40.7mph (eastbound) and 40.8 (westbound). These speeds are higher than the 30mph speed limit along this stretch of Harras Road.
- 5.3.5 However, the provision of this residential development along with the approved residential development on the opposite side of Harras Road will result in the extension of the 'urban' nature of Harras Road which in turn is likely to result in reduced vehicle speeds along the site boundary.
- 5.3.6 Nevertheless, visibility splays required at the junction have been determined based on the above observed 85th percentile vehicle speeds and based on MfS parameters. This shows that visibility splays of 63m are required at the junction. Drawing number A090070-P002 shows that visibility splays of this magnitude can easily be achieved.
- 5.3.7 In terms of pedestrian access, this will be provided at both vehicular site access junctions where pedestrian footways will be provided along both sides of the access road which will link into existing footways. In addition, the development proposals include for the provision of a pedestrian link to the A595 Loop Road South from the south-western boundary of the site and also potential pedestrian links to the industrial estate road and Winchester Drive from the eastern boundary of the site, Highfields and High Grove from the western boundary of the site, and potentially to Laurel Bank and Highlands from the north-western boundary of the site. The potential to provide these pedestrian connections will be studied in further detail as part of the future reserved matters applications for the site.



6. Existing and Future Traffic Flows

6.1 Background

- 6.1.1 As part of the initial scoping discussions with the LHA and HE prior to the issue of the original TA, a Technical Note 1 (TN1), dated 17th January 2018 was prepared by WYG to provide the information on the potential trip generation and distribution of the proposed development. The aim of the note was also to enable the extent of junction capacity assessments to be agreed with the LHA and HE.
- 6.1.2 Following submission of TN1, the LHA and HE both provided comments on the proposed trip generation and distribution and these comments were incorporated into the TA. TN1 and the LHA and HE responses to TN1 are attached in **Appendix A**.
- 6.1.3 Following submission of the TA, both the LHA and HE provided a number of additional comments on traffic flows and the year of assessment used in the TA and as a result, this section has been updated to take account of these additional comments.
- 6.1.4 Based on the comments received from the LHA and HE, the following junctions have been considered as part of this report.
- J1: Harras Road/Site Access Priority Junction
 - J2: Harras Road/Red Lonning Priority Junction
 - J3: Red Lonning/Caldbeck Road Priority Junction
 - J4: Red Lonning/Moresby Road Roundabout
 - J5: Moreby Road/Cleator Moor Road/Main Street Mini-Roundabout
 - J6: Main Street/Thornton Road Priority Junction
 - J7: A595/B5295 Ribton Moorside Signal Junction
 - J8: A595/Highlands Priority Junction
 - J9: A595/B5295 Egremont Road / Homewood Road Roundabout
 - J10: A595/Rosehill Priority Junction
 - J11: A595/Victoria Road (Sunny Hill Pub) Priority Junction
 - J12: Moresby Road/Unnamed Road Priority Junction
 - J13: B5295/Main Street Mini-Roundabout
 - J14: A595/Inkerman Terrace Signal Junction
 - J15: Solway View/Oakbank Road/Park View Priority Junction



6.2 Existing Traffic Flows

- 6.2.1 To determine existing traffic flows at the above junctions, traffic count surveys were undertaken on Wednesday 21st February 2018 by MHC Traffic between 07:30 and 09:30 hours in the morning and 15:45 and 18:15 hours in the afternoon/evening. The survey data is attached in **Appendix C**.
- 6.2.2 From analysis of the surveyed flows, the weekday peak hours on the local highway network were found to be between 08:00-09:00 hours during the weekday morning peak and between 16:15-17:15 hours during the weekday evening peak.
- 6.2.3 The 2018 surveyed weekday AM and PM peak hour flows converted into passenger car units (pcu's) are illustrated in **Figures 1** and **2** respectively.

6.3 Background Traffic Growth

- 6.3.1 As requested by both the LHA and HE post submission of the original TA, the 2018 surveyed traffic flows have been factored to an assessment year 2023 (application year + 5 years) and 2028 (application year + 10 years) by using TEMPRO growth factors adjusted by NTM (National Traffic Model) for 'Copeland 003 Area', where the site is located.
- 6.3.2 The resultant growth factors are summarised in **Table 6.1** below.

Table 6.1: TEMPRO Growth Factors Adjusted by NTM

Period	AM Peak	PM Peak
2018-2023	1.0554	1.0516
2018-2028	1.0908	1.0853

- 6.3.3 The growth factors listed in **Table 6.1** have been applied to the 2018 surveyed traffic flows shown in **Figures 1** and **2** to derive 2023 and 2028 growthed surveyed traffic flows. These are shown in **Figures 3** to **6** for the weekday AM and PM peaks respectively.

6.4 Committed Development Traffic

- 6.4.1 The consented residential development on land off Harras Road opposite to this site (application ref: 4/16/2416/001 and 4/16/2415/001), which is for 110 dwellings, has been considered as committed development.



- 6.4.2 The weekday AM and PM peak committed development traffic flows for this consented development have been obtained from the relevant TA and are reproduced in **Figures 7** and **8**.

6.5 Future Year Baseline Flows

- 6.5.1 The committed development traffic flows shown in **Figures 7** and **8** have been added to the 2023 growthed surveyed traffic flows shown in **Figures 3** to **6** to derive 2023 and 2028 baseline traffic flows (i.e. without the proposed development). These are shown in **Figures 9** and **12** for the weekday AM and PM peaks respectively.

6.6 Vehicular Trip Generation of the Proposed Development

- 6.6.1 During the scoping discussions' the LHA and HE confirmed that the trip rates set out in WYG TN1 are acceptable. The agreed trip rates are summarised in **Table 6.2** together with the resultant trip generation. **Table 6.2** and the following traffic impact assessment/junction capacity assessments have been undertaken assuming a development of 380 dwellings. This is 10 dwellings higher than that proposed in the application. The trip generation and junction assessments are therefore considered to be robust.

Table 6.2: Approved Trip Rates and Resultant Trip Generation of the Proposals

Proposed Land Use	Unit	AM Peak Hour			PM Peak Hour		
		Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
Trip Rates							
C3 Houses Privately Owned	Dwelling	0.156	0.437	0.593	0.381	0.198	0.579
Trip Generations							
C3 Houses Privately Owned	380 (Dwelling)	59	166	225	145	75	220

- 6.6.2 **Table 6.2** shows that, a development of 380 dwellings (10 higher than the application) is forecast to generate around 225 additional two-way vehicular movements during the weekday AM peak hour and 220 two-way vehicular movements during the weekday PM peak hour.

6.7 Trip Distribution

- 6.7.1 A trip distribution was derived using 2011 Census 'journey to work' data and summarised in WYG's TN1 (dated 17th January 2018). HE confirmed that the trip distribution set out in TN1 was acceptable, however, a number of comments were received from the LHA.



- 6.7.2 The LHA's comments on the trip distribution are contained in **Appendix D** together with our response to these setting out how the LHA's comments have been considered in deriving the final development trip distribution.
- 6.7.3 The trip distribution incorporating the amendments resulting from the LHA's comments is attached in **Appendix D**, which also contains the full trip distribution analysis and a 'Distribution Plan'. The resultant trip distribution is also shown in **Figure 13**.
- 6.7.4 The number of trips estimated to be generated by the proposed development (shown in **Table 6.2**) have been assigned onto the local highway network using the distribution shown in **Figure 13**. The resulting development trips assigned to the local highway network during the weekday AM and PM peak periods are shown in **Figures 14** and **15** respectively.

6.8 Future Years Assessment Flows

- 6.8.1 To derive the future year assessment flows (i.e. 2023 with development) the development trip generation flows shown in **Figures 14** and **15** have been added to the 2023 and 2028 baseline flows shown in **Figures 9** to **12**. The resultant 2023 and 2028 assessment flows (i.e. with the proposed development) for the weekday AM and PM peak periods are shown in **Figures 16** and **19** respectively.



7. Traffic Impact Assessment

7.1 Background

7.1.1 This section of the report summarises the capacity assessments undertaken for the 14 off-site junctions listed in **Section 6.1** as agreed with the LHA and HE along with the site access proposed on Harras Road.

7.1.2 The priority junctions and roundabouts have been assessed using the JUNCTIONS 9 analysis software. The key operational output parameters of JUNCTIONS 9 are:

- The ratio of flow to capacity (RFC), in which RFC values of less than 1.0 indicate the junction is operating within its ultimate capacity;
- End queues in vehicles, which indicates the forecast length of traffic queues; and,
- Average delays in seconds per vehicle.

7.1.3 The signalised junctions have been assessed using the LinSig software. The key output operational parameters of LinSig are:

- Degree of saturation (DoS), where DoS values less than 100% indicate the junction is operating within its ultimate capacity;
- The maximum mean queue (MMQ) forecast on a link; and,
- Average delays in seconds per vehicle.

7.1.4 All the junction capacity models prepared for the above off-site junctions have been validated based on queue survey data to ensure that the models reflect the junction's current operational performance.

7.2 J1: Harras Road/Site Access Priority Junction

7.2.1 A site access junction is proposed off Harras Road. The proposed layout of the junction is shown in drawing number A090070-P002 attached in **Appendix C**. The capacity of the proposed junction has been assessed using the derived 2023 and 2028 with development traffic flows shown in **Figures 16 to 19** with the results summarised in **Table 7.1** and **Table 7.2**. Full JUNCTIONS 9 are contained in **Appendix E**.



Table 7.1: Capacity Assessment for 2023 Assessment Flows (J1)

Link Description	2023 With Development			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Site Access	0.210	0	0.100	0
Harras Rd (W)	0.030	0	0.090	0

Table 7.2: Capacity Assessment for 2028 Assessment Flows (J1)

Link Description	2028 With Development			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Site Access	0.210	0	0.100	0
Harras Rd (W)	0.030	0	0.090	0

7.2.2 **Table 7.1** and **Table 7.2** confirm that the junction is forecast to operate well within capacity in both the weekday morning and evening peak hours in the 2023 and 2028 assessment years with no queuing.

7.3 J2: Harras Road/Red Lonning Priority Junction

7.3.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.3.2 **Table 7.3** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.4** and **Table 7.5** summarise the results for 2023 and 2028 without and with the proposed development. Full JUNCTIONS 9 outputs are contained in **Appendix F**.

Table 7.3: Capacity Assessment for 2018 Surveyed Flows (J2)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Harras Rd - Left Turn	0.010	0	0.040	0
Harras Rd - Right Turn	0.210	0	0.340	1
Red Lonning (N)	0.010	0	0.070	0

Table 7.4: Capacity Assessment for 2023 Assessment Flows (J2)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Harras Rd - Left Turn	0.020	0	0.030	0	0	0.050	0	0.050	0	0
Harras Rd - Right Turn	0.310	1	0.410	1	0	0.400	1	0.450	1	0
Red Lonning (N)	0.010	0	0.020	0	0	0.080	0	0.100	0	0
Average Jun. Delay (s/pcu)	1.64		2.36		-	2.52		2.94		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.7		-	+		0.4		-

Table 7.5: Capacity Assessment for 2028 Assessment Flows (J2)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Harras Rd - Left Turn	0.020	0	0.030	0	0	0.050	0	0.060	0	0
Harras Rd - Right Turn	0.330	1	0.420	1	0	0.420	1	0.470	1	0
Red Lonning (N)	0.010	0	0.020	0	0	0.090	0	0.110	0	0
Average Jun. Delay (s/pcu)	1.68		2.40		-	2.62		3.08		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.7		-	+		0.5		-

7.3.3 **Table 7.3** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.3.4 **Table 7.4** and **Table 7.5** show that the junction is forecast to still operate well within its capacity in both the weekday AM and PM peak hours in 2023 and 2028 even with the addition of the proposed development traffic. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.4 J3: Red Lonning/Caldbeck Road Priority Junction

7.4.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.4.2 **Table 7.6** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.7** and **Table 7.8** summarise the results for 2023 and 2028 without and with the proposed development. Full JUNCTIONS 9 outputs are contained in **Appendix G**.

Table 7.6: Capacity Assessment for 2018 Surveyed Flows (J3)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Caldbeck Rd	0.250	0	0.180	0
Red Lonning (N)	0.240	0	0.190	0

Table 7.7: Capacity Assessment for 2023 Assessment Flows (J3)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Caldbeck Rd	0.260	0	0.440	1	0	0.190	0	0.260	0	0
Red Lonning (N)	0.260	0	0.260	0	0	0.200	0	0.210	0	0
Average Jun. Delay (s/pcu)	4.23		6.01		-	3.39		3.70		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.78		-	+		0.31		-

Table 7.8: Capacity Assessment for 2028 Assessment Flows (J3)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Caldbeck Rd	0.270	0	0.450	1	1	0.190	0	0.270	0	0
Red Lonning (N)	0.270	0	0.270	0	0	0.210	0	0.220	0	0
Average Jun. Delay (s/pcu)	4.30		6.13		-	3.43		3.77		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.83		-	+		0.34		-

7.4.3 **Table 7.6** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.4.4 **Table 7.7** and **Table 7.8** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the proposed development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.5 J4: Red Lonning/Moresby Road Roundabout

7.5.1 This junction currently operates as a roundabout junction and has therefore been modelled using JUNCTIONS 9.

7.5.2 **Table 7.9** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.10** and **Table 7.11** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix H**.

Table 7.9: Capacity Assessment for 2018 Surveyed Flows (J4)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Moresby Parks Rd (N)	0.240	0	0.180	0
Access to Field	0.000	0	0.000	0
Moresby Parks Rd (S)	0.250	0	0.440	1
Red Lonning	0.220	0	0.230	0

Table 7.10: Capacity Assessment for 2023 Assessment Flows (J4)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Moresby Parks Rd (N)	0.270	0	0.270	0	0	0.200	0	0.200	0	0
Access to Field	0.000	0	0.000	0	0	0.000	0	0.000	0	0
Moresby Parks Rd (S)	0.270	0	0.280	0	0	0.470	1	0.490	1	0
Red Lonning	0.270	0	0.290	0	0	0.250	0	0.270	0	0
Average Jun. Delay (s/pcu)	3.14		3.22		-	3.63		3.75		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.08		-	+		0.12		-

Table 7.11: Capacity Assessment for 2028 Assessment Flows (J4)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Moresby Parks Rd (N)	0.280	0	0.280	0	0	0.200	0	0.210	0	0
Access to Field	0.000	0	0.000	0	0	0.000	0	0.000	0	0
Moresby Parks Rd (S)	0.280	0	0.280	0	0	0.490	1	0.510	1	0
Red Lonning	0.270	0	0.300	1	0	0.260	0	0.280	0	0
Average Jun. Delay (s/pcu)	3.19		3.27		-	3.72		3.84		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.08		-	+		0.12		-

7.5.3 **Table 7.9** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.



7.5.4 **Table 7.10** and **Table 7.11** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the proposed development. The table shows that the impact of the proposals on the operation of the junction is negligible.

7.6 J5: Moresby Road/Cleator Moor Road/Main Street Mini Roundabout

7.6.1 This junction currently operates as a mini roundabout junction and has therefore been modelled using JUNCTIONS 9.

7.6.2 As requested by HE, a one-hour traffic flow profile has been applied to the junction model instead of the direct input used in the original TA.

7.6.3 **Table 7.12** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.13** and **Table 7.14** summarise the results for 2023 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix I**.

Table 7.12: Capacity Assessment for 2018 Surveyed Flows (J5)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Moresby Parks Rd	0.740	3	0.840	5
Cleator Moor Rd	0.820	5	1.030	26
Main St	0.690	2	0.760	3

Table 7.13: Capacity Assessment for 2023 Assessment Flows (J5)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Moresby Parks Rd	0.830	5	0.970	15	10	0.900	8	0.970	14	6
Cleator Moor Rd	0.900	8	0.980	15	7	1.110	51	1.160	67	16
Main St	0.740	3	0.780	4	1	0.810	4	0.910	8	4
Average Jun. Delay (s/pcu)	29.58		59.43		-	101.63		146.98		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		29.9		-	+		45.4		-



Table 7.14: Capacity Assessment for 2028 Assessment Flows (J5)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Moresby Parks Rd	0.860	6	1.000	20	14	0.940	10	1.010	20	10
Cleator Moor Rd	0.940	10	1.010	21	10	1.150	66	1.200	82	16
Main St	0.770	3	0.810	4	1	0.840	5	0.940	10	6
Average Jun. Delay (s/pcu)	37.11		75.88		-	135.85		192.83		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		38.8		-	+		57.0		-

- 7.6.4 **Table 7.12** indicates that the existing junction is currently operating within capacity in the weekday AM peak hour but is operating at above its capacity during the weekday PM peak hour on the Cleator Moor Road arm of the junction only.
- 7.6.5 **Table 7.13** shows that in the future assessment year 2023, the junction is still forecast to operate within capacity during the AM peak hour even with the addition of the development. However, during the PM peak period, the junction is forecast to operate over capacity under both 'without' and 'with' development scenarios on the Cleator Moor Road arm of the junction. All other arms of the junction are forecast to operate at below their capacity even with the addition of the development.
- 7.6.6 **Table 7.14** shows that in the future assessment year 2028, the junction is forecast to operate at just below its capacity in the AM peak period without the development but just above its capacity on the Cleator Moor Road arm of the junction during the same peak period with the development. During the 2028 PM peak period, the table shows that the junction is forecast to operate above its capacity even without the development.
- 7.6.7 Although the junction is operating at over its capacity in the future and the additional traffic generated by the proposed development adds to the queue length and additional delay experienced by drivers, the impact of the development on the junction is not considered to be significant or severe in NPPF terms.
- 7.6.8 In this regard there are several recent Inquiry decisions which assist in understanding how the Secretary of State and Inspectors have viewed the NPPF threshold test of "severity". Specifically, two decisions which were allowed following a Public Inquiry where junctions were operating at above their capacity include:
- Hartford, Cheshire - (ref: APP/A0665/A/12/2179410 & 2179374)
 - Collingwood Way, Westhoughton, Bolton – (ref: APP/N4205/W/17/3167848)



- 7.6.9 In both cases, junctions assessed as part of the transport assessments were operating well above their ultimate capacity of 100% and yet no improvements were required. For example, in the case of the Hartford appeal, in the PM peak hour for the 'without' development scenario the maximum DoS and queue were 114.8% and 51 vehicles respectively while for the 'with' development scenario, the maximum DoS was 136.9% and the maximum queue was 100 vehicles. This is an increase in DoS and queue length of 22.1% and 49 vehicles respectively which is much higher than is the case for the proposed residential development at Harras Moor.
- 7.6.10 It is therefore evident from the above appeals that the threshold for considering mitigation to increase highway capacity at peak periods in the NPPF has been set above the impact which is identified for this case.
- 7.6.11 It is also worth noting that the 2028 assessment (10 years after the application year) is not normally a requirement at a junction which is not located on the strategic road network.

7.7 J6: Main Street/Thornton Road Priority Junction

- 7.7.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.
- 7.7.2 **Table 7.15** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.16** and **Table 7.17** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix J**.

Table 7.15: Capacity Assessment for 2018 Surveyed Flows (J6)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Thornton Rd - Left Turn	0.230	0	0.210	0
Thornton Rd - Right Turn	0.340	1	0.220	0
B5295 Main St (N)	0.180	1	0.260	1



Table 7.16: Capacity Assessment for 2023 Assessment Flows (J6)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Thornton Rd - Left	0.250	0	0.260	0	0	0.230	0	0.240	0	0
Thornton Rd - Right	0.380	1	0.410	1	0	0.240	0	0.260	0	0
B5295 Main St (N)	0.200	1	0.220	1	0	0.280	1	0.310	1	0
Average Jun. Delay (s/pcu)	2.85		2.90		-	2.47		2.49		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.05		-	+		0.02		-

Table 7.17: Capacity Assessment for 2028 Assessment Flows (J6)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Thornton Rd - Left	0.260	0	0.280	0	0	0.240	0	0.250	0	0
Thornton Rd - Right	0.410	1	0.440	1	0	0.250	0	0.280	0	0
B5295 Main St (N)	0.210	1	0.230	1	0	0.300	1	0.320	1	0
Average Jun. Delay (s/pcu)	3.03		3.12		-	2.57		2.61		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.09		-	+		0.04		-

7.7.3 **Table 7.15** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.7.4 **Table 7.16** and **Table 7.17** show that the junction is forecast to operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.8 J7: A595/B5295 Ribton Moorside Signal Junction

7.8.1 This junction currently operates as a signal-controlled junction and has therefore been modelled using LinSig. Existing signal timing data has been obtained from HE to ensure the correct modelling parameters are used when assessing the operation of the junction. Because of the close association with junction 14, the A595/Inkerman Terrace signal junction, the two junctions have been modelled together.

7.8.2 **Table 7.18** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.19** and **Table 7.20** summarise the results for 2023 and 2028 without and with the development

for the A595/B5295 Ribton Moorside Signal Junction only. Full LinSig outputs are contained in **Appendix K**.

Table 7.18: Capacity Assessment for 2018 Surveyed Flows (J7)

Approach	2018 Surveyed Year			
	AM Peak		PM Peak	
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)
Ribton Moorside	69.9%	11	74.7%	11
A595 Loop Rd (NB) Ahead	29.3%	5	32.6%	6
A595 Loop Rd (NB) Ahead Right	69.3%	10	64.4%	13
Hensingham Bypass (SB) Left	33.4%	0	49.3%	1
Hensingham Bypass (SB) Ahead	68.6%	16	58.6%	10

Table 7.19: Capacity Assessment for 2023 Assessment Flows (J7)

Approach	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)
Ribton Moorside	76.2%	12	77.7%	13	1	79.8%	14	80.8%	14	0
A595 Loop Rd (NB) Ahead	30.3%	5	30.6%	5	0	32.9%	7	33.1%	7	0
A595 Loop Rd (NB) Ahead Right	76.0%	11	76.0%	11	0	68.1%	16	67.8%	16	0
Hensingham Bypass (SB) Left	35.4%	0	35.8%	0	0	51.8%	1	52.9%	1	0
Hensingham Bypass (SB) Ahead	71.2%	17	71.3%	17	0	59.1%	14	59.3%	14	0
Average Jun. Delay (s/pcu)	25.7		25.9		-	21.9		22.0		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.2		-	+		0.1		-

Table 7.20: Capacity Assessment for 2028 Assessment Flows (J7)

Approach	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)
Ribton Moorside	78.9%	13	80.3%	14	1	82.2%	15	83.3%	15	0
A595 Loop Rd (NB) Ahead	31.3%	5	31.6%	5	0	33.9%	7	34.1%	7	0
A595 Loop Rd (NB) Ahead Right	81.7%	12	85.2%	13	1	71.7%	17	71.4%	17	0
Hensingham Bypass (SB) Left	36.5%	0	36.9%	0	0	53.5%	1	54.6%	1	0
Hensingham Bypass (SB) Ahead	73.5%	18	73.6%	18	0	60.9%	14	61.1%	14	0
Average Jun. Delay (s/pcu)	27.3		28.6		-	22.8		23.0		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.3		-	+		0.2		-

7.8.3 **Table 7.18** shows that the junction currently operates within capacity in both the weekday AM and PM peak hours.

7.8.4 **Table 7.19** and **Table 7.20** show that the junction is still forecast to operate within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The table shows that the impact of the proposals on the operation of the junction is negligible.

7.9 J8: A595/Highlands Priority Junction

7.9.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.9.2 **Table 7.21** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.22** and **Table 7.23** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix L**.

Table 7.21: Capacity Assessment for 2018 Surveyed Flows (J8)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Highlands - Left Turn	0.210	0	0.110	0
Highlands - Right Turn	0.330	1	0.200	0
A595 (S)	0.100	0	0.400	2

Table 7.22: Capacity Assessment for 2023 Assessment Flows (J8)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Highlands - Left Turn	0.230	0	0.230	0	0	0.120	0	0.120	0	0
Highlands - Right Turn	0.380	1	0.380	1	0	0.230	0	0.230	0	0
A595 (S)	0.110	0	0.110	0	0	0.450	2	0.460	2	0
Average Jun. Delay (s/pcu)	2.0		2.0		-	1.9		1.9		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.0		-	+		0.0		-

Table 7.23: Capacity Assessment for 2028 Assessment Flows (J8)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Highlands - Left Turn	0.240	0	0.240	0	0	0.120	0	0.120	0	0
Highlands - Right Turn	0.410	1	0.410	1	0	0.260	0	0.260	0	0
A595 (S)	0.120	0	0.120	0	0	0.500	3	0.500	3	0
Average Jun. Delay (s/pcu)	2.1		2.1		-	2.2		2.2		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.0		-	+		0.0		-



7.9.3 **Table 7.21** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.9.4 **Table 7.22** and **Table 23** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.10 J9: A595/B5295 Egremont Road / Homewood Road Roundabout

7.10.1 This junction currently operates as a roundabout junction and has therefore been modelled using JUNCTIONS 9.

7.10.2 **Table 7.24** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.25** and **Table 7.26** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix M**.

Table 7.24: Capacity Assessment for 2018 Surveyed Flows (J9)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
B5295 Egremont Rd	0.250	0	0.220	0
Homewood Rd	0.520	1	0.780	3
A595 Egremont Rd	0.740	3	0.880	7
A595	0.660	2	0.640	2

Table 7.25: Capacity Assessment for 2023 Assessment Flows (J9)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
B5295 Egremont Rd	0.300	0	0.390	1	0	0.240	0	0.290	0	0
Homewood Rd	0.580	1	0.620	2	0	0.860	5	0.880	6	1
A595 Egremont Rd	0.780	4	0.800	4	1	0.930	11	0.980	21	10
A595	0.700	2	0.710	3	0	0.680	2	0.700	2	0
Average Jun. Delay (s/pcu)	10.8		11.8		-	24.4		37.1		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.0		-	+		12.7		-

Table 7.26: Capacity Assessment for 2028 Assessment Flows (J9)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
B5295 Egremont Rd	0.310	1	0.410	1	0	0.260	0	0.300	0	0
Homewood Rd	0.620	2	0.660	2	0	0.910	7	0.930	9	2
A595 Egremont Rd	0.810	4	0.830	5	1	0.960	16	1.020	33	17
A595	0.730	3	0.740	3	0	0.700	2	0.720	3	0
Average Jun. Delay (s/pcu)	12.1		13.37		-	33.15		51.8		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.3		-	+		18.7		-

7.10.3 **Tables 7.24** and **Table 7.25** show that the junction currently operates within capacity in both the weekday AM and PM peak hours (2018) and that the junction is still forecast to operate within capacity in both the AM and PM peak hours in 2023 even with the addition of the development.

7.10.4 **Table 7.26** shows that the junction is still forecast to operate within capacity in both the AM and PM peak hours in 2028 even with the addition of the development with the exception of the A595 Egremont Rd arm of the junction during the PM peak only. This arm is forecast to operate slightly above its capacity during the 2028 PM peak period with an RFC of 1.020.

7.10.5 However, the increase in average delay at the junction due to the development in 2028 is only forecast to be 1.3 seconds/PCU during the AM peak hour and 18.7 seconds/PCU during the PM peak hour. This level of increase in delay will not be noticeable. Given the threshold for considering mitigation to increase highway capacity at peak periods in the NPPF as described in **Section 7.6**, it is therefore considered that the impact of the development at this junction is not significant let alone severe in NPPF terms.

7.11 J10: A595/Rosehill Priority Junction

7.11.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.11.2 **Table 7.27** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.28** and **Table 7.29** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix N**.

Table 7.27: Capacity Assessment for 2018 Surveyed Flows (J10)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Rosehill	0.680	2	0.860	4
A595 (S)	0.160	0	0.140	0

Table 7.28: Capacity Assessment for 2023 Assessment Flows (J10)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Rosehill - Left Turn	0.830	4	0.900	5	1	0.910	5	0.940	6	1
A595 (S)	0.190	0	0.190	0	0	0.160	0	0.160	0	0
Average Jun. Delay (s/pcu)	5.08		6.28		-	5.91		6.57		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.20		-	+		0.66		-

Table 7.29: Capacity Assessment for 2028 Assessment Flows (J10)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Rosehill - Left Turn	0.850	4	0.920	5	1	0.940	6	0.980	6	1
A595 (S)	0.200	0	0.200	0	0	0.170	0	0.180	0	0
Average Jun. Delay (s/pcu)	5.12		6.63		-	6.49		7.24		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		1.51		-	+		0.75		-

7.11.3 **Table 7.27** shows that the junction currently operates within capacity in both the weekday AM and PM peak hours.

7.11.4 **Table 7.28** and **Table 7.29** show that the junction is forecast to still operate within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible with the queue on the Rosehill arm of the junction forecast to increase by just 1 vehicle during the AM and PM peak periods in 2028 as a result of the development. **Table 7.29** also shows that the average delay per vehicle at the junction due to the development is only forecast to increase by 1.5 seconds per vehicle during the 2028 AM peak period and by 0.75 seconds per vehicle during the 2028 PM peak. This level of increase in delay will not be noticeable.

7.12 J11: A595/Victoria Road (Sunny Hill Pub) Priority Junction

7.12.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.12.2 **Table 7.20** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.21** summarises the results for 2023 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix O**.

Table 7.30: Capacity Assessment for 2018 Surveyed Flows (J11)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Victoria Rd - Left Turn	0.080	0	0.280	0
Victoria Rd - Right Turn	0.090	0	0.200	0
A595 (S)	0.330	1	0.320	1

Table 7.31: Capacity Assessment for 2023 Assessment Flows (J11)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Victoria Rd - Left Turn	0.090	0	0.100	0	0.0	0.300	0	0.310	0	0.0
Victoria Rd - Right Turn	0.110	0	0.260	0	0.2	0.230	0	0.310	0	0.1
A595 (S)	0.370	2	0.370	2	0.0	0.360	1	0.370	2	0.1
Average Jun. Delay (s/pcu)	1.4		1.9		-	2.2		2.5		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.5		-	+		0.3		-

Table 7.32: Capacity Assessment for 2028 Assessment Flows (J11)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Victoria Rd - Left Turn	0.090	0	0.100	0	0.0	0.320	1	0.330	1	0.0
Victoria Rd - Right Turn	0.120	0	0.280	0	0.3	0.250	0	0.340	1	0.2
A595 (S)	0.400	2	0.400	2	0.0	0.380	2	0.390	2	0.1
Average Jun. Delay (s/pcu)	1.5		2.0		-	2.3		2.7		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.5		-	+		0.4		-

7.12.3 **Table 7.30** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.12.4 **Table 7.31** and **Table 7.32** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.13 J12: Moresby Road/Unnamed Road Priority Junction

7.13.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.13.2 **Table 7.33** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.34** and **Table 7.35** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix P**.

Table 7.33: Capacity Assessment for 2018 Surveyed Flows (J12)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Unnamed Rd	0.340	1	0.530	1
Moresby Rd (S)	0.040	0	0.040	0

Table 7.34: Capacity Assessment for 2023 Assessment Flows (J12)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Unnamed Rd	0.390	1	0.400	1	0.1	0.600	1	0.620	2	0.2
Moresby Rd (S)	0.040	0	0.050	0	0.0	0.050	0	0.050	0	0.0
Average Jun. Delay (s/pcu)	2.10		2.12		-	3.9		4.1		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.02		-	+		0.2		-

Table 7.35: Capacity Assessment for 2028 Assessment Flows (J12)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Unnamed Rd	0.410	1	0.420	1	0.0	0.630	2	0.650	2	0.1
Moresby Rd (S)	0.040	0	0.050	0	0.0	0.050	0	0.050	0	0.0
Average Jun. Delay (s/pcu)	2.21		2.23		-	4.32		4.57		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.02		-	+		0.3		-



7.13.3 **Table 7.33** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.13.4 **Table 7.34** and **Table 7.35** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.14 J13: B5295/Main Street Mini-Roundabout

7.14.1 This junction currently operates as a mini roundabout junction and has therefore been modelled using JUNCTIONS 9.

7.14.2 **Table 7.36** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.37** and **Table 7.38** summarises the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix Q**.

Table 7.36: Capacity Assessment for 2018 Surveyed Flows (J13)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
B5295 Ribton Moor Side	0.600	2	0.560	1
B5295 Main St	0.720	3	0.580	1
B5295 Egremont Road	0.250	0	0.360	1

Table 7.37: Capacity Assessment for 2023 Assessment Flows (J13)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
B5295 Ribton Moor Side	0.650	2	0.750	3	1	0.600	2	0.640	2	0
B5295 Main St	0.780	3	0.850	5	2	0.630	2	0.760	3	1
B5295 Egremont Road	0.270	0	0.280	0	0	0.390	1	0.420	1	0
Average Jun. Delay (s/pcu)	15.5		21.1		-	10.2		13.7		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		5.6		-	+		3.5		-

Table 7.38: Capacity Assessment for 2028 Assessment Flows (J13)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
B5295 Ribton Moor Side	0.670	2	0.770	3	1	0.620	2	0.660	2	0
B5295 Main St	0.820	4	0.890	7	2	0.650	2	0.790	4	2
B5295 Egremont Road	0.280	0	0.290	0	0	0.400	1	0.430	1	0
Average Jun. Delay (s/pcu)	18.0		25.4		-	10.9		15.1		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		7.4		-	+		4.2		-

7.14.3 **Table 7.36** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.14.4 **Table 7.37** and **Table 7.38** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.

7.15 J14: A595/Inkerman Terrace Signal Junction

7.15.1 This junction currently operates as a signal-controlled junction and has therefore been modelled using LinSig. Existing signal timing data has been obtained from HE to ensure the correct modelling parameters are used when assessing the operation of the junction. Because of the close association with junction 7, the A595/B5295 Ribton Moorside Signal Junction, the two junctions have been modelled together.

7.15.2 **Table 7.39** summarises the capacity results obtained using the 2018 surveyed flows and **Table 7.40** and **Table 7.41** summarise the results for 2023 and 2028 without and with the development for the A595/Inkerman Terrace junction only. Full JUNCTIONS 9 outputs are contained in **Appendix K**.

Table 7.39: Capacity Assessment for 2018 Surveyed Flows (J14)

Approach	2018 Surveyed Year			
	AM Peak		PM Peak	
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)
Hensingham Bypass (NB) Left	49.8%	5	52.7%	6
Hensingham Bypass (NB) Ahead	59.0%	11	85.7%	15
Inkerman Terrace	69.5%	10	86.6%	18
A595 Loop Rd (SB) Ahead	61.6%	13	59.5%	12
A595 Loop Rd (SB) Right	46.3%	4	55.2%	4

Table 7.40: Capacity Assessment for 2023 Assessment Flows (J14)

Approach	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)
Hensingham Bypass (NB) Left	52.7%	5	53.6%	6	0.2	55.3%	8	55.8%	8	0.1
Hensingham Bypass (NB) Ahead	68.2%	13	68.5%	13	0.0	87.3%	15	87.5%	16	0.5
Inkerman Terrace	64.5%	10	65.1%	10	0.1	86.0%	22	87.5%	23	1.0
A595 Loop Rd (SB) Ahead	69.9%	16	70.1%	16	0.0	63.1%	16	63.4%	16	0.1
A595 Loop Rd (SB) Right	58.8%	6	60.8%	6	0.2	76.7%	6	77.5%	7	0.1
Average Jun. Delay (s/pcu)	19.7		19.9		-	32.3		33.1		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.2		-	+		0.8		-

Table 7.41: Capacity Assessment for 2028 Assessment Flows (J14)

Approach	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)	DoS (%)	MMQ (pcu)	DoS (%)	MMQ (pcu)	MMQ (pcu)
Hensingham Bypass (NB) Left	54.6%	6	55.5%	6	0.2	57.0%	8	57.5%	8	0.0
Hensingham Bypass (NB) Ahead	70.5%	14	70.8%	14	0.1	90.0%	17	90.2%	17	0.2
Inkerman Terrace	66.6%	10	67.3%	11	0.3	88.7%	24	90.3%	25	1.1
A595 Loop Rd (SB) Ahead	72.1%	16	72.3%	17	0.1	65.1%	17	65.4%	17	0.1
A595 Loop Rd (SB) Right	64.2%	6	66.3%	6	0.2	90.7%	9	91.8%	9	0.3
Average Jun. Delay (s/pcu)	20.4		20.5		-	37.0		38.2		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.1		-	+		1.3		-

7.15.3 **Table 7.39** shows that the junction currently operates within capacity in both the weekday AM and PM peak hours.

7.15.4 **Table 7.40** and **Table 7.41** show that the junction is forecast to still operate within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible with no, or negligible increase in queues as a result of the development and with the average delay per vehicle at the junction only increasing by 1.3 seconds due to the development during the 2028 PM peak period. This increase in delay will not be noticeable.

7.16 J15: Solway View/Oakbank Road/Park View Priority Junction

7.16.1 This junction currently operates as a priority junction and has therefore been modelled using JUNCTIONS 9.

7.16.2 **Table 7.42** summarises the capacity results obtained using the 2018 surveyed flows while **Table 7.43** and **Table 7.44** summarise the results for 2023 and 2028 without and with the development. Full JUNCTIONS 9 outputs are contained in **Appendix R**.

Table 7.42: Capacity Assessment for 2018 Surveyed Flows (J15)

Link Description	2018 Surveyed Year			
	AM Peak		PM Peak	
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)
Park View - Left Turn	0.240	0	0.160	0
Park View - Right Turn	0.010	0	0.020	0
Solway View	0.140	0	0.310	1

Table 7.43: Capacity Assessment for 2023 Assessment Flows (J15)

Link Description	AM Peak					PM Peak				
	2023 Without Development		2023 With Development		Diff.	2023 Without Development		2023 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Park View - Left Turn	0.290	0	0.310	1	0.1	0.190	0	0.200	0	0.0
Park View - Right Turn	0.010	0	0.090	0	0.1	0.020	0	0.070	0	0.1
Solway View	0.160	0	0.170	0	0.0	0.390	1	0.420	1	0.1
Average Jun. Delay (s/pcu)	4.17		4.79		-	4.45		4.77		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.6		-	+		0.3		-

Table 7.44: Capacity Assessment for 2028 Assessment Flows (J15)

Link Description	AM Peak					PM Peak				
	2028 Without Development		2028 With Development		Diff.	2028 Without Development		2028 With Development		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Park View - Left Turn	0.300	0	0.320	1	0.1	0.190	0	0.210	0	0.1
Park View - Right Turn	0.010	0	0.090	0	0.1	0.030	0	0.070	0	0.1
Solway View	0.160	0	0.170	0	0.0	0.400	1	0.440	1	0.1
Average Jun. Delay (s/pcu)	4.22		4.83		-	4.55		4.87		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		0.6		-	+		0.3		-

7.16.3 **Table 7.42** shows that the junction currently operates well within capacity in both the weekday AM and PM peak hours.

7.16.4 **Table 7.43** and **Table 7.44** show that the junction is forecast to still operate well within capacity in both the AM and PM peak hours in 2023 and 2028 even with the addition of the development. The tables show that the impact of the proposals on the operation of the junction is negligible.



7.17 Potential Off-Site Junction Improvements

J5: Moresby Road/Cleator Moor Road/Main Street Mini Roundabout

- 7.17.1 **Section 7.6** indicates that in 2023, the junction is forecast to operate within capacity during the AM peak hour with the addition of the development but at over its capacity during the PM peak period on the Cleator Moor Road arm of the junction even without the proposed development.
- 7.17.2 In 2028, the junction is forecast to operate at just below its capacity in the AM peak period on the Cleator Moor Road arm of the junction without the development but at just above its capacity on the same arm during the same peak period with the development. During the 2028 PM peak period, the junction is forecast to operate above its capacity even without the development.
- 7.17.3 For the reasons given in Section 7.6, it is considered that the impact of the development at this junction is not significant or 'severe' in NPPF terms. Nevertheless, the following junction improvement scheme has been assessed on a 'without prejudice' basis. The improvements consist of widening the Cleator Moor Road arm of the junction to provide two lanes at the arm's give way line as shown in Drawing No. A090070-P006 Rev P01(attached in **Appendix T**). This will provide additional capacity at the junction.
- 7.17.4 **Table 7.45** and **Table 7.46** summarise the results of the 2023/2028 'with' development scenarios. The full JUNCTIONS 9 output report is contained in **Appendix J**. For comparison purposes, the results obtained using the junction's existing layout (see **Section 7.6**) are also reproduced in **Table 7.45** and **Table 7.46**.

Table 7.45: Capacity Assessment for 2023 Assessment Flows (J5 with Mitigation)

Link Description	AM Peak					PM Peak				
	2023 w/o Dev. (Existing Layout)		2023 with Dev. (with Mitigation)		Diff.	2023 w/o Dev. (Existing Layout)		2023 with Dev. (with Mitigation)		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)		Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	
Moresby Parks Rd	0.830	5	0.970	15	10	0.900	8	0.970	13	6
Cleator Moor Rd	0.900	8	0.800	4	-4	1.110	51	0.960	13	-38
Main St	0.740	3	0.790	4	1	0.810	4	0.970	13	9
Average Jun. Delay (s/pcu)	29.58		40.33		-	101.63		66.00		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		10.8		-	-		35.6		-



Table 7.46: Capacity Assessment for 2028 Assessment Flows (J5 with Mitigation)

Link Description	AM Peak					PM Peak				
	2028 w/o Dev. (Existing Layout)		2028 with Dev. (with Mitigation)		Diff.	2028 w/o Dev. (Existing Layout)		2028 with Dev. (with Mitigation)		Diff.
	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max RFC	Max Queue (PCU)	Max Queue (PCU)
Moresby Parks Rd	0.860	6	1.000	20	14	0.940	10	1.000	19	9
Cleator Moor Rd	0.940	10	0.830	5	-6	1.150	66	0.990	18	-48
Main St	0.770	3	0.820	4	1	0.840	5	1.000	19	14
Average Jun. Delay (s/pcu)	37.11		49.81		-	135.85		87.69		-
Average Jun. Delay Increase Due to Dev. (s/pcu)	+		12.7		-	-		48.2		-

7.17.5 **Table 7.45** and **Table 7.46** demonstrate that the modified junction layout would provide an improved operational performance during both peak periods when compared to the existing junction layout. The tables show that in 2023, the modified junction is forecast to operate at below its capacity during both peak periods while in 2028, the modified junction with the development is forecast to operate at its capacity during both peak periods.

7.17.6 A comparison of the modified layout 'with development' against the existing layout 'without development' shows that in 2028, the development is forecast to increase junction delay at the junction by only 12.7 seconds per vehicle during the AM peak period (a level which will not be noticeable) while in the PM peak period, the modified junction layout would actually reduce the junction delay by 48.2 seconds per vehicle.

7.17.7 The modified junction layout set out above more than mitigates for the impact of the proposed development at the junction.



8. Summary and Conclusions

8.1 Summary

- 8.1.1 WYG has been commissioned by Homes England to provide transport and highways advice in relation to an outline planning application for a proposed development comprising of up to 370 dwellings on land at Harras Moor, Whitehaven, Cumbria.
- 8.1.2 The proposed site is located around 1.3km east of Whitehaven town centre on land south of Harras Road and is situated between existing residential development and an industrial development.
- 8.1.3 Relevant national and local planning policy has been reviewed with regard to transport considerations and it is considered that the proposals are compliant with the intentions of the various planning guidelines and policies.
- 8.1.4 An analysis of recent accident data on the local highway network shows that there are no specific highway safety issues on the local road network and based on this analysis, highway safety is therefore not considered to be a barrier to the development of the site.
- 8.1.5 The proposed development is well located in terms of access to sustainable travel modes.
- 8.1.6 The site is located within an acceptable walking distance of a number of important amenities and facilities. Whitehaven town centre, where a wide range of leisure, employment and retail facilities are located can be reached within a 2km walk of the site with many facilities located closer than this.
- 8.1.7 The site is well located to encourage trips by cycle. A range of important local employment, leisure, retail, education and health facilities can be reached within an acceptable 5km cycle of the site, including those within Whitehaven town centre.
- 8.1.8 The site is served by a regular bus service which provides connectivity to areas surrounding the site, including Whitehaven town centre. The service can be caught within a 700m walk of the centre of the site and has a half hourly frequency on weekdays and Saturdays.
- 8.1.9 Furthermore, the proposed development site is closer to Whitehaven town centre and is more accessible to a greater number of local amenities and facilities than the recently approved 110 dwelling residential development on the northern side of Harras Road, to the north of this proposed development.



- 8.1.10 Detailed discussions have taken place with the LHA on the proposed access arrangements. As a result of these discussions vehicular access to the proposed development is proposed via Caldbeck Road, by extending the current road further into the site, and via a new priority-controlled access junction on Harras Road on the north-eastern boundary of the site. Visibility splays which meet the requirements of observed 85th percentile speeds along Harras Road can be achieved from the new junction.
- 8.1.11 In terms of pedestrian access, this will be provided at both vehicular site access junctions where pedestrian footways will be provided along both sides of the access road which will link into existing footways. Pedestrian connections will also be provided at other points around the development site including to the A595 Loop Road South from the south-western boundary of the site. The potential to provide additional pedestrian connections will be studied in further detail as part of the future reserved matters applications for the site.
- 8.1.12 Prior to the preparation of the original TA, the LHA and HE were consulted on the proposed trip generation, trip distribution and extent of junction analysis to be undertaken. The trip generation was agreed while the initial trip distribution proposed has been amended following comments made by the LHA.
- 8.1.13 Following consultation with the LHA and HE, it was agreed that 14 off-site junctions would need to be assessed to determine the development's impact on the highway network. At the request of the LHA following submission of the original TA, junction assessments have been undertaken at all these junctions together with the site access junctions for an assessment year 2023 and 2028 (10 years after the date of registration of the planning application). The assessments show that all but two of the junctions are forecast to operate at below their capacity even in 2028 with the development. The exception to this is at the Moresby Road/Cleator Moor Road/Main Street Mini Roundabout and at the A595/B5295 Egremont Road/Homewood Road Roundabout.
- 8.1.14 The assessments undertaken show that at the Moresby Road/Cleator Moor Road/Main Street Mini Roundabout, the junction is generally forecast to operate at below its capacity on all arms except for the Cleator Moor Road arm of the junction. The assessments show that on this arm, the arm is forecast to operate at above its capacity during the PM peak period even without the development.
- 8.1.15 Whilst it is considered that the impact of the development at this junction is not significant or 'severe' in NPPF terms, a junction improvement scheme consisting of widening the Cleator Moor Road arm of the junction to provide two lanes at the arm's give way line has been assessed on a 'without prejudice' basis. The assessments undertaken show that the improvements assessed at the junction would more than mitigate for the impact of the development.



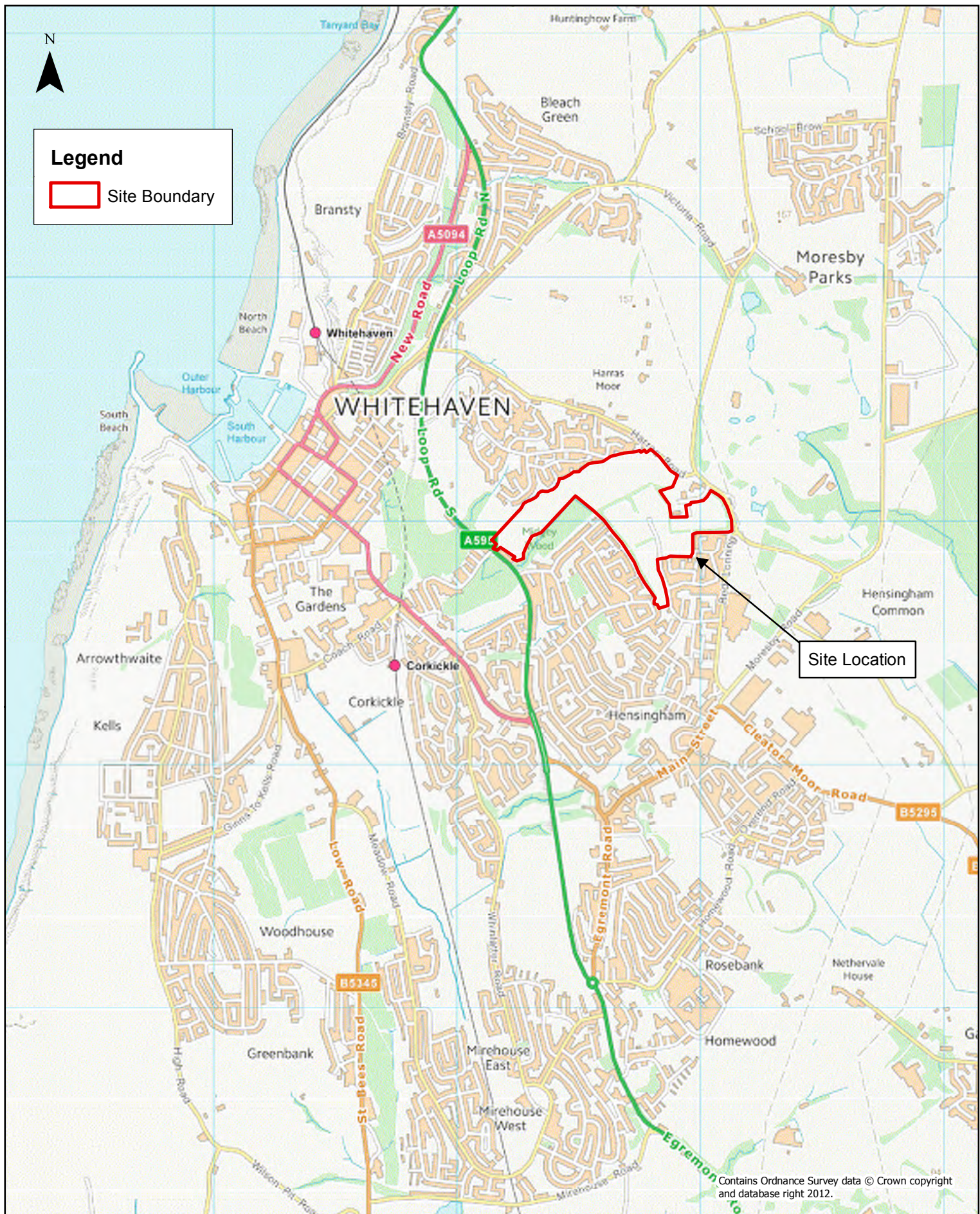
8.1.16 The assessments also show that at the A595/B5295 Egremont Road/Homewood Road Roundabout, the junction is generally forecast to operate within capacity in both the AM and PM peak hours even in 2028 with the addition of the development. The only exception to this is on the A595 Egremont Rd arm of the junction which is forecast to operate slightly above its capacity during the 2028 PM peak period. However, the increase in average delay at the junction due to the development is small and will not be noticeable. It is considered that the impact of the development at this junction is not significant let alone severe in NPPF terms.

8.2 Conclusions

- 8.2.1 It has been shown that the proposed development site is in an accessible location to make use of sustainable forms of transport in compliance with the NPPF and local policy.
- 8.2.2 It has also been demonstrated that the proposed development will not have a significant impact on the safe and efficient operation of the surrounding highway network and that its impact will not be 'severe' in NPPF terms.
- 8.2.3 The report's findings are therefore commended to the local highway authority for approval since it has been demonstrated that no highway or transport reasons exist which should prevent approval of the planning application.



Plans



Harras Road, Harras Moor, Whitehaven

Plan 1: Site Location

Scale @ A4 1:20,000

Project No: A090070 - 410

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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Harras Road, Harras Moor, Whitehaven

Plan 2: Local Highway Network

Scale @ A4 NTS

Project No: A090070 - 410

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

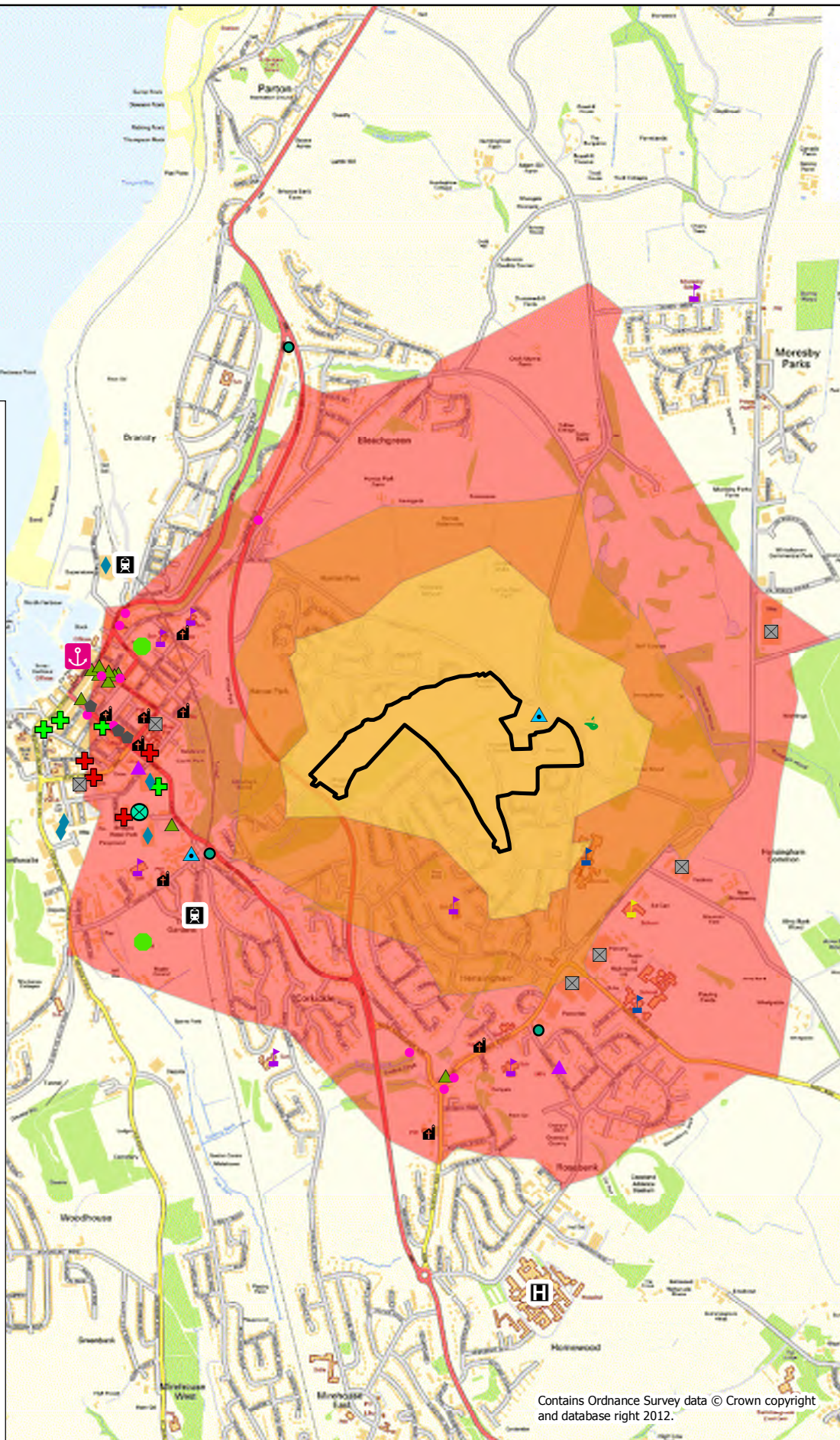


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Legend

-  Site Boundary
-  800m Catchment
-  1200m Catchment
-  2km Catchment
-  Leisure/Entertainment
-  Marina
-  Recreation Ground
-  Bank
-  Sports Centre
-  Supermarket
-  Rail Station
-  Pub/Bar
-  Restaurant / Takeaway
-  Library
-  Hospital
-  Place of Worship
-  Special School
-  Golf Club
-  Convenience Store
-  Post Office
-  Employment
-  Secondary School
-  Primary School
-  Pharmacy
-  GP Surgery



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Harras Road, Harras Moor, Whitehaven

Plan 3: Walking Catchments

Scale @ A4 NTS

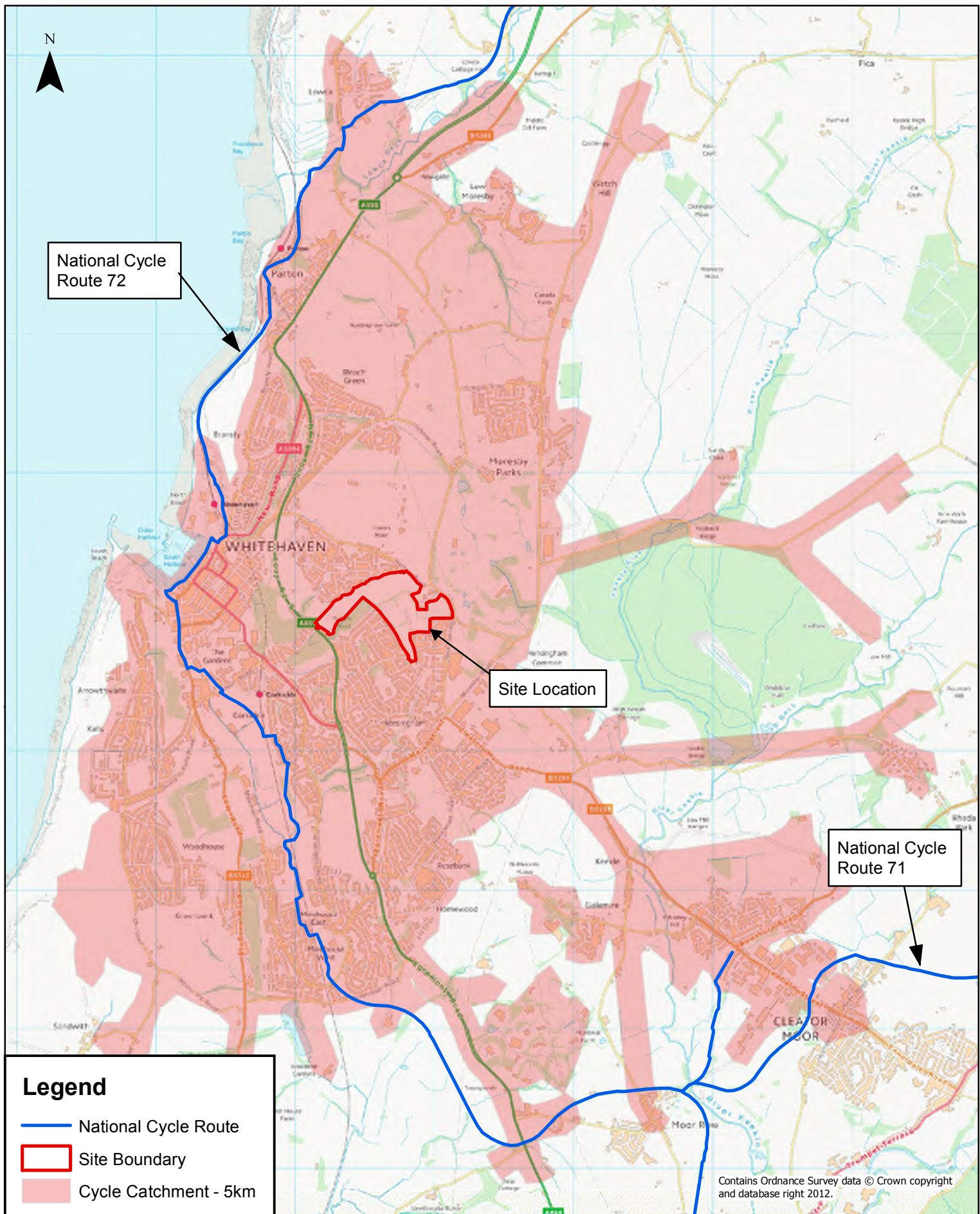
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QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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Harras Road, Harras Moor, Whitehaven

Plan 4: 5km Cycle Catchment

Scale @ A4 NTS

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QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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Figures

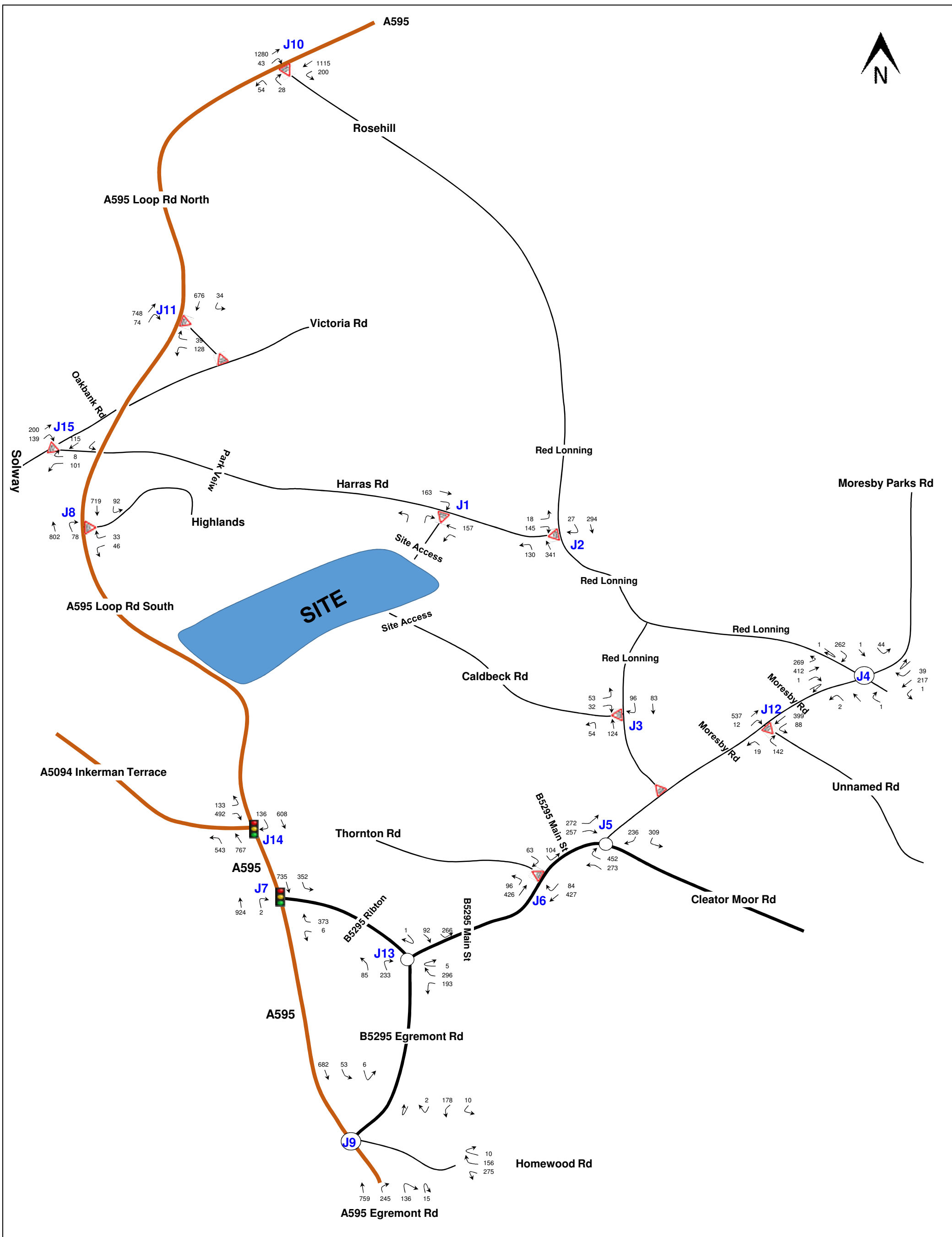


Fig 2: PM Peak Hour 2018 Surveyed Flows (16:15-17:15)

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QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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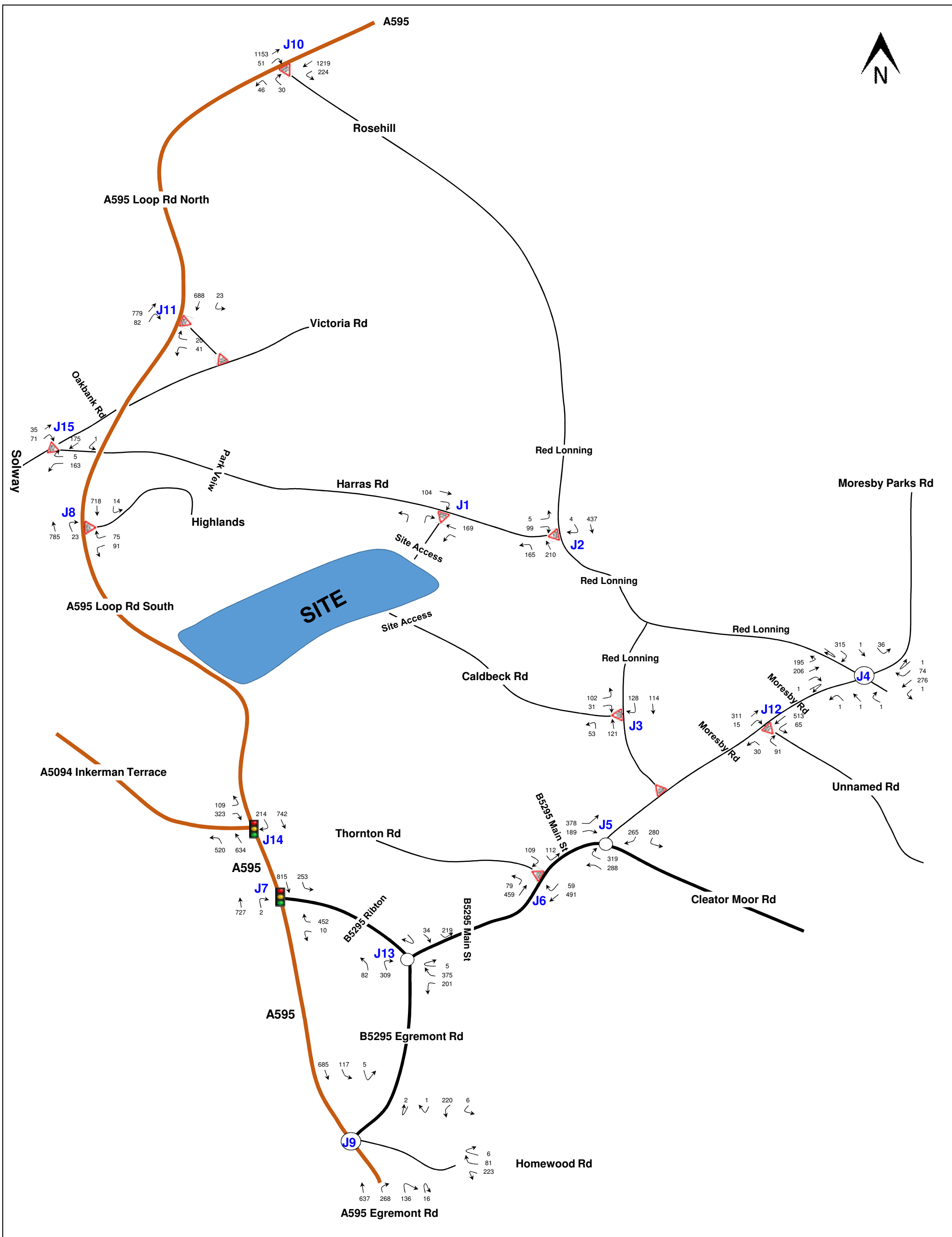


Fig 3: AM Peak Hour 2023 Growned Surveyed Flow (08:00-09:00)

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QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
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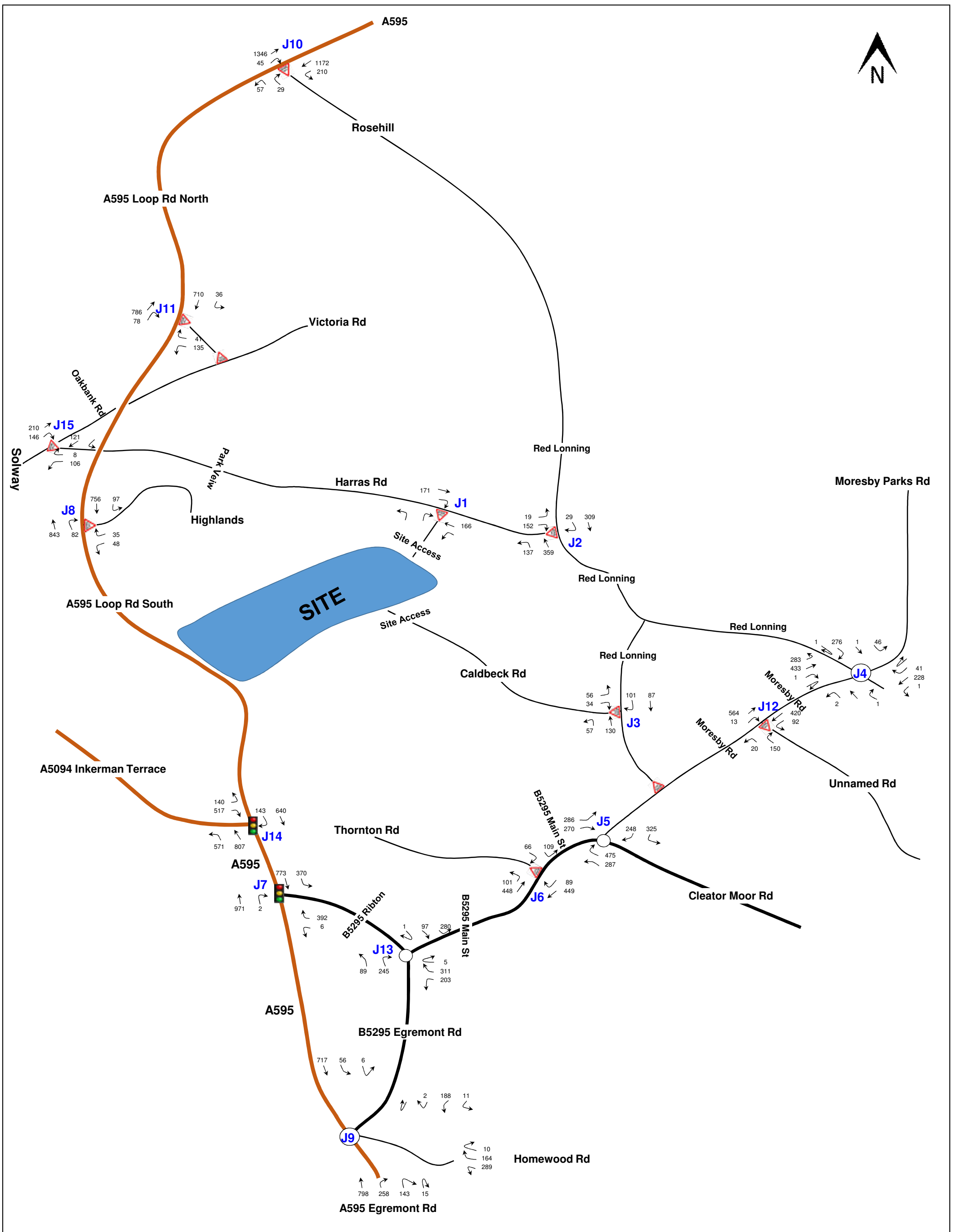


Fig 4: PM Peak Hour 2023 Growned Surveyed Flows (16:15-17:15)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
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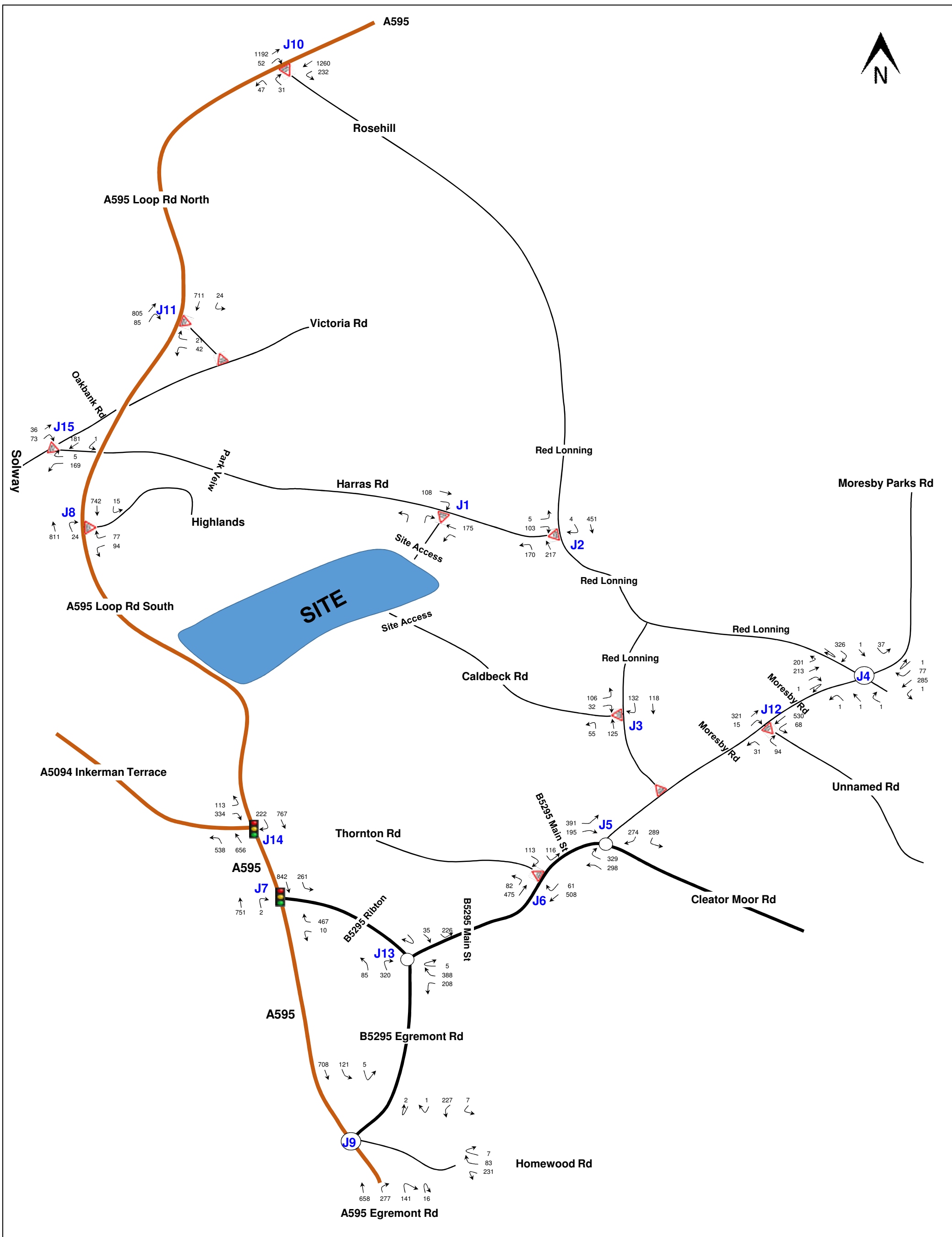


Fig 5: AM Peak Hour 2028 Growth Surveyed Flow (08:00-09:00)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
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MANCHESTER
M17 1HH
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FAX: +44 (0)161 872 3193
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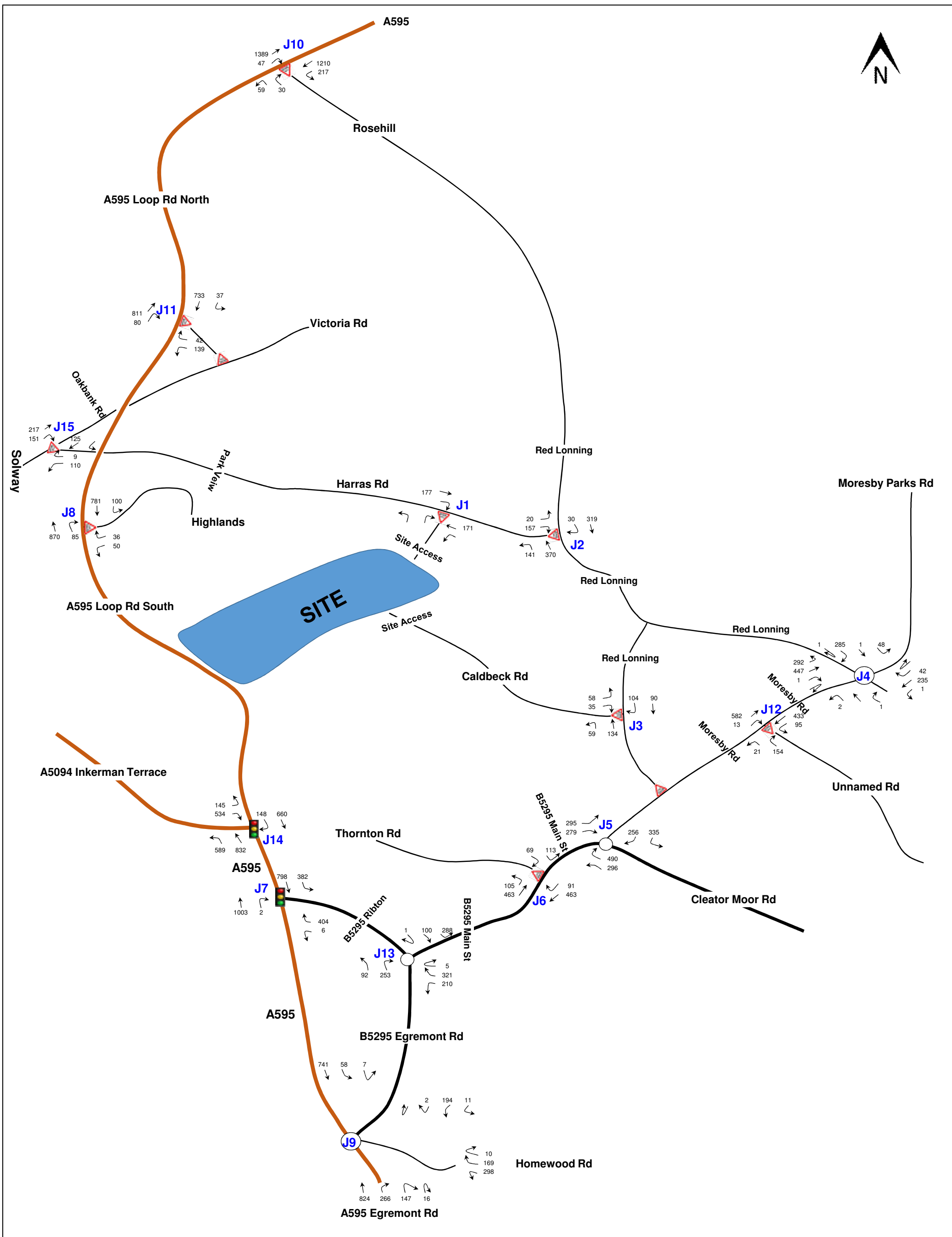


Fig 6: PM Peak Hour 2028 Grownthed Surveyed Flows (16:15-17:15)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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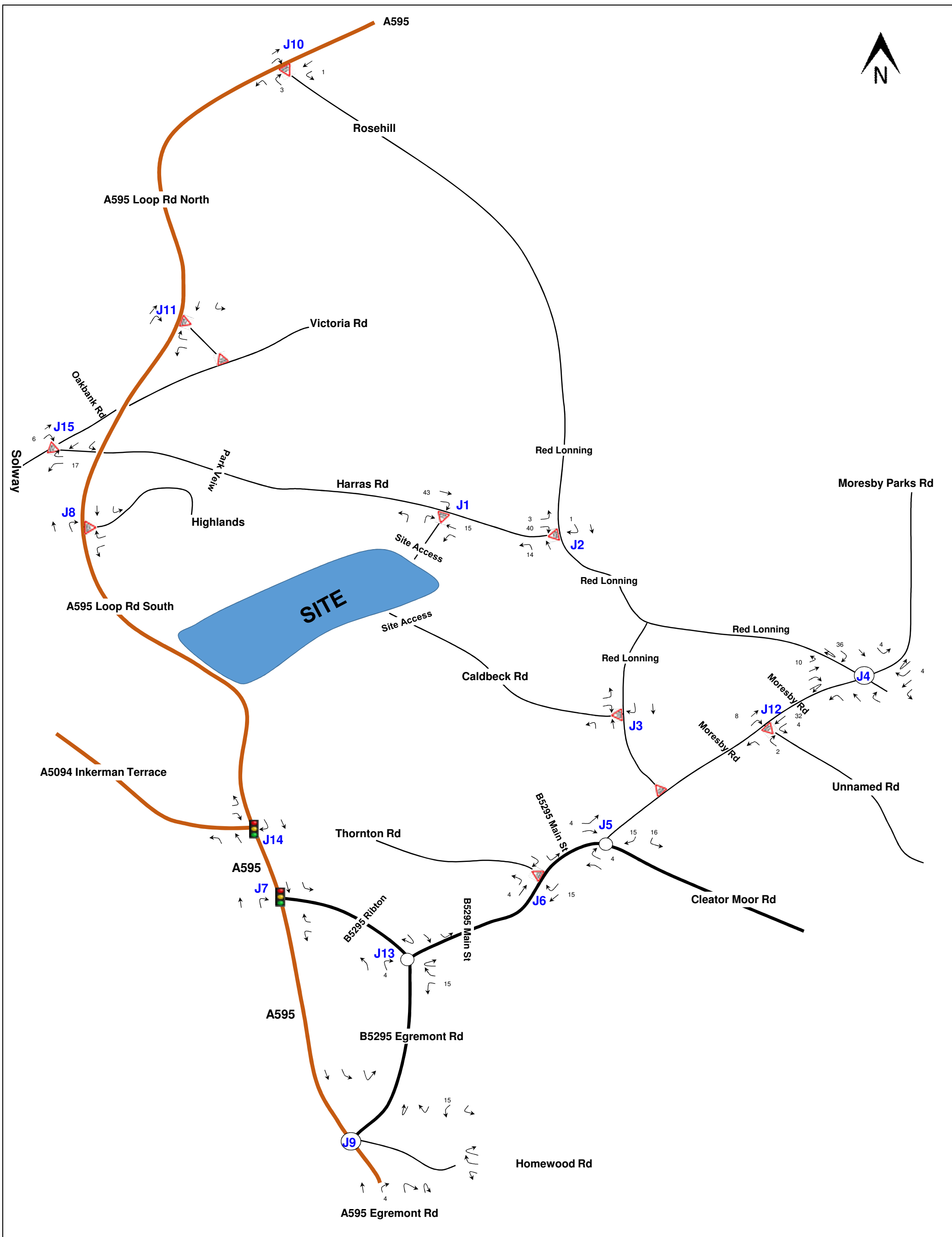


Fig 7: AM Peak Hour Committed Dev. Flows - Land at Harras Moor (4/16/2416/001&4/16/2415/001)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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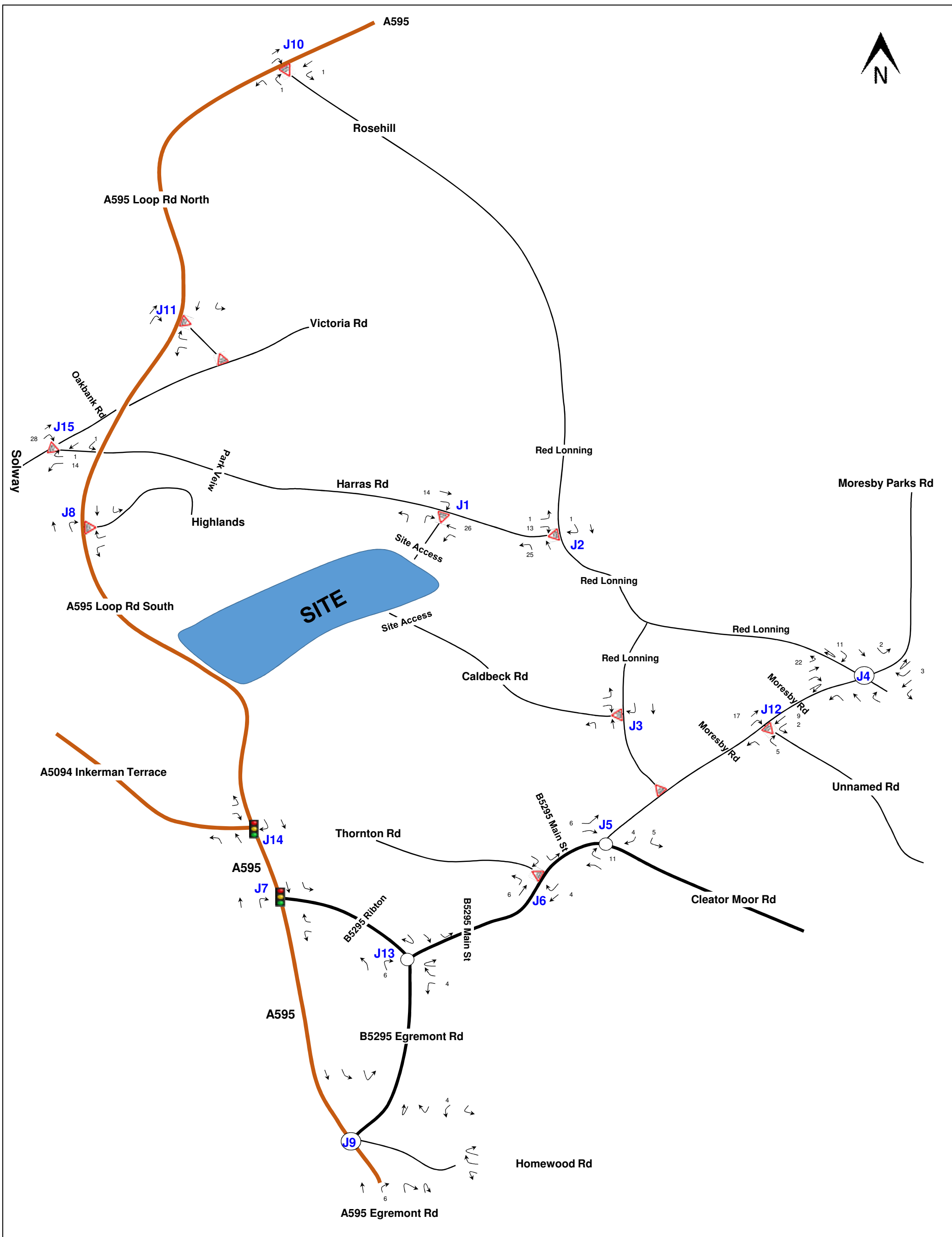


Fig 8: PM Peak Hour Committed Dev. Flows - Land at Harras Moor (4/16/2416/001&4/16/2415/001)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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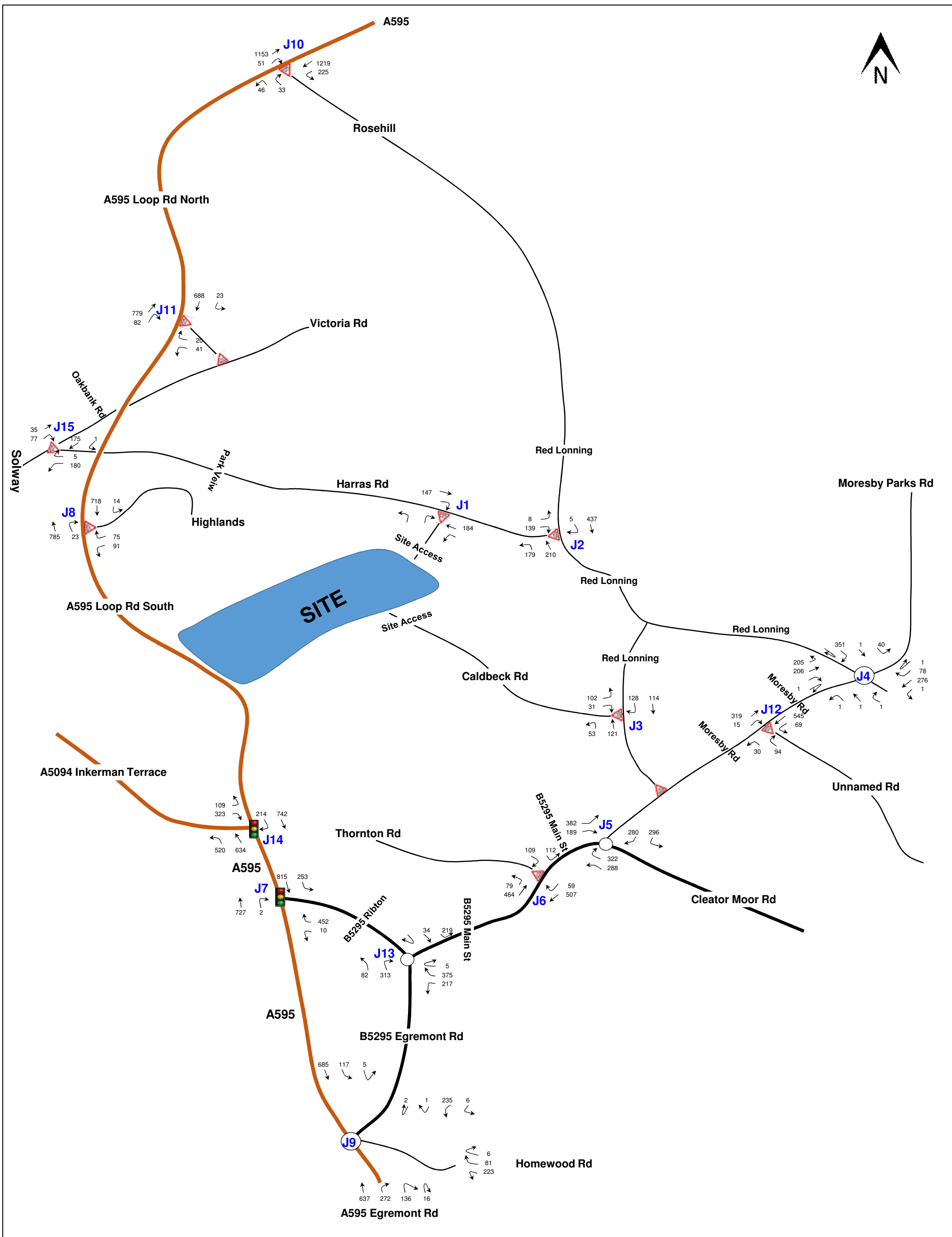


Fig 9: AM Peak Hour 2023 Baseline Flows (without Proposed Development)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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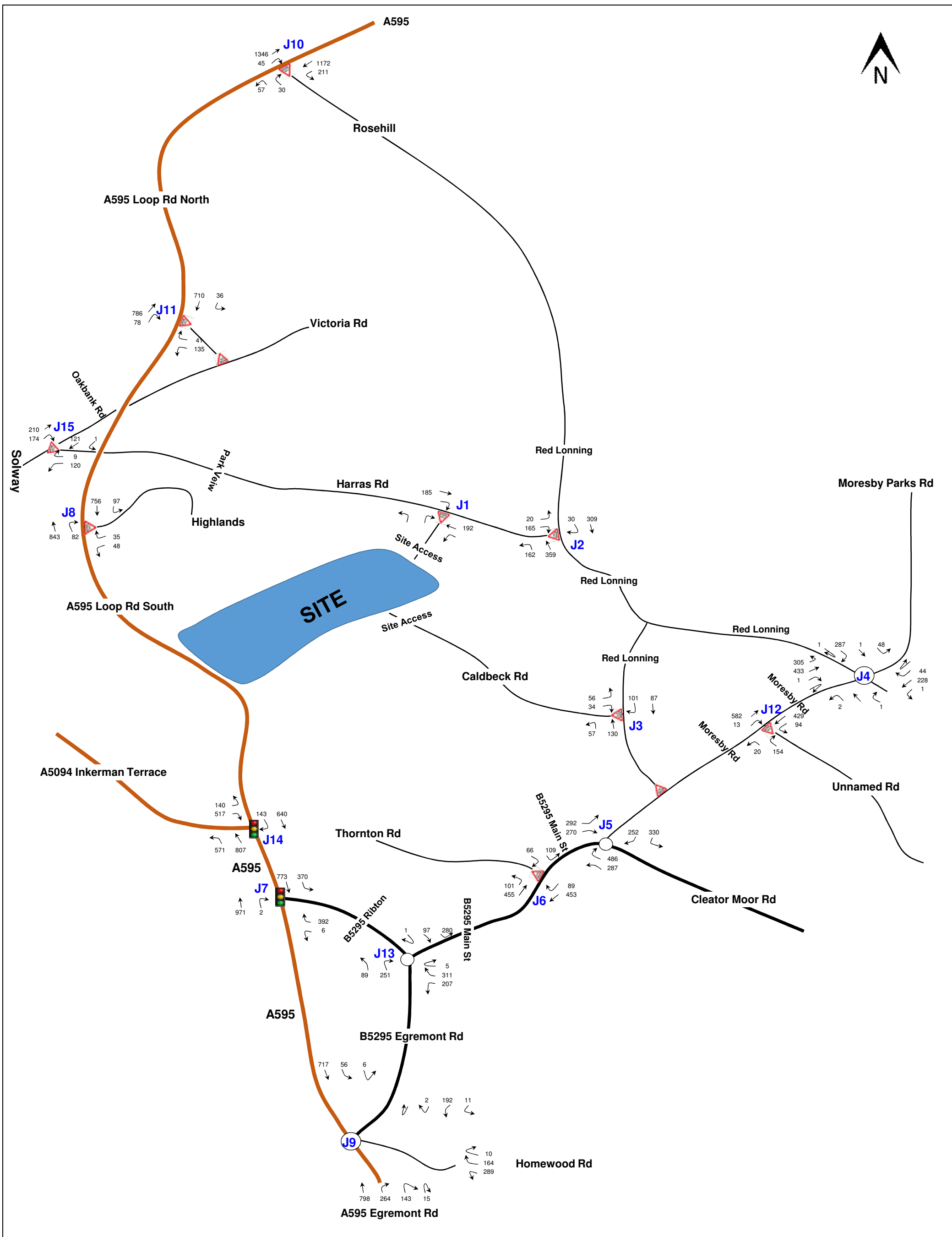


Fig 10: PM Peak Hour 2023 Baseline Flows (without Proposed Development)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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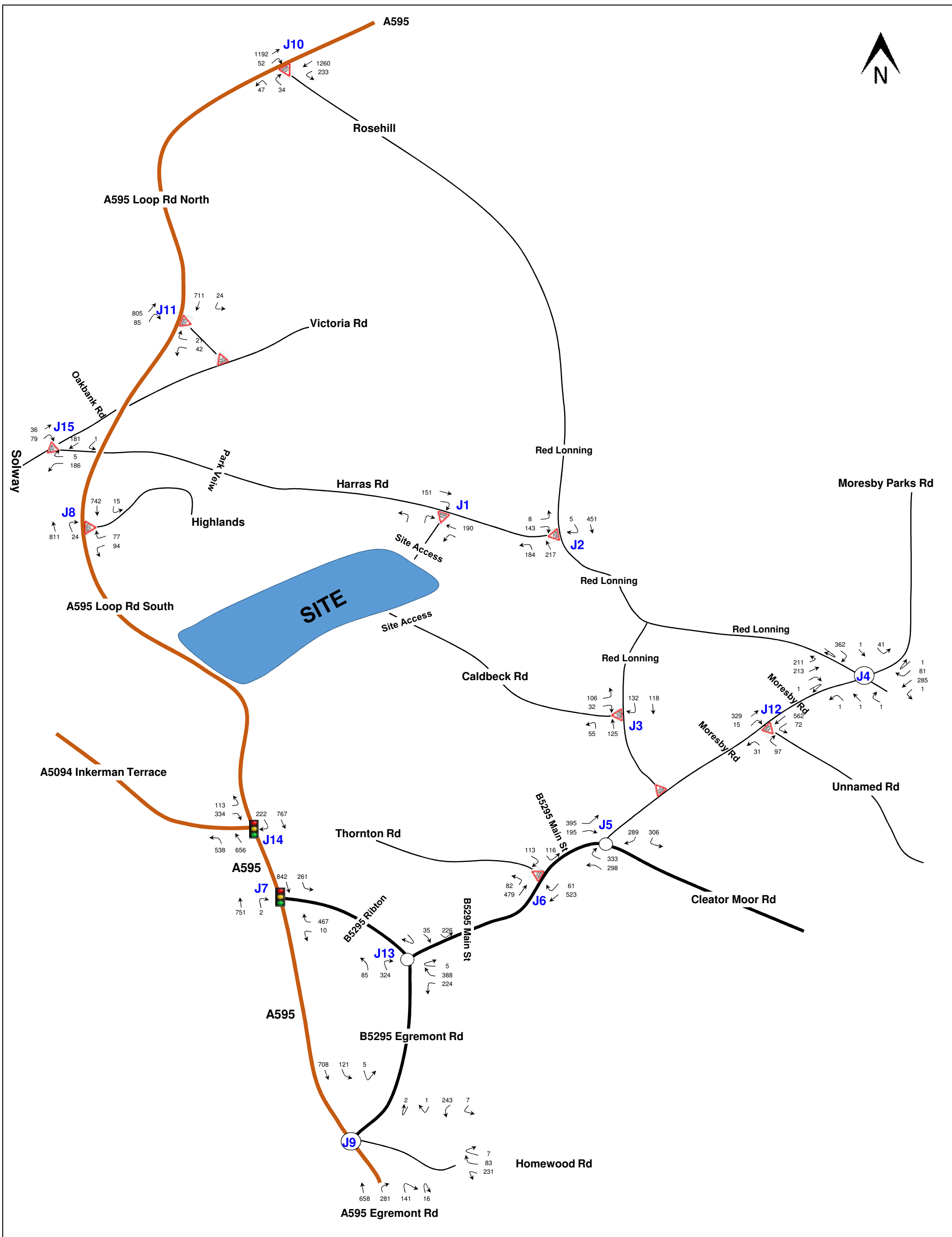


Fig 11: AM Peak Hour 2028 Baseline Flows (without Proposed Development)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

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TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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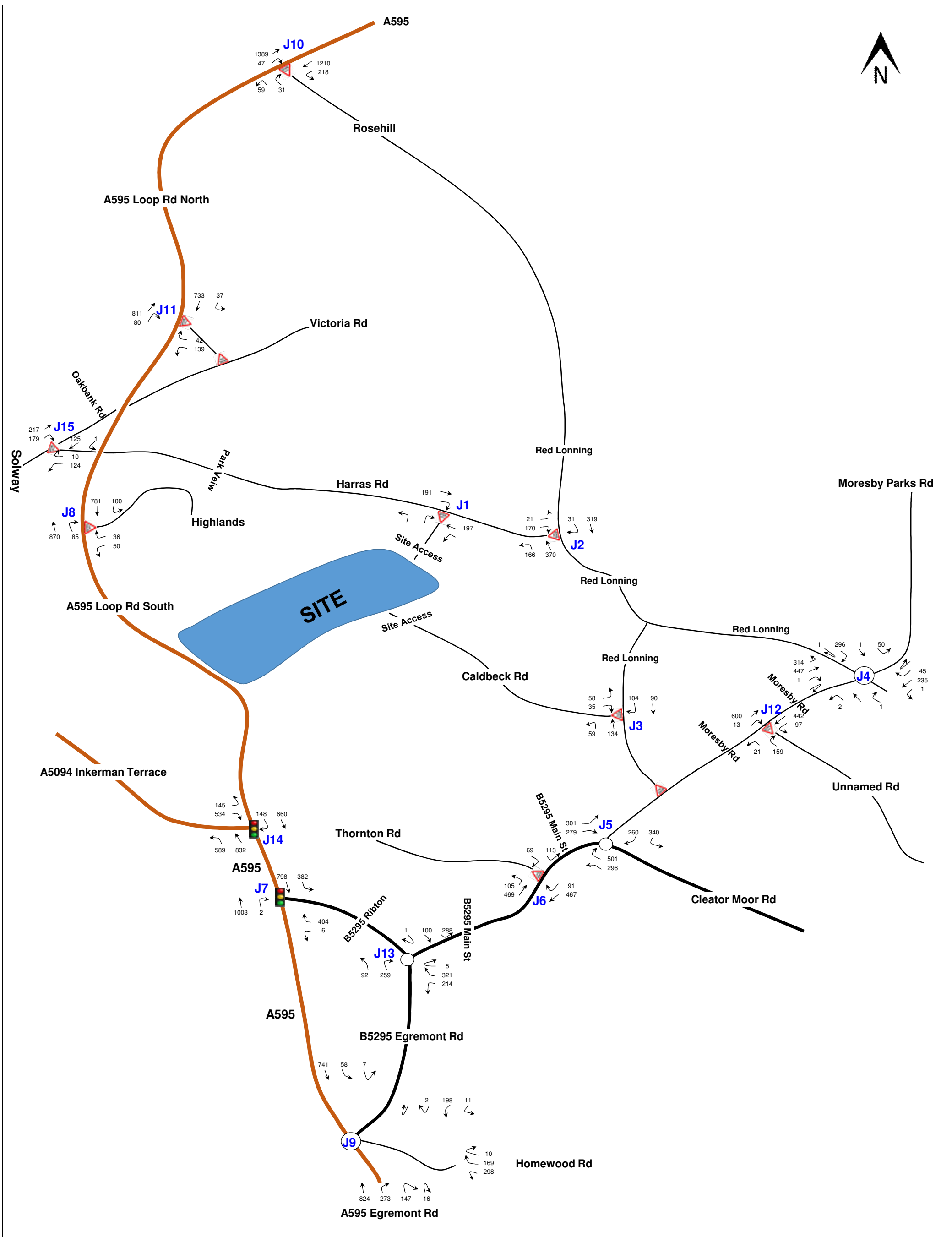


Fig 12: PM Peak Hour 2028 Baseline Flows (without Proposed Development)

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

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TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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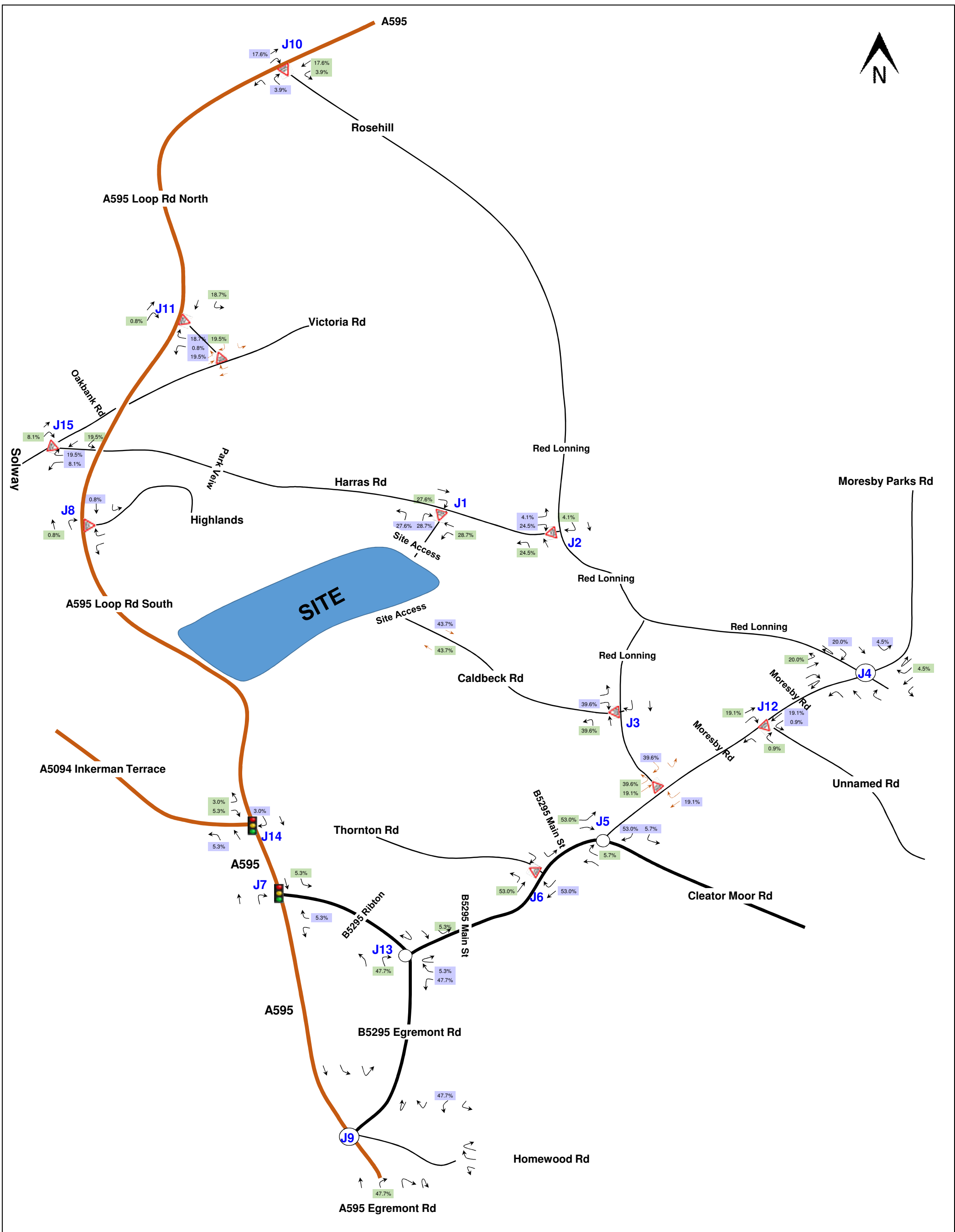


Fig 13: Trip Distribution based on 2011 Census- Proposed Residential Development

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

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TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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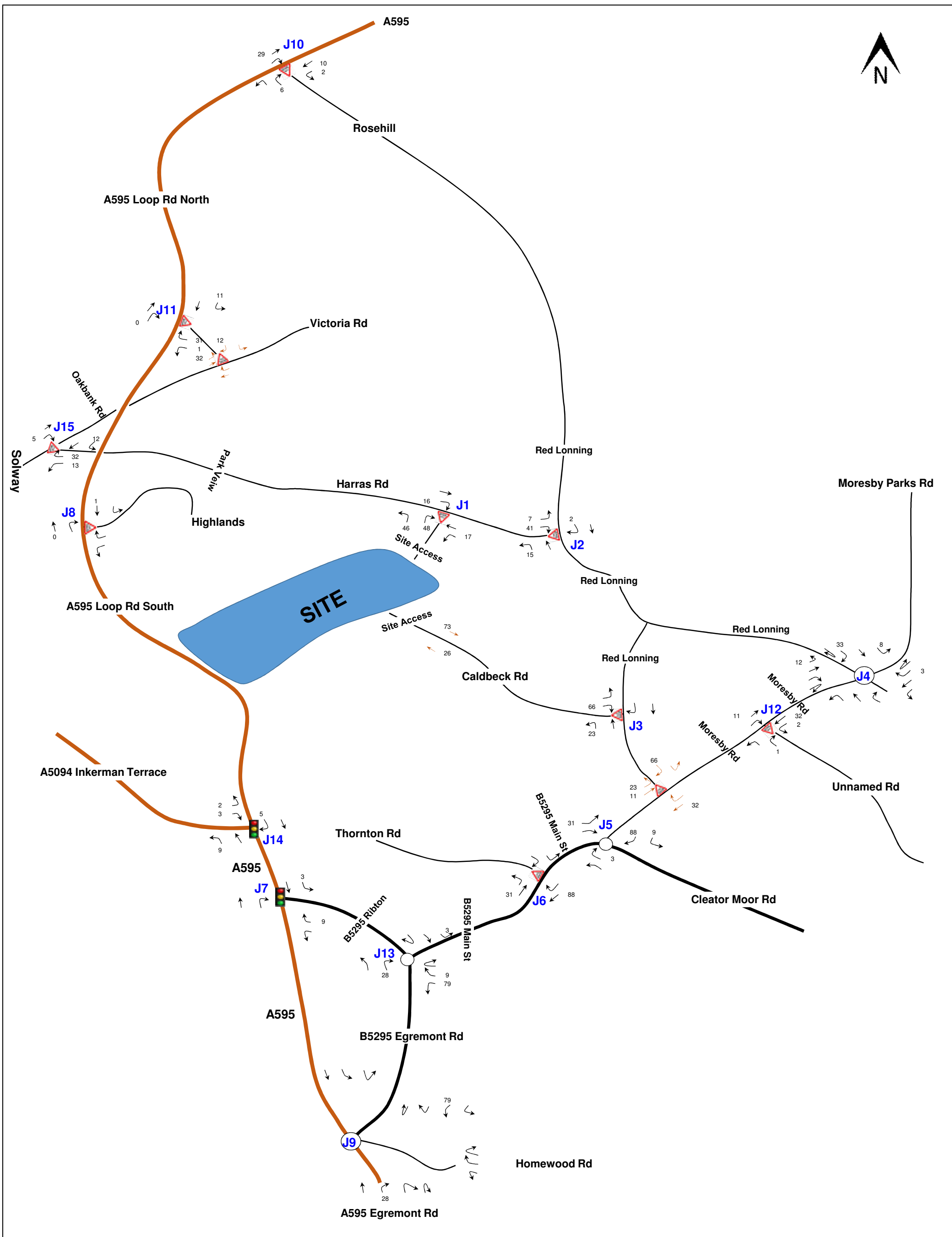


Fig 14: AM Peak Trip Generation - Proposed Residential Development

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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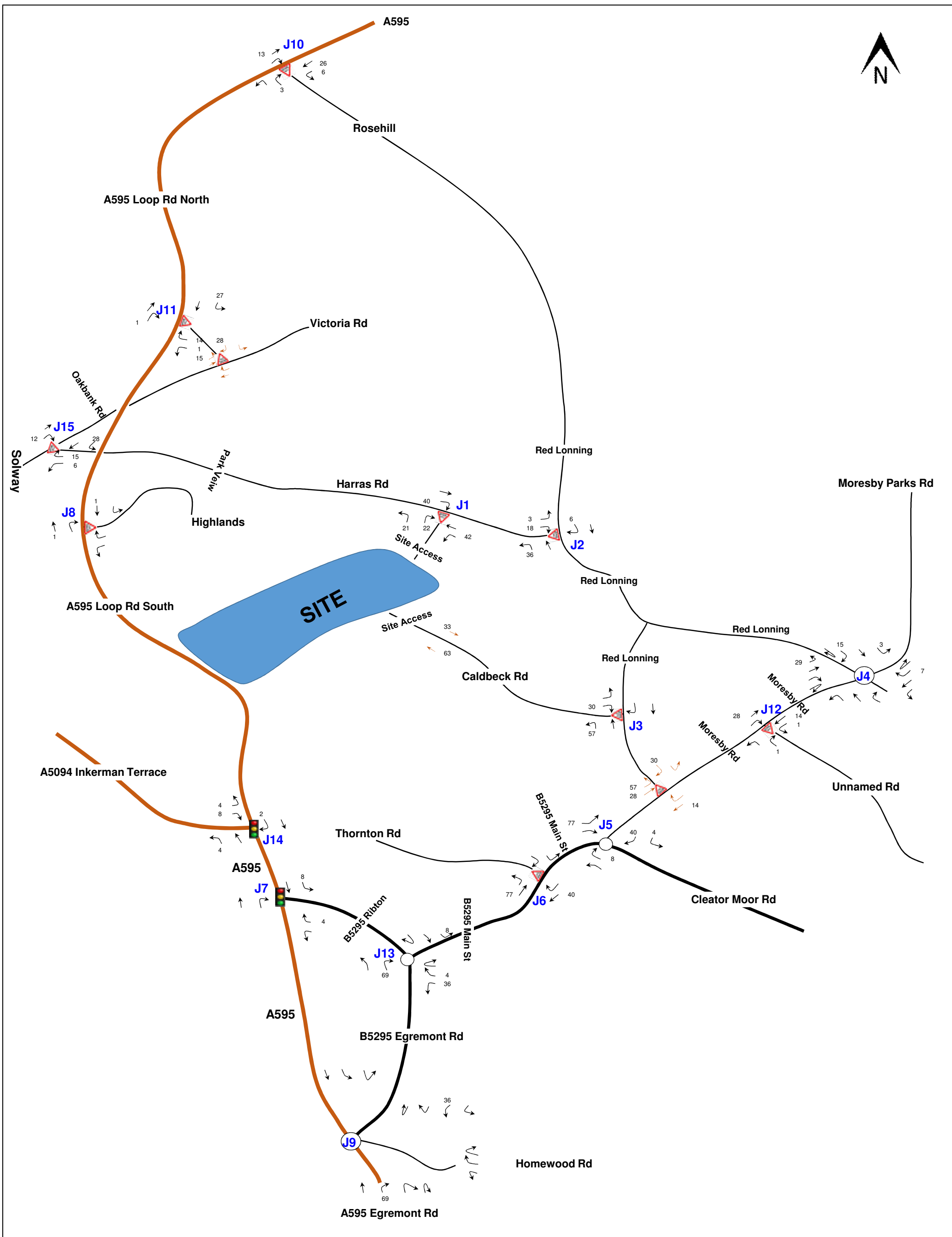


Fig 15: PM Peak Trip Generation - Proposed Residential Development

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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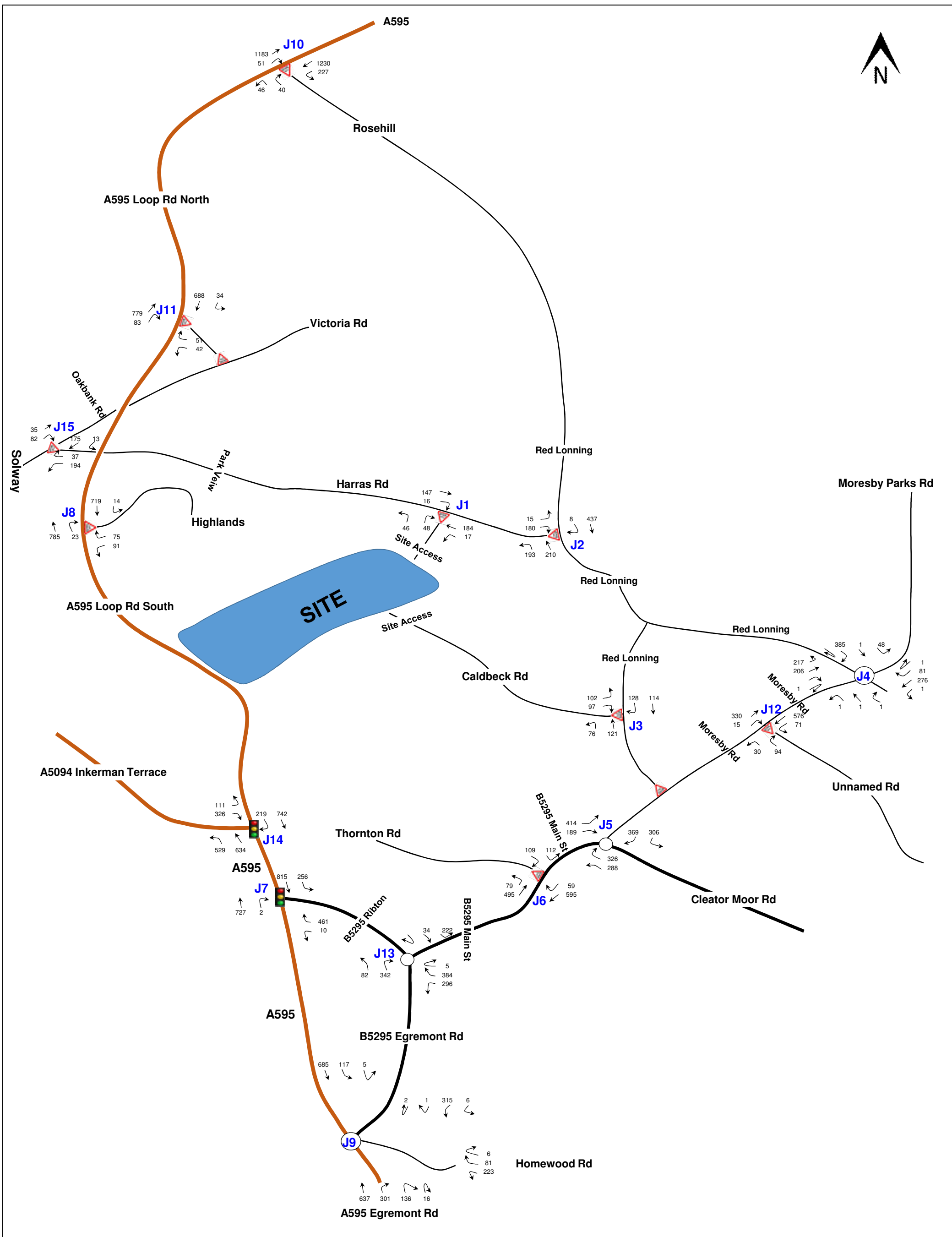


Fig 16: AM Peak Hour 2023 With Development Flows

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH

TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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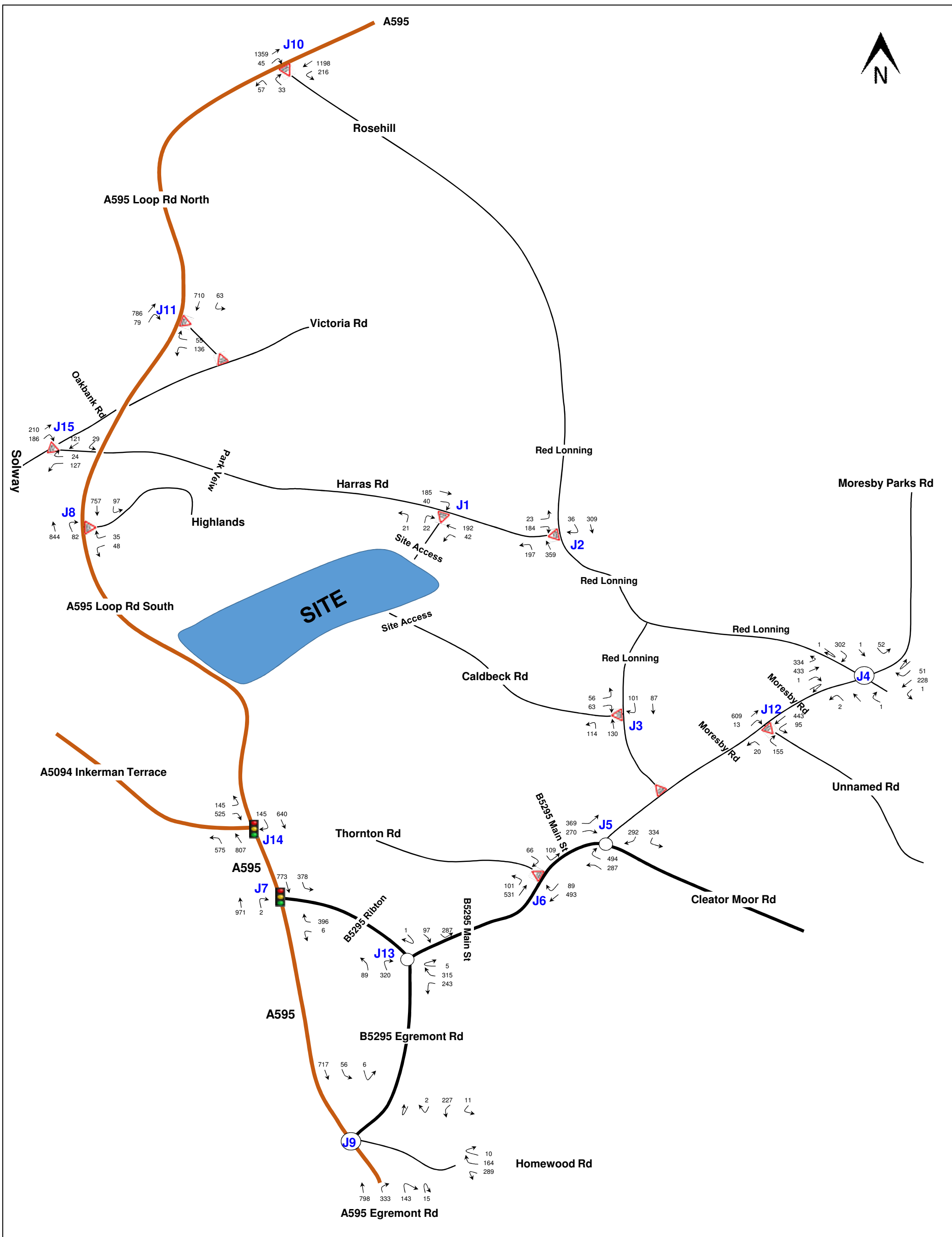


Fig 17: PM Peak Hour 2023 With Development Flows

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
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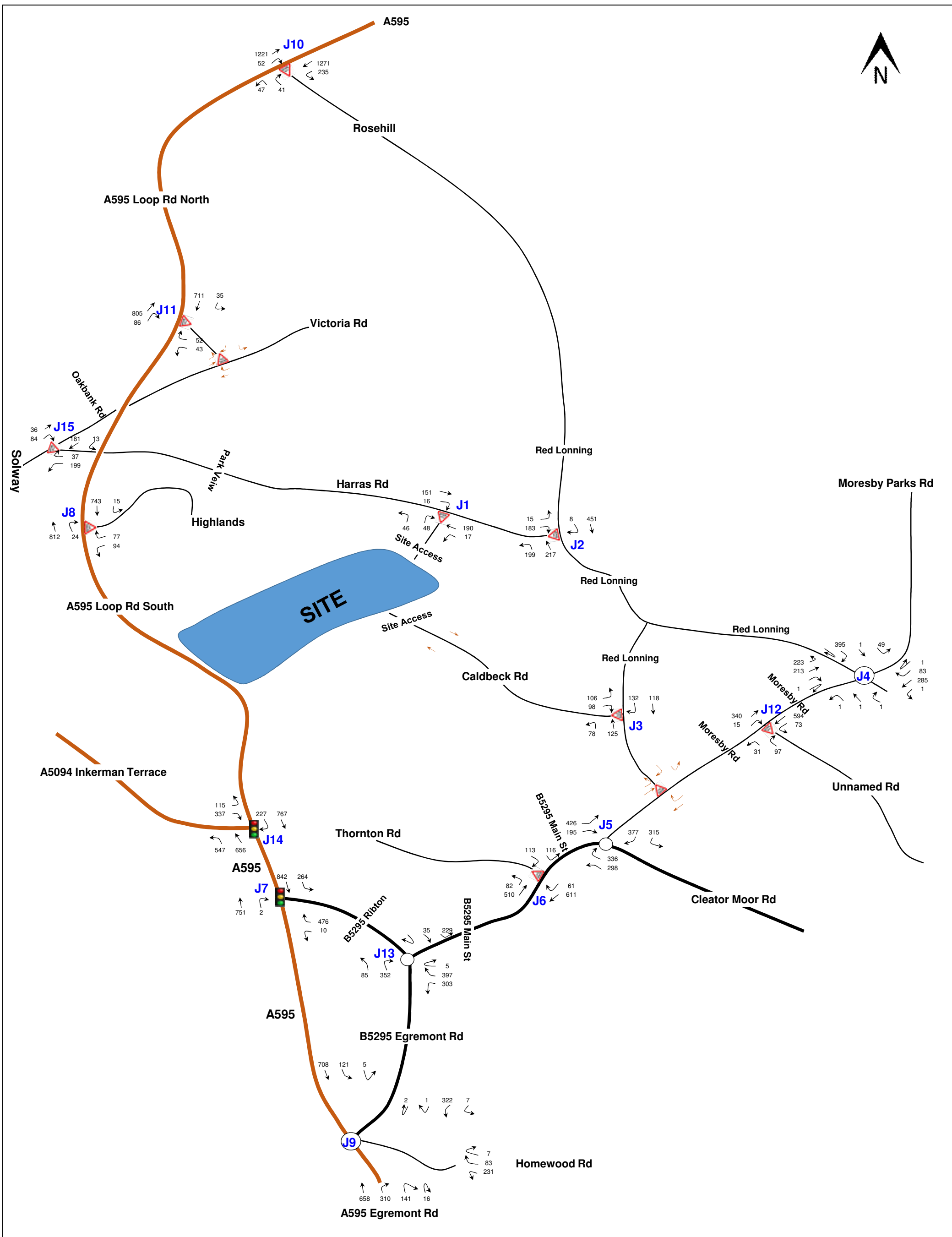


Fig 18: AM Peak Hour 2028 With Development Flows

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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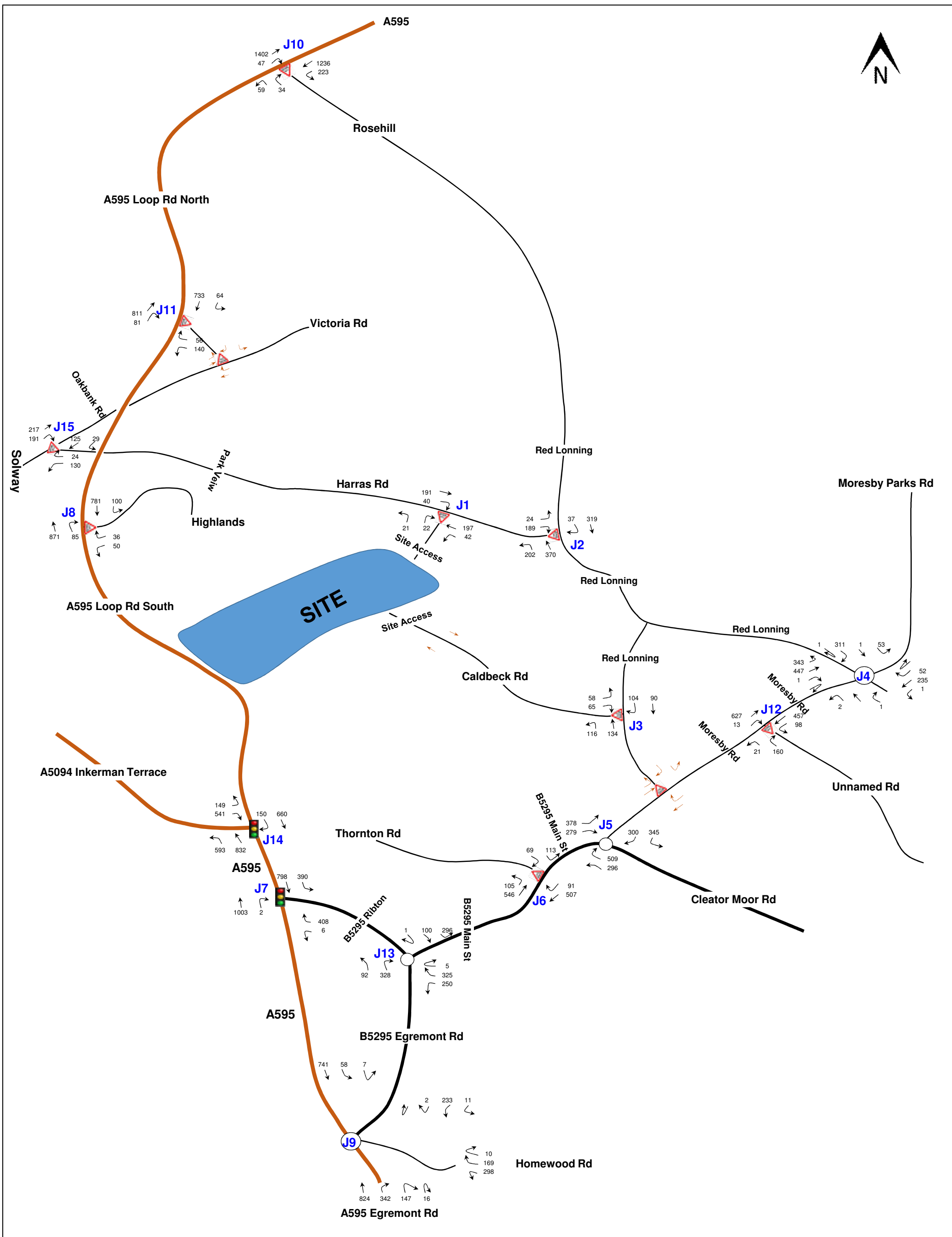


Fig 19: PM Peak Hour 2028 With Development Flows

Job no. A090070 - 410 Harras Road, Harras Moor, Whitehaven

QUAY WEST AT MEDIACITY UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



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Appendices



Appendix A – Post Submission Comments & Scoping Correspondence

Comments – Transport Assessment

Harras Moor, Whitehaven: Outline planning for up to 370 dwellings

The 'red text' is WYG's response to the Highway Authorities comments (25/07/2018)

1. Section 3.3 describes the local highway network. The description restricted to minor roads in the immediate vicinity of the site (with the sole exception of the A595), and does not include descriptions of Moresby Parks Road or the B5295 which we consider it should. **This can be undertaken if necessary. Yes this is considered necessary.**
2. Section 3.4 reviews the accident history on the highway network near the proposed site. The review is not undertaken using up-to-date data, and excludes the previous two years history. The review has also not been undertaken in line with the proposed trip generation, which would highlight routes where an increase in traffic is forecast, and does not include the roads referred to above. A brief review of the accident statistics in the wider area suggests that there are clusters of accidents at the Moresby Parks Road/Red Lonning priority junction, and the B5295 Cleator Moor Road/Moresby Parks Road mini-roundabout should be included. There are also numerous accidents close to the access/egress of Whitehaven Academy and along the B5295 towards Hensingham. The accident review should cover an expanded area using more recent data, and any identified clusters should be analysed for potential existing safety issues. **This can be undertaken if necessary. Yes this is considered necessary.**
- 3.
4. The CIHT provides guidance about journeys on foot. Suggested acceptable walking distances are summarised in the table below.

Table 3.2: Suggested Acceptable Walking Distance.			
	Town centres (m)	Commuting/School Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1000	800
Preferred maximum	800	2000	1200

The isodistance maps should be update according to these criteria.

The site is accessible for commuting/school purpose trips only.

Due to the distance from local amenities and public transport (700 m), the site is not considered accessible by foot. It is 700 metres to nearest bus stop which ideal given size of the site (Is site designed to permit a bus lop throughout) and requires some further consideration.

The isodistance maps can be updated accordingly if required although it should be noted that the CIHT distances are 'guidance' and 'suggested' distances only. For the

reasons given below, we consider that it is important to include a 2km isochrome, as we have currently shown on the walking catchment plan.

We disagree with the statement that the site is “*not considered accessible by foot*”,

As stated in the TA, 2km is a distance that people are generally prepared to walk to access an amenity. Furthermore, Manual for Streets, states at para 4.4.1. that *‘Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes’ (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPS134 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km’.*

This provides evidence that people are prepared to walk 2km to access an amenity. The TA shows that the majority of Whitehaven town centre, with all of its amenities and facilities, falls within the 2km walking distance of the site and therefore the site is accessible by foot.

We agree that it is important to include a 2km isodistance map, because it shows the preferred maximum distance for commuting/school trips.

Although “*walking offers the greatest potential to replace short car trips, particularly those under 2 km*”, the maximum preferred distance is 1200m. It should be noted that the high gradient would discourage walking and cycling.

5. The base year for the TEMPro growth factors calculation is 2017, the traffic surveys have been undertaken in 2018.
There is a typo in the TA, it should say 2018. The growth rate used is correct (2018 to 2023).
6. It is considered that the forecast year of 2023 not appropriate (and has not been agreed in the previous scoping documentation); the application is outline, and full 370 dwellings could not be constructed within five years of an outline application. It is suggested that a forecast year of 10 years would be appropriate.

We strongly disagree with this statement. It was quite clear in our email to Pieter Barnard dated 17th of January, that we were proposing to assess the junctions for an assessment year 2023. No correspondence requesting any other assessment year was received and assessing the junctions for a forecast year 10 years’ hence, has never previously been mentioned or requested.

Using an assessment year of 2023 (5 years after the date of registration of the planning application) is in line with standard practice.

It is unrealistic that 370 dwelling would be built and the development fully operational within five years. The now superseded document *Guidance on Transport Assessment* stated that the forecast year should be “no less than five years after the date of registration of the planning application. Should the development take place

over a longer period, it would be appropriate to extend the length of the assessment period”.

Due to the size of the development, a forecast year of 10 years is appropriate. It is also noted that this is the forecast year usually required by Highways England, and we are happy for this future year to be considered across the local network too for consistency.

7. The proposed development access and the access of the consented residential development on land off Harras Road opposite to this site (application ref: 4/16/2416/001 and 4/16/2415/001) should be modelled as a staggered junction. There is circa 70m distance between the two junctions. It is not general practice to assess two junctions this far apart as a 'staggered' junction. Modelling junctions as 'staggered' junctions is generally undertaken only where junctions are 20m or less apart.

Furthermore, the TA shows that the proposed site access junction is forecast to operate at significantly below its capacity (max RFC of only 0.210). Modelling the junction as a staggered junction, particularly when they are so far apart will not change the results of the assessments.

Accepted.

8. B5295 Cleator Moor Road/Moresby Park Road over capacity, and worsened with development; requires mitigation. ARCADY uses DIRECT flow profile, whereas ONE HOUR should be used for forecast scenarios (and base scenario without appropriate validation). Noted that ONE HOUR flow profile has been used for all other priority and roundabout junctions.

The TA shows that the junction operates within capacity with a maximum RFC value of 0.980 during the AM peak period. The results also show that the development is only forecast to increase average delay at the junction by 18.7 seconds per vehicle. This level of increase in delay is not significant or severe in NPPF terms and therefore the applicant is not required to provide mitigation at the junction.

Given that the junction is operating at close to its capacity, direct flows were used in this instance to provide more accurate modelling. This is because a 'one-hour' flow profile can provide an excessively high flow during the middle of the hourly period due to the way the ARCADY model synthesises the flow profile.

It should be noted that the base model was validated against queue data and we therefore consider that the model provides an accurate representation of the junction operation.

No validation of the base model has been provided in the transport assessment. Care should be used when attempting the validation of a model using queue lengths; TRL Knowledge Base Article 13 provides more information.

DIRECT flows are not “more accurate”; it is simply an option that allows the traffic flow to be input in a different manner (by *directly* considering variations in traffic flow per 15-minute period). However, given that surveys were only undertaken on a single day, there is not enough evidence for this method to be used, as it is unknown whether the random day-to-day variation on the day of the survey is indeed representative of average traffic conditions. This is especially important when forecasting, as it does not necessarily hold that the variations experienced today would be consistent in the future. The ONE HOUR method adds robustness by assuming a fixed uplift during the middle of the modelled hour. Given the uncertainty and lack of data to support the DIRECT method, ONE HOUR should be used, as it has been for all other junctions.

The delays at this junction in the 2023 would be unacceptable, with level of services E and F. This corresponds to unstable flow, and forced or breakdown flow, respectively. It is also noted that the average maximum queue would nearly double in the morning peak period, and the average increase in delay quoted is overall average delay; the actual increase in average delay on the overcapacity Cleator Moor Road approach is a near doubling to over 82 seconds per vehicle, which is excessive for a non-signalised junction (and also a doubling to 40 seconds per vehicle on Moresby Parks Road). These values would be higher (worse) if the forecast year and traffic flow input were corrected.

Given the unsuitable assumptions made with regards to forecast years and traffic flow input; and that even despite these assumptions, the junction is shown to operate with a Ratio of Flow to Capacity (RFC) of greater than 0.85 (which is generally the maximum acceptable RFC due to the variations in traffic flow, and is the threshold in Junctions above which the RFC is highlighted red!); and that the level of service is F (forced or breakdown flow); and the average maximum queue nearly doubles in the peak; and the local highway network otherwise operates acceptably in the immediate vicinity of this junction, then mitigation is required at this location.

9. A595/B5295 Egremont Road/Homewood Road roundabout (HE junction) over capacity, and we would support mitigation at this location.

The TA shows that the junction is not operating at over its capacity, but just within capacity with a maximum RFC of 0.980 during the PM peak period. The results also show that the impact of the development at this junction during this peak period would only increase average delay by 12.7 seconds per vehicle. This level of increase in delay is not significant or severe in NPPF terms and therefore the applicant is not required to provide mitigation at the junction.

Whilst as noted this is a Highways England junction, it should be noted that the development would have a considerable impact on this junction, worsening the level of service from C (stable flow) to E (unstable flow) in the 2023 PM and doubling the average delay on the A595 (S) arm to nearly 60 seconds.

10. Appendix A - Scoping Correspondence includes the “Technical Note 1: Trip Rates and Trip Distribution - Proposed Residential Development at Harras Moor, Whitehaven” only; no comments have been included.

I'm not sure what the comment is referring to?

A stated in bullet point 5, all the previous correspondence should be attached, including the communication with Highways England.



Developments Affecting Trunk Roads and Special Roads

Highways England Planning Response (HEPR 16-01)

Formal Recommendation to an Application for Planning Permission

From: Alan Shepherd – Divisional Director
Network Delivery and Development
North West Region
Highways England
planningNW@highwaysengland.co.uk

To: Copeland Borough Council

CC: transportplanning@dft.gsi.gov.uk
growthandplanning@highwaysengland.co.uk

Council's Reference:

Referring to the notification of a planning consultation dated 31st July 2018 for, up to 370 dwellings and associated works on land at notice is hereby given that Highways England's formal recommendation is that we:

- ~~a) offer no objection;~~
- ~~b) recommend that conditions should be attached to any planning permission that may be granted (see Annex A – Highways England recommended Planning Conditions);~~
- c) recommend that planning permission not be granted for a specified period (see Annex A – further assessment required);
- ~~d) recommend that the application be refused (see Annex A – Reasons for recommending Refusal).~~

Highways Act Section 175B is / is not relevant to this application.¹

¹ Where relevant, further information will be provided within Annex A.

This represents Highways England formal recommendation and is copied to the Department for Transport as per the terms of our Licence.

Should you disagree with this recommendation you should consult the Secretary of State for Transport, as per the Town and Country Planning (Development Affecting Trunk Roads) Direction 2015, via transportplanning@dft.gsi.gov.uk.

Signature:

Warren Hilton

Date: 20th August 2018

Name: *pp* Ryan Billinge

Position: Assistant Asset Manager

Highways England:

8th Floor, Piccadilly Gate, Store Street, Manchester M1 2WD

Annex A **Highways England recommended Planning Conditions /**
~~Highways England recommended further assessment required /~~
~~Highways England recommended Refusal.~~

HIGHWAYS ENGLAND (“we”) has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

The site, which is currently largely green fields, is located around 1.3km east of Whitehaven town centre on land south of Harras Road and is situated between existing residential development and an industrial development.

There is little relevant planning history on the site. There are only two relevant applications, one which relates to land on the south-west part of the site and was withdrawn in 2014 without being determined and another that relates to land, not on the site but on an adjacent parcel of land that lies just north of Harras Road.

Two outline applications (application numbers 4/16/2415/001 and 4/16/2416/001) for a total of 110 residential dwellings were submitted in November 2016 for this site and were approved. The TA takes into account of these applications.

The proposed development site has a small frontage with the A595 along the site’s western boundary. Near the site, the A595 is around 7.5m wide has footways on both sides of the road and is subject to a 40mph speed limit. The A595 is the primary vehicular route through Whitehaven and links Whitehaven to Sellafield and Barrow-in-Furness approximately 14km and 50km respectively to the south, and to Workington and Carlisle and the M6 approximately 8km and 55km to the north east.

Background

Previous Consultation / Scoping

We undertook a review (ref: 5150363.997 Harras Moor – 13/02/2018) of a Trip Rates and Trip Distribution Technical Note (dated 17th January 2018) provided by WYG for the proposed development of up to 450 dwellings at Harras Moor. The key comments provided by Highways England on the information provided are summarised under the following sub-headings.

Traffic Generation

The WYG proposed vehicular trip rates are reproduced in the table below. We reviewed the TRICS database and concluded that the rates were appropriate.

Table 1 – Proposed Vehicular Trip Rates

Morning Peak Hour			Evening Peak Hour		
Arrivals	Departures	Total	Arrivals	Departures	Total
0.156	0.437	0.593	0.381	0.198	0.579

Traffic Distribution and Assignment

The 2011 Census Journey to Work and a route planning website were used to provide an understanding of the likely assignment of trips to individual access routes. We considered this methodology to be reasonable.

The Middle Super Output Area (MSOA) 'Copeland 003' has been used to distribute development trips to the wider network, including the SRN. We reviewed the work undertaken and concluded that the methodology used was reasonable.

Scope of Assessment

Given the additional development traffic assumed to route via the Rosehill 'T' junction (junction reference 10), Highways England requested that this junction is surveyed and included in the operational assessments.

Traffic surveys were proposed to be undertaken between 07:30-09:30 and 16:30-18:30, during the week commencing 19th February 2018, as agreed with the Local Highway Authority (Cumbria County Council). **We recommended that the Evening Peak surveys commence at 16:00 rather as it was felt that 16:00-17:00 hour is consistently the busiest period for the A595 based on the evidence held at the time.**

Review of Transport Assessment

Personal Injury Accident Review

The TA includes a review of personal injury as a result of accidents within the vicinity of the site using www.crashmap.co.uk. Highways England has utilised the same website to examine if there are any other areas within the developments locale or routes / junctions that development trips utilised, including junctions that are within the operational assessment.

We recommend that the scope of the PIA assessment is extended to all the junctions on the SRN that have been included in the operational assessment.

Trip Generation

The proposed vehicular trip rates are reproduced in the table below along with the resultant trips based on 380 houses as opposed to the 370 proposed for apparent robustness.

Table 1 – Proposed Vehicular Trip Rates

	Morning Peak Hour			Evening Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Rates	0.156	0.437	0.593	0.381	0.198	0.579
Trips	59	166	225	145	75	220

As these calculations are in line with the previously agreed methodology, they are agreed as robust.

Trip Distribution and Assignment

It is noted that WYG have amended the trip assignment based on comments from the Local Planning Authority. **Although there are a large number of individual comments, the impact of the amendments with regards to the developments impact on the SRN are thought to be inconsequential and so the distribution and assignment is agreed.**

Traffic Impact Assessment

Operational assessments have been undertaken at the Application Year plus five years which is 2023. **However, the inclusion of an opening year and review period assessment in line with DfT Circular 02/2013 is required by Highways England for the junctions of interest to Highways England.** For the avoidance of doubt, those junctions are J7,J8,J9,J10,J11 and J14.

It is also requested that soft copies of each of the models is supplied to Highways England for review.

Review of Framework Travel Plan

A Framework Travel Plan (TP) has been produced for the site.

The aim of the TP is to at least match the modal split for Copeland where surveys have shown that over 83% of people either drive or are a passenger in a car when travelling to and from work. This target is therefore felt to not be particularly robust.

A travel survey will be conducted once 50% of the proposed dwellings have been occupied to establish how site users make journeys to and from the site. The results of the surveys will provide a valuable 'baseline' against which the success of the TP in reducing car journeys and increasing journeys by walking, cycling and public transport can be measured.

The monitoring and review programme will be designed to generate information by which the TP can be evaluated, revised, developed and improved, over a period of 3 years. **This is felt to be robust.**

Highways England Conclusion & Formal Recommendation

Operational assessments should be undertaken at opening year and review period assessment in line with DfT Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development', which is a formal policy requirement.

The subsequent modelling should be provided for review in soft copy with an updated TA for Highways England to review.

In order to allow time for the work requirements highlighted within this Notice to be completed by the applicant and reviewed by Highways England, we now formally recommend that this application is not determined until at least 19th October 2018. Should this be completed to our satisfaction before this date, Highways England will notify Copeland Borough Council in writing that the application may be determined sooner.

This response represents our formal recommendations with regard to this application and has been prepared by Warren Hilton on behalf of Ryan Billinge.

Your ref: Harras Moor
Our ref: 5150363.997

Tel: +44 (0)161 245 3400
Fax: +44 (0)161 245 3500
Ext no: 0161 245 3420

Lindsay Alder
Assistant Asset Manager
Highways England
Piccadilly Gate
Store Street
Manchester
M1 2WD

info@atkinsglobal.com
www.atkinsglobal.com

13 Feb 2018

Dear Lindsay

Harras Moor, Whitehaven

Further to recent correspondence with Mike Smith of WYG regarding development proposals for a site at Harras Moor, Whitehaven, I write to provide our formal comments on the Trip Rates and Trip Distribution Technical Note (dated 17th January 2018) provided by WYG. The Technical Note covers the proposed traffic generation and distribution assumptions for the site, and informs future traffic survey requirements and the extent of junction assessments to be included in a future Transport Assessment. We would welcome the opportunity to comment on wider aspects of the scope of a future Transport Assessment, in order to ensure that the assessment parameters are agreed in advance of any future planning application.

Development and Access Proposals

The Technical Note advises that proposals for the site envisage delivery of up to 450 new residential dwellings. The Technical Note outlines the proposed access strategy for the site. Although previous correspondence with Highways England sought comments in respect of a potential development access onto the A595 Loop Road South, the revised access strategy seeks to take access from the local highway network only, via Caldbeck Road and Harras Road. As a consequence, it is no longer proposed to create a new access junction onto the A595 which forms part of the Strategic Road Network (SRN).

Traffic Generation

WYG have reviewed the TRICS database to derive proposed vehicular trip rates for assessment purposes. The proposed vehicular trip rates are presented in **Table 1**. Atkins have reviewed the TRICS database and would conclude that the proposed trip rates are appropriate for use.

Table 1 – Proposed Vehicular Trip Rates

Morning Peak Hour			Evening Peak Hour		
Arrivals	Departures	Total	Arrivals	Departures	Total
0.156	0.437	0.593	0.381	0.198	0.579

On the basis of the supplied trip rates, a development of 450 dwellings would generate 267 two-way vehicular trips in the morning peak hour, and 261 two-way vehicular trips in the evening peak hour.

Traffic Distribution

WYG have used 2011 Census Journey to Work data to estimate the distribution of traffic generated by the proposed development. A route planning website has then been used to provide an understanding of the likely assignment of trips to individual access routes. The approach to trip distribution and assignment is considered reasonable for use.

2011 Census Journey to Work data has been analysed for the Middle Super Output Area (MSOA) 'Copeland 003' which covers the proposed development site and surrounding housing. Journeys to work generated by the Census area have been assigned to a number of alternative access routes to the local highway network. Five of the assumed access routes would impact on junctions with the A595, with traffic making onwards journeys on the SRN:

- Route F via A595/ B5295 Ribbon Moorside (junction reference 7);
- Route D via A595/ Highlands (junction reference 8);
- Route B1 and B2 via A595/ B5295 Egremont Road/ Homewood Road (junction reference 9);
- Route A via A595/ Rosehill 'T' junction (reference 10); and
- Route I via A595/ Victoria Road (Sunny Hill pub) 'T' junction (reference 11)

The assumed share and volume of development traffic impacting on each route and associated SRN junction is reproduced in **Table 2**.

Table 2 – Assumed Assignment of Development Traffic Routeing

Reference	Junction Description	Percentage Share	Estimated Development Traffic Generation	
			Morning Peak Hour	Evening Peak Hour
J7	A595/ B5295 Ribton Moorside	3.4%	9	9
J8	A595/ Highlands	0.4%	1	1
J9	A595/ B5295 Egremont Road/ Homewood Road	50.5%	136	133
J10	A595/ Rosehill 'T' junction	21.5%	58	57
J11	A595/ Victoria Road 'T' junction	6.8%	19	19

Atkins have reviewed the Census data analysis and trip assignment process undertaken by WYG. Using the same Census MSOA as adopted by WYG, Atkins analysis has returned a similar distribution of development trips. Consequently, it is concluded that the proposed development traffic distribution presented by WYG (and summarised in **Table 2** in respect of the SRN), is reasonable for assessment purposes.

Assessment Locations and Time Periods

On the basis of the trip distribution analysis, WYG have proposed to undertake traffic surveys at a range of locations. The locations include the junction of the B5295 Egremont Road/ Homewood Road with the A595 (WYG junction reference J9). However, given the additional development traffic assumed to route via the Rosehill 'T' junction with the A595 (junction reference 10), Atkins have requested that this junction is also surveyed to allow future operational assessments. This junction should be included in future data collection.

WYG have indicated that traffic surveys are to be undertaken between 07:30-09:30 and 16:30-18:30, during the week commencing 19th February 2018. We understand that the proposed survey week has been confirmed with the Local Highway Authority. With reference to WebTRIS data analysis included in the WYG Technical Note, we would recommend that the surveys commence at

16:00 rather than 16:30, given that the 16:00-17:00 hour is consistently the busiest period for the A595. Surveys should be undertaken on a neutral weekday (ie, Tuesday, Wednesday or Thursday). Highways England are not aware of any roadworks planned on the A595 in the Whitehaven area during this week, but the Local Highway Authority should also be contacted to understand whether any planned roadworks could affect traffic patterns.

Analysis of WebTRIS data appended to the WYG Technical Note compares weekday traffic levels with weekend levels. Whilst traffic levels on the A595 around the Saturday lunch period are shown to be high, they are lower than traffic levels during the traditional weekday commuter periods, and the combination of weekday peak traffic levels and background traffic is anticipated to provide the worst case assessment basis. On this basis, it is accepted that junction capacity assessments are not required for the Saturday or Sunday.

Key Findings

On the basis of the information presented in the submitted WYG Technical Note, and subsequent email correspondence with Mike Smith of WYG, we would highlight the following:

- The development proposals would provide up to 450 new residential dwellings in the Harras Moor area of Whitehaven. Vehicular access would be taken from the local highway network only, and no access is proposed via new or amended junctions with the A595;
- The vehicular trip rates, trip generation, and trip distribution prepared by WYG are considered suitable for use, and should be carried forward into the subsequent Transport Assessment;
- WYG intend to undertake traffic surveys to support future assessment during the week commencing 19th February 2018. On the basis of the submitted traffic routeing, it is requested that traffic survey data is collected not only for the junction of the B5295 Egremont Road/Homewood Road with the A595 (WYG junction reference 9), but also for the Rosehill 'T' junction with the A595 (WYG junction reference 10). It is also recommended that traffic surveys commence at 16:00 rather than 16:30 as proposed by WYG; and
- Highways England would welcome the opportunity to comment on wider aspects of the scope of a future Transport Assessment, in order to ensure that the assessment parameters are agreed in advance of any future planning application.

Yours sincerely,
For and on behalf of ATKINS Limited



Andy Beel

Subject: FW: Proposed residential Development, Harras Moor

From: [Barnard, Pieter GF](#)

Sent: 24/01/2018 13:06

To: [mike.smith](#)

Cc: [Murray, Gavin R](#)

Subject: RE: Proposed residential Development, Harras Moor

Mike

Following on from the email below , I have received some additional comments from my modelling team –

The scoping report is generally good, with the TRICS and distribution methodology looking fine. We do have some queries regarding the methodology for trip assignment though. These mainly relate to the assignment not really considering the employment centres in the big MSOA zones:

- *Trips to Copeland 002 (Whitehaven town centre) should have a higher proportion of trips travelling routes E and F, and less (or even none) on route I as there aren't really any trip attractors in Bransty*
- *Trips to Copeland 003 ignore the main trip attractors in the area, which is principally the West Cumberland hospital, but also Whitehaven Commercial Park in Moresby, and no trips should be assigned via route G (this only covers a few houses in Moresby Parks)*
- *Trips to Copeland 004 (Cleator Moor) should go via route C (and we would expect more trips to use the main route via the B5295)*
- *Trips to Copeland 005 (Kells/Mirehouse) should mostly use route D and F*
- *They might need to consider sensitivity tests for the split between accesses and routes if any junctions are close to capacity*

The analysis should also be mindful of congestion issues around the secondary schools in Whitehaven.

For junctions, I would also expect them to consider the B5295/Main Street mini-roundabout in Hensingham (via route B/F). They should also consider the operation of the Solway View/Oakbank Road/Park View junction (route E), and the Moresby Parks Road/unnamed route (route C2) if traffic is expected to use this route.

Given the impact on the A595, I'd expect Highways England may have some comments on the trip assignment too, and I'm happy to try to align our views with any comments they might have where possible. Personally, I'd have expected a development of this size to consider the A595/Inkerman Terrace (no ref) and A595/Ribton Moor Side (J7) linked junctions, and the A595/Rosehill junction (J10 – the applicant claims 58 trips is not significant, which is not the case)

Regards

Pieter Barnard
Lead Officer – Flood and Development Management

From: Barnard, Pieter GF
Sent: 24 January 2018 11:43
To: 'mike.smith'
Cc: Murray, Gavin R
Subject: RE: Proposed residential Development, Harras Moor
Importance: High

Hello Mike

I think we mentioned in earlier emails that your study area seem too south orientated.

It is our strong preference that this should link to The Highlands. Development of this land was always envisaged to create a link between the highlands, Caldbeck road and Harras rd/Haul rd. Although some of them is still the subject of a sec 38 agreement , I am content that these should be seen as Highway, please find attached the current sec 38 for the site , showing highway to the boundary.

There is also potential for connection onto the adjacent hillside estate too.

I note that all of the junctions proposed for assessment are south of the site, none north of the site ? I think Harras road, Victoria road and rose hill will be impacted by the development. I think the residents on Harras moor will be very concerned about increased traffic movements, you might want to consider ways of mitigating this in the design.

If you connect through to the highlands, then there is potential for creation of a new commercial bus route.

On your distribution the following notes –

- The greatest proportion of the trips to Carlisle, Allerdale and Eden(and all the trips assigned to Route A) is expected to go on Route I.
- The southbound trips (routes B1 and B2) should not be equally distributed between the two accesses; a greater proportion is expected to egress from the southbound access.
- No trips were assigned to Moresby Park Road.
- No trips to Copland 003 should be assigned to Route G.
- Route C2 is a minor Road more trips are expected to be assigned on C1.

LSOA	Routes
Copland 001	A I G and additional route on Moresby Parks Road
Copland 004	C1 and C2

According to table 3 the volume of traffic estimated to be generated by the proposed development at J 11 should be 19 vehicle (two-way) in both AM and PM peak hours respectively and not **11 PCU**. This junction should be modelled because, most of the trips assigned to route A should be assigned to route I instead, so the effect is not negligible.

Further junctions to be modelled:

- B5295 / Main Street;
- A595/Inkerman Terrace/ Hensingham Road
- B5295/Dalzell Street
- Moresby Road / Unnamed road (in the figure below).
- Highlands / Loop Road S

Pieter Barnard
Lead Officer – Flood and Development Management

Environment & Regulatory Services | Cumbria County Council
Parkhouse Building| Baron Way | Carlisle | CA6 4SJ
Tel - 07768 272394
www.cumbria.gov.uk

From: mike.smith [<mailto:mike.smith@wyg.com>]
Sent: 24 January 2018 09:29
To: Barnard, Pieter GF
Cc: yujing.liu
Subject: RE: Proposed residential Development, Harras Moor

Morning Pieter

I hope you are well.

Further to my email last Wednesday (below), are you able to provide me with an indication of when you will be able to respond so that I can get the traffic count people lined up?

Many Thanks

Mike

Mike Smith
Associate

WYG

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: +44 161 874 8745

Mob: +44 7789 271 777

www.wyg.com



From: mike.smith
Sent: 17 January 2018 16:13
To: 'Barnard, Pieter GF' <Pieter.Barnard@cumbria.gov.uk>
Cc: yujing.liu <yujing.liu@wyg.com>
Subject: Proposed residential Development, Harras Moor [Filed 17 Jan 2018 16:13]

Afternoon Pieter,

I hope you are well.

Further to our recent correspondence in connection with the above proposed development we have prepared a technical note setting out the estimated trip generation and distribution to help agree the scope of the TA, and in particularly the extent of junction capacity assessments that will need to be undertaken.

To confirm recent correspondence, the proposed development will consist of a maximum of 450 dwellings with vehicular access/egress to the site proposed via Caldbeck Road and Harras Road.

We propose to prepare a Transport Assessment which will cover the following:

1. Review of the existing local highway network;
2. Review of related national and local policy;
3. Carry out accident analysis within the vicinity of the site using the Crashmap website (local highway authority to confirm);
4. Undertake a detailed assessment of the accessibility of the site by sustainable modes (i.e. on foot, by cycle and public transport);
5. Describe the development proposals and access arrangements;
6. Derive the proposed development's trip generation and distribution - as per the attached technical note incorporating any comments you may have.
7. Determine the volume of traffic likely to be generated from committed developments in line with NPPG (i.e. that there is a reasonable degree of certainty that they will proceed within the next three years). I'd be grateful if you could confirm whether there are any committed developments that fulfil this criteria that we should include?
8. Apply future year traffic growth using TEMPRO growth factors for a future assessment year 5-years from the date of registration of the planning application, (assumed to be 2023);
9. Based on the results of the attached technical note, collect peak hour traffic data and undertake weekday AM and PM peak hour capacity assessments at the following junctions for the assessment year 2023.
 - i. Proposed new site access junction on Harras Road
 - ii. Harras Road / Red Lonning
 - iii. Red Lonning / Caldbeck Road

- iv. Red Lonning / Moresby Road
- v. Moreby Road / Cleator Moor Road / Main Street
- vi. Main Street / Thornton Road
- vii. A595 / B5295 Egremont Road / Homewood Road

10. Prepare a comprehensive TA on the above basis.

11. Prepare a Framework Travel Plan

I'd be grateful if you could confirm that the Scope set out above is sufficient to accompany the future planning application at your earliest convenience, particularly confirming the extent of traffic counts required as we would like to undertake these early February. Alternatively, I'd be grateful for any comments/clarifications you may have.

In the meantime, if you require any further information/clarification please do not hesitate to contact me.

I'll be sending the same technical note and Scope to Highways England.

Many Thanks

Mike

Mike Smith

Associate

WYG

Quay West at MediaCityUK, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH

Tel: +44 161 874 8745

Mob: +44 7789 271 777

www.wyg.com

WYG Environment Planning Transport Limited. Registered in England number: 3050297.

Registered Office: Arndale Court, Otley Road, Headingley, Leeds, West Yorkshire LS6 2UJ. VAT No: 473-2380-49.



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Technical Note 1: Trip Rates and Trip Distribution - Proposed Residential Development at Harras Moor, Whitehaven

Project Number: A090070 - 410

Date: 17th January 2018

1. Introduction

- 1.1 This Technical Note (TN1) has been prepared to provide information to the local highway authority (LHA), Cumbria County Council (CCC), and Highways England (HE), on the potential trip generation and distribution of a proposed residential development at Harras Moor, Whitehaven.
- 1.2 Based on the derived trip generation and distribution, the aim of this note is to agree with the LHA and HE the extent of junction assessments required for the future Transport Assessment (TA) which will be prepared to accompany the application.

2. Site Location and Proposed Development

- 2.1 The location of the proposed development site is shown in **Figure 1** below. At this stage, the masterplan for the site is still being developed, however it is envisaged that a maximum of 450 dwellings could be provided on the site although the eventual number is likely to be lower.
- 2.2 In terms of vehicular access, discussions have previously been undertaken with the LHA and as a result of these it is likely that vehicular access into the site will be provided from two points. Via an extension into the site from the existing Caldbeck Road and via a new junction provided into the site from Harras Road. The potential access points are indicated in **Figure 1**.

Figure 1: Site Location and Proposed Access Points



3. Vehicular Trip Rates and Trip Generation

- 3.1 The TRICS database (2018 V7.4.4) has been interrogated to establish average trip rates for the proposed development. For the purpose of this exercise, it has been assumed that there will be 450 dwellings (although this is likely to be eventually lower) and all dwellings will be privately-owned houses so as to ensure robust assessments.
- 3.2 The trip rates have been derived in line with the best practice guidelines from the TRICS Good Practice Guide 2016 (GPG). The methodology used to derive appropriate trip rates for the proposed development were as follows:
- The proposed land use category (C3 houses privately owned) was selected from the main menu. Multi-modal trip rates were selected for the proposed land use.
 - In 'region selection', Greater London, Republic of Ireland and Northern Ireland were excluded.
 - Number of dwellings was set to more than 200 dwellings.
 - Survey Date was set back to year 2000 to include more survey sites.
 - Any surveys which took place on a Saturday or Sunday were excluded.
 - In location type - 'Suburban Area', 'Edge of Town' and 'Neighbourhood Centre' were selected based on the site location.
 - In Car Ownership < 5miles, '1.1 to 1.5' was selected due to the car ownership of the area, which is 1.30 cars per household.
- 3.3 The resulting trip rates and trip generation of the proposed development in the weekday AM and PM peak periods are presented in **Table 1** and **Table 2** respectively. The full TRICS outputs are presented in **Appendix A**.

Table 1: Vehicular Trip Rates of the Proposed Residential Development (450 dwellings)

Proposed Land Use	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
	Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
C3 Houses Privately Owned (Per Dwelling)	0.156	0.437	0.593	0.381	0.198	0.579

Table 2: Vehicular Trip Generation of the Proposed Residential Development

Proposed Land Use	Unit	AM Peak Hour (0800-0900)			PM Peak Hour (1700-1800)		
		Arr.	Dep.	2-Way	Arr.	Dep.	2-Way
C3 Houses Privately Owned	450 dwellings	70	197	267	172	89	261

- 3.4 As shown in **Table 2**, the proposed residential development is estimated to generate circa 267 two-way trips during the weekday morning peak hour and 261 two-way trips in the evening peak hour.

4. Trip Distribution based on 2011 Census Data

- 4.1 A trip distribution has been derived based on the 2011 Census 'journey to work'. This dataset contains information on the location of employment and the method of travel. It contains origin-destination data at the Middle Super Output Area (MSOA) level.
- 4.2 A filter was applied to only include data from residents of the 'Copeland 003' MSA, which is where the site is located (as shown in **Extract 1**).

Extract 3.1: 2011 Census Super Output Areas – Mid Layer Area (MSOA)



- 4.3 The dataset was further filtered to only include residents who commute to work by driving. The full data output from the 2011 Census is contained in **Appendix B**.
- 4.4 The most likely route (or routes) between the development site and employment areas has been identified using Google Map routing. The full analysis is contained in **Appendix B**. The resultant trip distribution is illustrated on the 'Distribution Plan' contained in **Appendix B**.

5. Resultant Trip Assignment

- 5.1 Based on the traffic distribution derived and shown in **Appendix B**, the traffic estimated to be generated by the proposed development during the weekday AM and PM peak periods has been assigned to the key junctions identified during previous discussions with the LHA and HE. The

volume of traffic assigned through each junction is summarised in **Table 3** below. The location of the key junctions is shown in the 'Distribution Plan' contained within **Appendix B**.

Table 3: Volume of traffic generated by the Proposed Development assigned through Key Junctions

Jun. Ref.	Jun. Description	Estimated Development Traffic Generation	
		AM	PM
J1	Harras Road Site Access Junction	171	167
J2	Harras Road / Red Lonning	133	130
J3	Red Lonning / Caldbeck Road	90	88
J4	Red Lonning / Moresby Road	72	71
J5	Moreby Road / Cleator Moor Road / Main Street	158	154
J6	Main Street / Thornton Road	153	150
J7	A595 / B5295 Ribton Moorside	9	9
J8	A595 / Highlands	1	1
J9	A595 / B5295 Egremont Road / Homewood Road	136	133
J10	A595 / Rosehill 'T' Junction	58	57
J11	A595 / Victoria Road (Sunny Hill Pub) 'T' Junction	19	19

5.2 **Table 3** shows that the volume of traffic estimated to be generated by the proposed development at junctions 7, 8, and 11, is negligible being only 9 PCUs (two-way), 1 PCU (two-way) and 11 PCUs (two-way) in both AM and PM peak hours respectively. Furthermore, the table also shows that the volume of traffic estimated to be generated by the proposed development through junction 10 is only one additional vehicle every minute, which again is unlikely to be significant and sever in NPPF terms.

5.3 Therefore, based on the increase in traffic flows at the junctions set out in Table 3, it is only proposed to collect traffic data and undertake junction capacity assessments at junctions 1, 2, 3, 4, 5, 6, and junction 9 as part of the future TA.

6. Saturday Assessments

6.1 Traffic data has been obtained from the 'Webtris' HE website for a traffic counter on the A595 just to the north of the site. This shows that the highest hourly traffic flows on a Saturday and Sunday are much lower than those occurring during a weekday peak period. The data showing this is attached in **Appendix C**.



- 6.2 It is therefore evident that the weekday peak periods will represent a 'worst case' and therefore no traffic counts are intended to be collected on a weekend nor any junction assessments for a weekend undertaken.



Appendix A

TRICS Outputs

Calculation Reference: AUDIT-705118-180111-0154

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 MULTI-MODAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	WS WEST SUSSEX	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
08	NORTH WEST	
	MS MERSEYSIDE	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: Number of dwellings
 Actual Range: 224 to 805 (units:)
 Range Selected by User: 200 to 805 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/00 to 02/03/17

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:

Tuesday	1 days
Thursday	4 days

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

Selected survey types:

Manual count	5 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	4
Neighbourhood Centre (PPS6 Local Centre)	1

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:

Residential Zone	4
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:

C3	5 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®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	2 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	2 days
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:

1.1 to 1.5	5 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:

Not Known	2 days
Yes	1 days
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	5 days

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

LIST OF SITES relevant to selection parameters

1	ES-03-A-01	MIXED HOUSES / FLATS	EAST SUSSEX
	OLD MALLING WAY		
	SOUTH MALLING		
	LEWES		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	491	
	Survey date: THURSDAY	29/03/01	Survey Type: MANUAL
2	MS-03-A-01	TERRACED	MERSEYSIDE
	PALACE FIELDS AVENUE		
	RUNCORN		
	Neighbourhood Centre (PPS6 Local Centre)		
	Residential Zone		
	Total Number of dwellings:	372	
	Survey date: THURSDAY	06/10/05	Survey Type: MANUAL
3	SF-03-A-02	SEMI DET. / TERRACED	SUFFOLK
	STOKE PARK DRIVE		
	MAIDENHALL		
	IPSWICH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	230	
	Survey date: THURSDAY	24/05/07	Survey Type: MANUAL
4	ST-03-A-03	MIXED HOUSES	STAFFORDSHIRE
	QUEENSVILLE		
	STAFFORD		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	224	
	Survey date: TUESDAY	04/07/00	Survey Type: MANUAL
5	WS-03-A-06	MIXED HOUSES	WEST SUSSEX
	ELLIS ROAD		
	S BROADBRIDGE HEATH		
	WEST HORSHAM		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	805	
	Survey date: THURSDAY	02/03/17	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.

WYG Group Quay West Salford Quays

Licence No: 705118

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.082	5	424	0.305	5	424	0.387
08:00 - 09:00	5	424	0.156	5	424	0.437	5	424	0.593
09:00 - 10:00	5	424	0.179	5	424	0.199	5	424	0.378
10:00 - 11:00	5	424	0.132	5	424	0.165	5	424	0.297
11:00 - 12:00	5	424	0.163	5	424	0.177	5	424	0.340
12:00 - 13:00	5	424	0.166	5	424	0.166	5	424	0.332
13:00 - 14:00	5	424	0.158	5	424	0.167	5	424	0.325
14:00 - 15:00	5	424	0.161	5	424	0.181	5	424	0.342
15:00 - 16:00	5	424	0.268	5	424	0.187	5	424	0.455
16:00 - 17:00	5	424	0.270	5	424	0.172	5	424	0.442
17:00 - 18:00	5	424	0.381	5	424	0.198	5	424	0.579
18:00 - 19:00	5	424	0.345	5	424	0.224	5	424	0.569
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.461			2.578			5.039

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:	224 - 805 (units:)
Survey date date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.002	5	424	0.002	5	424	0.004
08:00 - 09:00	5	424	0.002	5	424	0.001	5	424	0.003
09:00 - 10:00	5	424	0.006	5	424	0.007	5	424	0.013
10:00 - 11:00	5	424	0.002	5	424	0.001	5	424	0.003
11:00 - 12:00	5	424	0.003	5	424	0.005	5	424	0.008
12:00 - 13:00	5	424	0.002	5	424	0.000	5	424	0.002
13:00 - 14:00	5	424	0.003	5	424	0.004	5	424	0.007
14:00 - 15:00	5	424	0.001	5	424	0.002	5	424	0.003
15:00 - 16:00	5	424	0.004	5	424	0.004	5	424	0.008
16:00 - 17:00	5	424	0.002	5	424	0.001	5	424	0.003
17:00 - 18:00	5	424	0.000	5	424	0.000	5	424	0.000
18:00 - 19:00	5	424	0.000	5	424	0.001	5	424	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.027			0.028			0.055

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:	224 - 805 (units:)
Survey date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

WYG Group Quay West Salford Quays

Licence No: 705118

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PSVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.002	5	424	0.001	5	424	0.003
08:00 - 09:00	5	424	0.004	5	424	0.004	5	424	0.008
09:00 - 10:00	5	424	0.003	5	424	0.003	5	424	0.006
10:00 - 11:00	5	424	0.002	5	424	0.002	5	424	0.004
11:00 - 12:00	5	424	0.002	5	424	0.002	5	424	0.004
12:00 - 13:00	5	424	0.002	5	424	0.003	5	424	0.005
13:00 - 14:00	5	424	0.002	5	424	0.002	5	424	0.004
14:00 - 15:00	5	424	0.002	5	424	0.002	5	424	0.004
15:00 - 16:00	5	424	0.004	5	424	0.004	5	424	0.008
16:00 - 17:00	5	424	0.002	5	424	0.002	5	424	0.004
17:00 - 18:00	5	424	0.003	5	424	0.003	5	424	0.006
18:00 - 19:00	5	424	0.002	5	424	0.002	5	424	0.004
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.030			0.030			0.060

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:	224 - 805 (units:)
Survey date date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.005	5	424	0.007	5	424	0.012
08:00 - 09:00	5	424	0.004	5	424	0.008	5	424	0.012
09:00 - 10:00	5	424	0.001	5	424	0.001	5	424	0.002
10:00 - 11:00	5	424	0.001	5	424	0.000	5	424	0.001
11:00 - 12:00	5	424	0.003	5	424	0.005	5	424	0.008
12:00 - 13:00	5	424	0.003	5	424	0.003	5	424	0.006
13:00 - 14:00	5	424	0.003	5	424	0.005	5	424	0.008
14:00 - 15:00	5	424	0.001	5	424	0.000	5	424	0.001
15:00 - 16:00	5	424	0.011	5	424	0.008	5	424	0.019
16:00 - 17:00	5	424	0.012	5	424	0.012	5	424	0.024
17:00 - 18:00	5	424	0.011	5	424	0.011	5	424	0.022
18:00 - 19:00	5	424	0.009	5	424	0.008	5	424	0.017
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.064			0.068			0.132

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:	224 - 805 (units:)
Survey date date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.099	5	424	0.381	5	424	0.480
08:00 - 09:00	5	424	0.182	5	424	0.782	5	424	0.964
09:00 - 10:00	5	424	0.205	5	424	0.257	5	424	0.462
10:00 - 11:00	5	424	0.151	5	424	0.213	5	424	0.364
11:00 - 12:00	5	424	0.202	5	424	0.218	5	424	0.420
12:00 - 13:00	5	424	0.198	5	424	0.210	5	424	0.408
13:00 - 14:00	5	424	0.214	5	424	0.217	5	424	0.431
14:00 - 15:00	5	424	0.203	5	424	0.224	5	424	0.427
15:00 - 16:00	5	424	0.472	5	424	0.226	5	424	0.698
16:00 - 17:00	5	424	0.369	5	424	0.244	5	424	0.613
17:00 - 18:00	5	424	0.501	5	424	0.294	5	424	0.795
18:00 - 19:00	5	424	0.447	5	424	0.328	5	424	0.775
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.243			3.594			6.837

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:	224 - 805 (units:)
Survey date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.017	5	424	0.036	5	424	0.053
08:00 - 09:00	5	424	0.026	5	424	0.175	5	424	0.201
09:00 - 10:00	5	424	0.044	5	424	0.054	5	424	0.098
10:00 - 11:00	5	424	0.031	5	424	0.028	5	424	0.059
11:00 - 12:00	5	424	0.030	5	424	0.031	5	424	0.061
12:00 - 13:00	5	424	0.041	5	424	0.033	5	424	0.074
13:00 - 14:00	5	424	0.027	5	424	0.022	5	424	0.049
14:00 - 15:00	5	424	0.032	5	424	0.035	5	424	0.067
15:00 - 16:00	5	424	0.176	5	424	0.057	5	424	0.233
16:00 - 17:00	5	424	0.067	5	424	0.037	5	424	0.104
17:00 - 18:00	5	424	0.066	5	424	0.048	5	424	0.114
18:00 - 19:00	5	424	0.033	5	424	0.031	5	424	0.064
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.590			0.587			1.177

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:	224 - 805 (units:)
Survey date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.001	5	424	0.016	5	424	0.017
08:00 - 09:00	5	424	0.004	5	424	0.042	5	424	0.046
09:00 - 10:00	5	424	0.008	5	424	0.012	5	424	0.020
10:00 - 11:00	5	424	0.008	5	424	0.009	5	424	0.017
11:00 - 12:00	5	424	0.003	5	424	0.012	5	424	0.015
12:00 - 13:00	5	424	0.008	5	424	0.003	5	424	0.011
13:00 - 14:00	5	424	0.012	5	424	0.004	5	424	0.016
14:00 - 15:00	5	424	0.007	5	424	0.003	5	424	0.010
15:00 - 16:00	5	424	0.050	5	424	0.005	5	424	0.055
16:00 - 17:00	5	424	0.019	5	424	0.004	5	424	0.023
17:00 - 18:00	5	424	0.022	5	424	0.008	5	424	0.030
18:00 - 19:00	5	424	0.005	5	424	0.003	5	424	0.008
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.147			0.121			0.268

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:	224 - 805 (units:)
Survey date date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	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	5	424	0.122	5	424	0.440	5	424	0.562
08:00 - 09:00	5	424	0.217	5	424	1.007	5	424	1.224
09:00 - 10:00	5	424	0.257	5	424	0.325	5	424	0.582
10:00 - 11:00	5	424	0.191	5	424	0.251	5	424	0.442
11:00 - 12:00	5	424	0.238	5	424	0.265	5	424	0.503
12:00 - 13:00	5	424	0.250	5	424	0.249	5	424	0.499
13:00 - 14:00	5	424	0.256	5	424	0.248	5	424	0.504
14:00 - 15:00	5	424	0.243	5	424	0.262	5	424	0.505
15:00 - 16:00	5	424	0.710	5	424	0.297	5	424	1.007
16:00 - 17:00	5	424	0.467	5	424	0.297	5	424	0.764
17:00 - 18:00	5	424	0.599	5	424	0.361	5	424	0.960
18:00 - 19:00	5	424	0.495	5	424	0.369	5	424	0.864
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		4.045			4.371			8.416	

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:	224 - 805 (units:)
Survey date range:	01/01/00 - 02/03/17
Number of weekdays (Monday-Friday):	5
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.



Appendix B

Trip Distribution (Based on 2011 Census Data)

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

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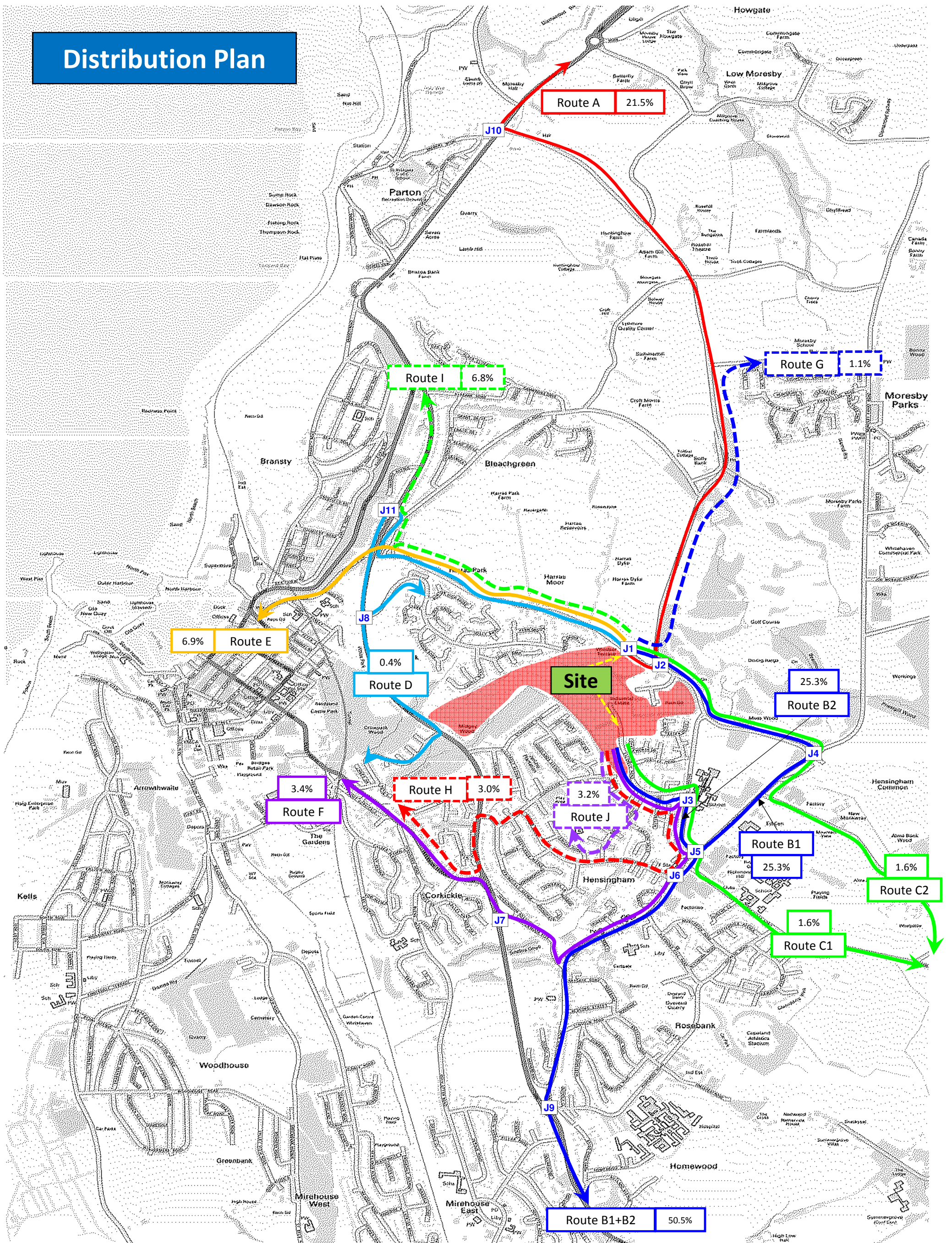
population All usual residents aged 16 and over in employment the week before the census
units Persons
date 2011
method of travel to work Driving a car or van

Place of Work : 2011 Census Merged Local Authority District	Place of Residence - E02004002 : Copeland 003	Route	%	Trips	Place of Work 2011 Super Output Area - Middle Layer	Place of Residence - E02004002 : Copeland 003	Route	%	trips
Copeland	2,747				E02004000 : Copeland 001	60	A	70.0%	42
Allerdale	538	A	100.0%	538			G	30.0%	18
Carlisle	71	A	100.0%	71	E02004001 : Copeland 002	527	F	20.0%	105
Eden	35	A	100.0%	35			H	20.0%	105
Barrow-in-Furness	12	B1	50.0%	6			E	40.0%	211
		B2	50.0%	6			I	20.0%	105
South Lakeland	12	A	50.0%	6	E02004002 : Copeland 003	371	C1	15.0%	56
		B1	25.0%	3			C2	15.0%	56
		B2	25.0%	3			J	30.0%	111
Lancaster	3	A	100.0%	3			I	35.0%	130
Hillingdon	3	A	100.0%	3			G	5.0%	19
County Durham	2	A	100.0%	2	E02004003 : Copeland 004	81	B1	50.0%	41
Northumberland	2	A	100.0%	2			B2	50.0%	41
Sunderland	2	A	100.0%	2	E02004004 : Copeland 005	90	B1	20.0%	18
Manchester	2	A	100.0%	2			B2	20.0%	18
Stockport	2								
		A	100.0%	2			E	30.0%	27
Coventry	2	A	100.0%	2			D	15.0%	14
Chelmsford	2	A	100.0%	2			F	15.0%	14
West Berkshire	2	A	100.0%	2	E02004005 : Copeland 006	270	B1	50.0%	135
South Oxfordshire	2	A	100.0%	2			B2	50.0%	135
North Tyneside	1	A	100.0%	1	E02004006 : Copeland 007	1,332	B1	50.0%	666
Warrington	1	A	100.0%	1			B2	50.0%	666
Cheshire East	1	A	100.0%	1	E02004007 : Copeland 008	16	B1	50.0%	8
Cheshire West and Chester	1	A	100.0%	1			B2	50.0%	8
Fylde	1	A	100.0%	1					
Ribble Valley	1	A	100.0%	1					
South Ribble	1	A	100.0%	1					
Wyre	1	A	100.0%	1					
Wigan	1	A	100.0%	1					
Sefton	1	A	100.0%	1					
Richmondshire	1	A	100.0%	1					
Sheffield	1	A	100.0%	1					
Leeds	1	A	100.0%	1					
Leicester	1	A	100.0%	1					
Erewash	1	A	100.0%	1					
Wellingborough	1	A	100.0%	1					
Ashfield	1	A	100.0%	1					
Rushcliffe	1	A	100.0%	1					
Shropshire	1	A	100.0%	1					
Rugby	1	A	100.0%	1					
Fenland	1	A	100.0%	1					
Great Yarmouth	1	A	100.0%	1					
Bromley	1	A	100.0%	1					
Hammersmith and Fulham	1	A	100.0%	1					
Lambeth	1	A	100.0%	1					
Cornwall,Isles of Scilly	1	A	100.0%	1					
Wiltshire	1	A	100.0%	1					
Cheltenham	1	A	100.0%	1					
South Somerset	1	A	100.0%	1					
Pembrokeshire	1	A	100.0%	1					
Powys	1	A	100.0%	1					
Total	3,470								

Route	Trips LA Level	Trips MSOA Level	Trips Total	%
A	705	42	747	21.5%
B1	9	868	877	25.3%
B2	9	868	877	25.3%
C1	0	56	56	1.6%
C2	0	56	56	1.6%
D	0	14	14	0.4%
E	0	238	238	6.9%
F	0	119	119	3.4%
G	0	37	37	1.1%
H	0	105	105	3.0%
I	0	235	235	6.8%
J	0	111	111	3.2%
Total	723	2747	3470	100%

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.

Distribution Plan



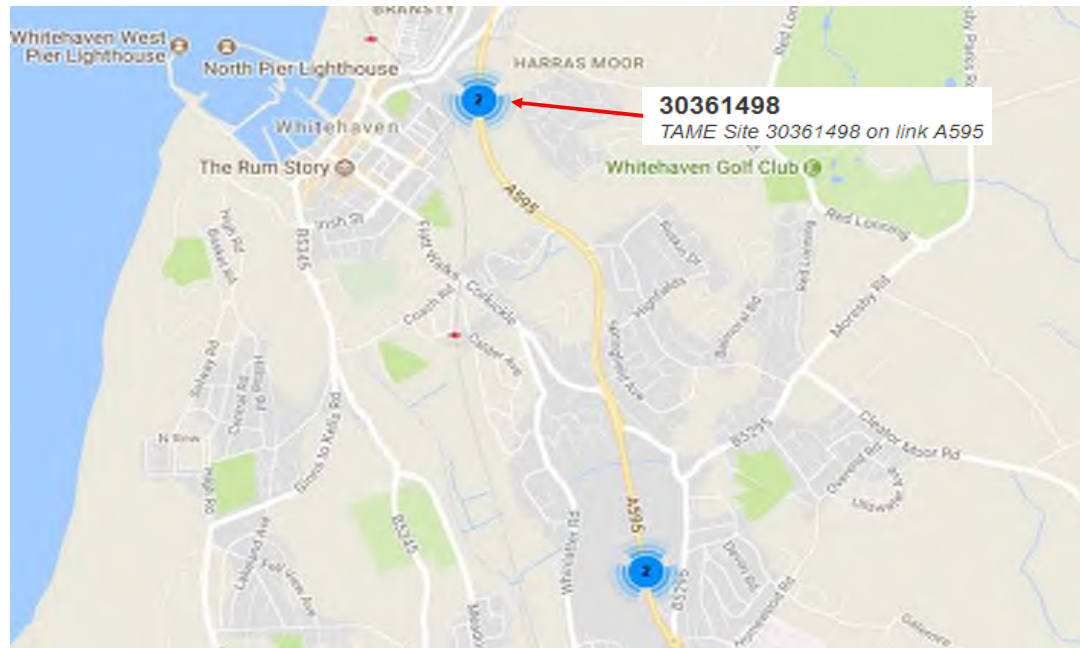


Appendix C

Webtris Traffic Data

Hourly Two-Way Flows (Source: <http://webtris.highwaysengland.co.uk/>)

Report Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Total
Wed 01 Nov 2017	49	29	23	16	152	736	872	1228	1503	1053	866	983	1066	1044	1164	1306	1543	1524	1102	635	478	360	202	105	18039
Thu 02 Nov 2017	50	31	22	20	145	742	861	1237	1423	1086	954	994	1043	1091	1197	1329	1519	1505	953	648	377	310	187	99	17823
Fri 03 Nov 2017	74	27	19	23	159	673	832	1153	1306	1046	1005	1195	1313	1290	1400	1449	1589	1536	843	598	370	312	300	171	18683
Sat 04 Nov 2017	99	69	44	51	107	283	372	296	529	792	919	1110	1155	1154	1082	970	1043	974	676	472	324	361	244	173	13299
Sun 05 Nov 2017	94	79	50	52	115	250	304	191	304	526	820	997	1040	1044	960	1020	990	915	628	509	401	293	193	90	11865
Mon 06 Nov 2017	53	25	14	22	165	723	884	1159	1403	1021	912	911	1014	1033	1100	1293	1438	1457	1002	575	398	311	223	80	17216
Tue 07 Nov 2017	47	25	19	20	181	719	613	1072	1434	1026	958	899	991	977	1107	1281	1546	1476	1041	653	447	311	175	93	17111
Wed 08 Nov 2017	55	26	39	38	159	674	898	1269	1473	1085	961	973	1024	1062	1227	1349	1477	1498	1077	641	513	334	249	98	18199
Thu 09 Nov 2017	51	25	13	20	161	706	838	1168	1395	1111	975	1087	1116	1090	1227	1322	1562	1429	1049	637	462	341	247	102	18134
Fri 10 Nov 2017	62	52	22	25	152	707	823	1135	1377	988	977	1113	1318	1163	1389	1474	1514	1292	991	625	461	336	272	154	18422
Sat 11 Nov 2017	95	43	66	38	112	275	329	355	608	865	985	1025	1195	1254	1090	1000	1018	1068	782	543	323	282	254	158	13763
Sun 12 Nov 2017	108	76	86	57	113	278	266	247	335	524	815	969	1047	1095	968	993	979	877	616	465	318	275	176	79	11762
Mon 13 Nov 2017	52	28	23	27	165	759	858	1136	1437	985	857	957	953	1014	1071	1315	1508	1500	1003	604	407	295	197	76	17227
Tue 14 Nov 2017	36	32	15	24	150	712	866	1257	1421	1038	865	949	969	922	1156	1314	1450	1511	1058	600	447	312	213	86	17403
Wed 15 Nov 2017	36	19	22	19	179	751	887	1253	1487	998	911	1017	943	1037	1066	1403	1554	1505	1139	657	506	372	249	107	18117
Thu 16 Nov 2017	65	26	21	18	180	754	856	1182	1394	1022	977	1081	1019	1110	1221	1335	1545	1486	1083	748	493	390	255	111	18372
Fri 17 Nov 2017	53	40	29	26	154	699	818	765	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2584
Sat 18 Nov 2017	0	0	0	0	0	0	0	234	574	759	1047	1132	1144	1165	1073	1006	1038	1014	706	559	381	296	264	181	12573
Sun 19 Nov 2017	127	78	60	78	118	248	288	226	297	555	823	954	1083	1071	1054	1050	1018	877	669	463	324	233	164	78	11936
Tue 21 Nov 2017	38	25	13	16	165	713	864	1196	1461	968	881	936	1063	1001	1143	1331	1477	1444	1071	605	403	341	211	92	17458
Wed 22 Nov 2017	47	32	12	19	200	752	689	1070	1380	1089	830	980	1009	1120	1222	1395	1463	1363	887	629	375	337	209	96	17205
Thu 23 Nov 2017	66	39	27	25	184	725	846	1135	1458	1060	922	958	1117	1035	1282	1390	1547	1469	1093	675	456	353	260	131	18253
Sun 26 Nov 2017	143	72	76	71	135	251	300	201	255	542	785	920	1074	1027	997	895	988	766	638	436	372	235	175	79	11433
Mon 27 Nov 2017	47	22	22	19	167	738	867	1155	1392	1011	957	902	1041	991	1123	1313	1495	1505	944	615	458	279	218	93	17374
Tue 28 Nov 2017	38	19	12	22	146	798	908	1245	1445	1009	966	1030	998	1046	1204	1384	1510	1527	1041	652	465	313	278	77	18133
Wed 29 Nov 2017	60	22	21	26	191	753	672	1095	1472	1189	972	1054	1080	1102	1226	1404	1564	1566	1069	684	521	321	212	96	18372
Thu 30 Nov 2017	64	25	25	31	192	750	748	1206	1469	1062	1027	1023	1107	1038	1221	1402	1545	1436	1131	717	505	358	248	103	18433

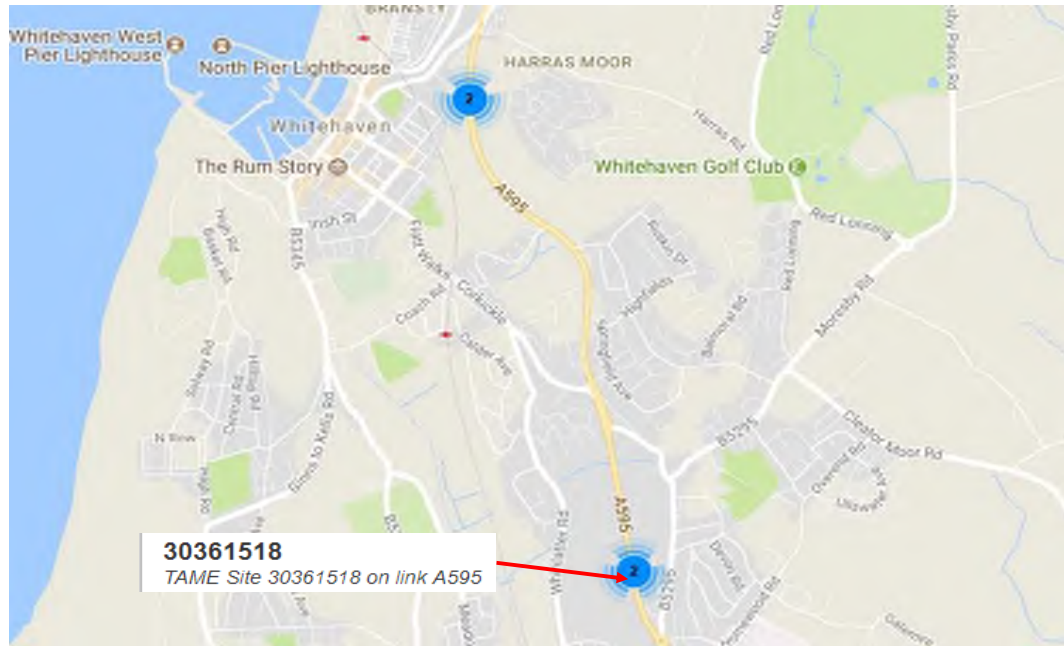


Week Day Peak Flows

Weekend Peak Flows

Hourly Two-Way Flows (Source: <http://webtris.highwaysengland.co.uk/>)

Report Date	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24	Total
Wed 01 Nov 2017	46	27	23	14	166	809	982	1334	1461	1103	1063	1196	1299	1243	1310	1408	1522	1534	1162	710	537	401	222	99	10043
Thu 02 Nov 2017	48	32	23	23	155	836	981	1329	1380	1202	1164	1214	1288	1290	1411	1421	1526	1519	1051	797	426	425	222	107	10161
Fri 03 Nov 2017	77	30	23	19	165	760	918	1239	1305	1170	1221	1457	1558	1405	1564	1519	1560	1281	953	667	484	364	338	199	10697
Sat 04 Nov 2017	158	123	85	35	120	303	403	354	565	887	1004	1196	1243	1272	1221	1051	1128	954	730	465	388	364	282	208	7711
Sun 05 Nov 2017	151	117	102	36	121	284	322	190	286	521	870	1010	1081	1103	1079	1033	965	816	560	523	416	290	213	91	6347
Mon 06 Nov 2017	56	35	12	20	169	808	937	1220	1351	1136	1112	1100	1224	1239	1254	1343	1471	1393	1044	690	457	356	219	76	9424
Tue 07 Nov 2017	46	23	20	23	186	792	644	1176	1377	1182	1082	1148	1184	1242	1330	1364	1563	1490	1100	747	505	372	198	96	9759
Wed 08 Nov 2017	43	26	36	59	162	747	950	1338	1384	1239	1150	1193	1244	1239	1357	1390	1483	1429	1137	706	508	407	239	110	9938
Thu 09 Nov 2017	53	23	13	24	161	794	936	1268	1387	1307	1166	1268	1333	1291	1372	1443	1520	1435	1079	715	492	417	230	115	10213
Fri 10 Nov 2017	58	51	20	23	165	786	870	1228	1360	1108	1186	1346	1529	1379	1510	1437	1548	1341	971	678	487	395	298	150	10487
Sat 11 Nov 2017	120	84	80	34	114	325	356	357	600	887	1033	1109	1186	1298	1203	1083	1080	1053	762	582	374	341	304	234	7643
Sun 12 Nov 2017	184	132	150	57	123	301	284	246	299	521	798	941	1059	1169	1081	1008	959	841	599	481	353	284	169	91	6274
Mon 13 Nov 2017	42	27	22	26	174	818	939	1204	1399	1133	1057	1107	1181	1173	1209	1416	1476	1486	1085	668	435	338	215	68	9530
Tue 14 Nov 2017	40	27	14	26	164	795	959	1321	1455	1189	1047	1139	1189	1150	1259	1425	1445	1511	1106	674	503	362	222	97	9728
Wed 15 Nov 2017	33	15	19	27	182	838	980	1357	1452	1111	1080	1155	1195	1140	1228	1438	1515	1488	1160	709	552	378	271	102	9898
Thu 16 Nov 2017	52	19	17	17	191	835	966	1261	1419	1201	1174	1264	1281	1338	1451	1446	1599	1478	1144	813	550	433	248	113	10463
Fri 17 Nov 2017	66	46	34	21	165	764	948	1198	687																1343
Sat 18 Nov 2017							271	626	801	1129	1130	1161	1248	1124	1027	1069	1030	764	606	426	341	289	242	7137	
Sun 19 Nov 2017	171	135	108	67	126	291	306	221	280	519	874	998	1094	1090	1085	1063	993	877	658	491	379	275	180	92	6430
Tue 21 Nov 2017	37	27	15	19	182	813	966	1248	1447	1133	1020	1129	1249	1266	1295	1414	1511	1516	1102	631	460	367	207	103	9860
Wed 22 Nov 2017	47	37	12	20	218	856	732	1118	1375	1251	1024	1086	1236	1232	1351	1421	1511	1388	974	657	397	373	218	102	9717
Thu 23 Nov 2017	67	36	26	35	202	822	929	1258	1455	1248	1105	1181	1345	1222	1442	1501	1567	1473	1113	720	510	405	259	117	10305
Sun 26 Nov 2017	178	135	133	64	133	287	298	228	261	493	854	1016	1093	1115	1026	913	968	809	628	437	365	235	179	75	6179
Mon 27 Nov 2017	63	31	17	20	179	811	944	1236	1387	1126	1124	1201	1285	1220	1341	1425	1521	1574	967	664	467	352	243	77	9833
Tue 28 Nov 2017	35	25	15	22	153	870	997	1337	1432	1202	1148	1176	1271	1262	1397	1458	1541	1586	1119	745	519	319	262	67	10189
Wed 29 Nov 2017	54	26	18	26	206	848	688	1149	1387	1310	1169	1218	1333	1293	1380	1496	1505	1564	1136	728	530	356	187	99	10226
Thu 30 Nov 2017	55	21	22	44	194	838	815	1265	1398	1303	1215	1211	1361	1339	1427	1466	1564	1487	1151	706	557	381	252	106	10398



Week Day Peak Flows

Weekend Peak Flows



Appendix B – Accident Data

Figure B1 – Map of Personal Injury Accidents

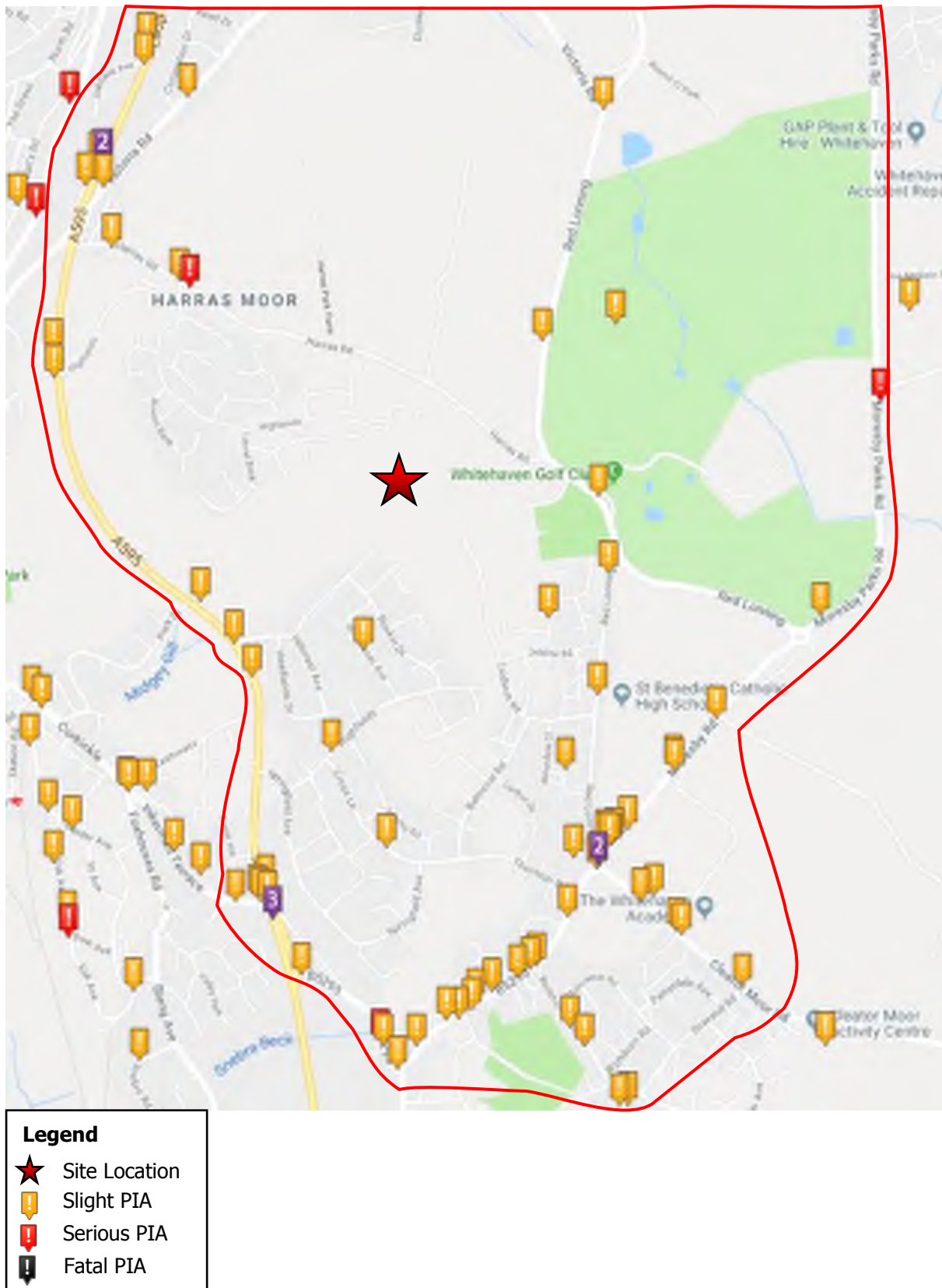


Figure B2: PIAs at A595/B5295 Egremont Road/Homewood Road Roundabout

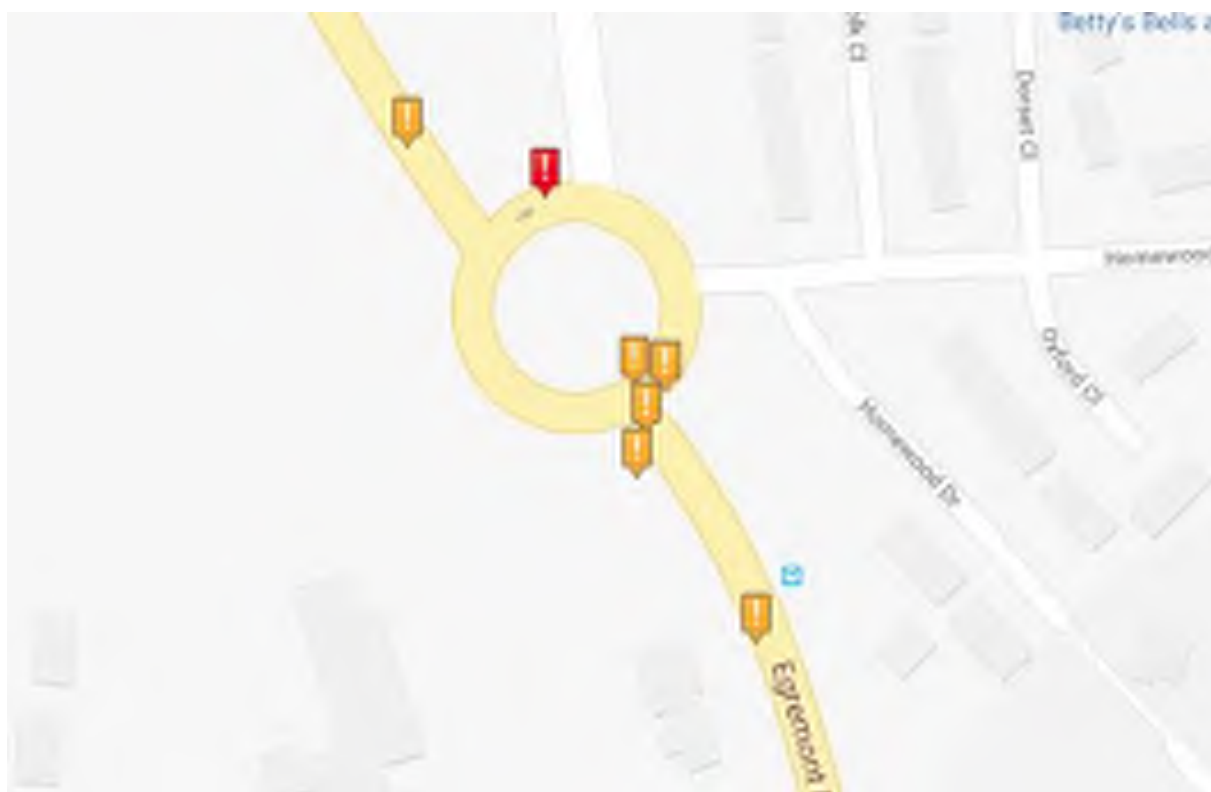


Figure B3: PIAs at Main Street between Cleator Moor/Moresby Road Roundabout and Egremont Road/Ribton Moorside Mini-Roundabout

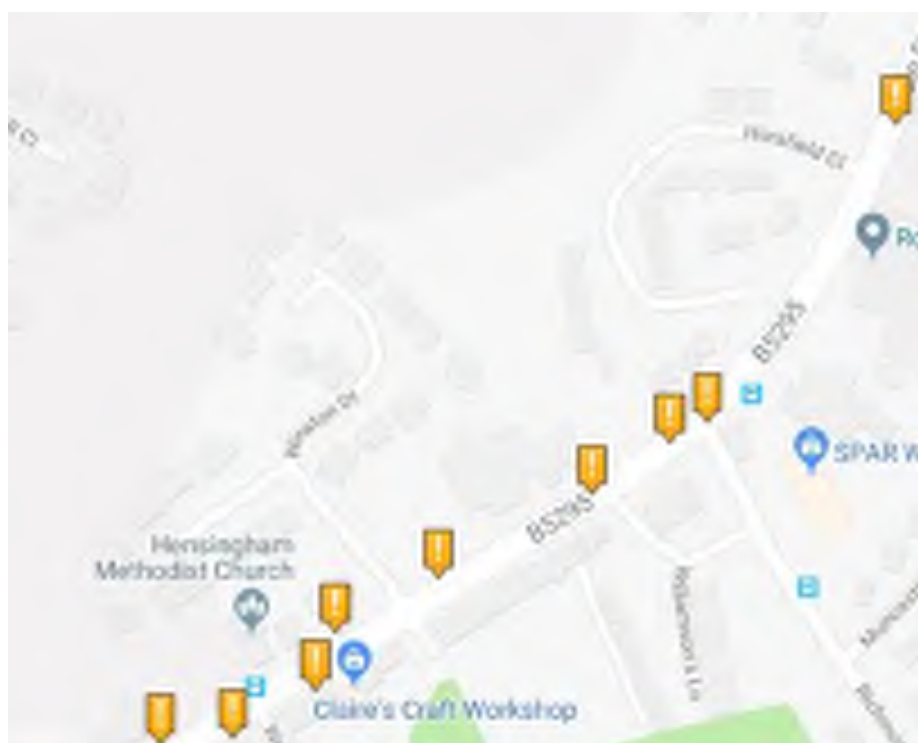


Table B4: PIAs at Cleator Moor Road (between Moresby Road/Main Street Roundabout and Overend Road)



Table B5: PIAs at A595/Rosehill Priority Junction

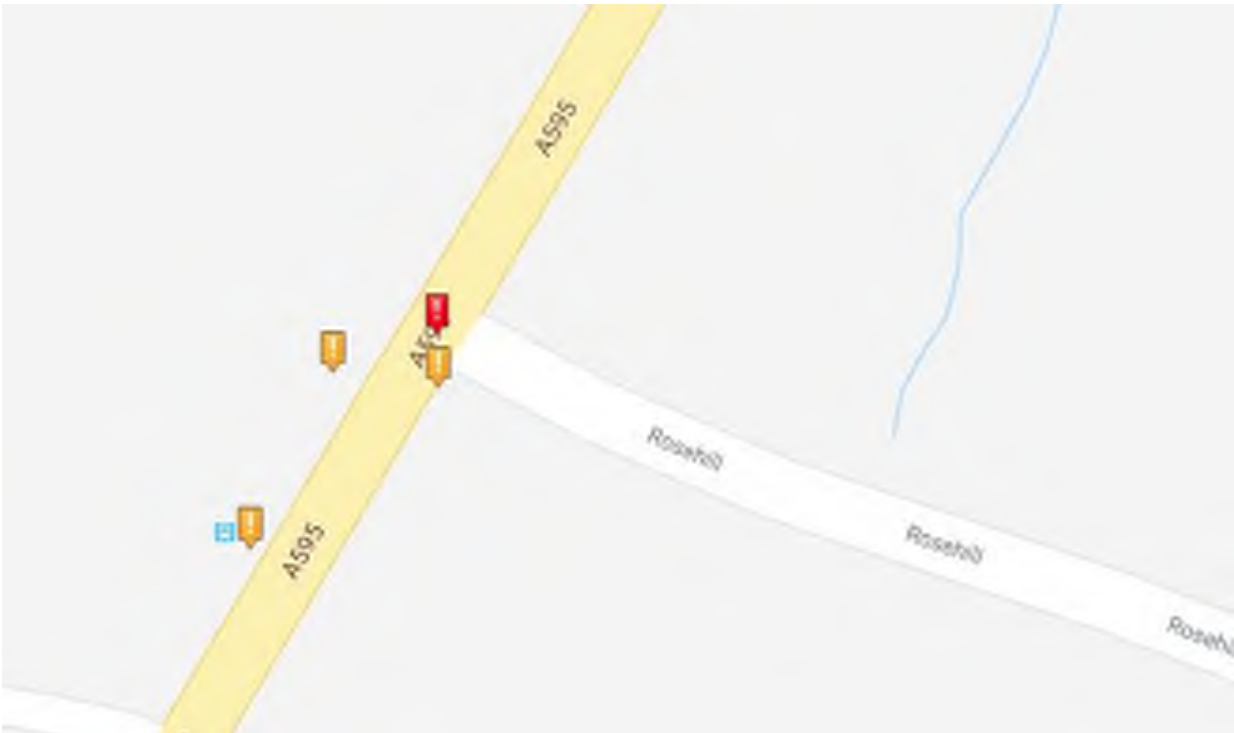


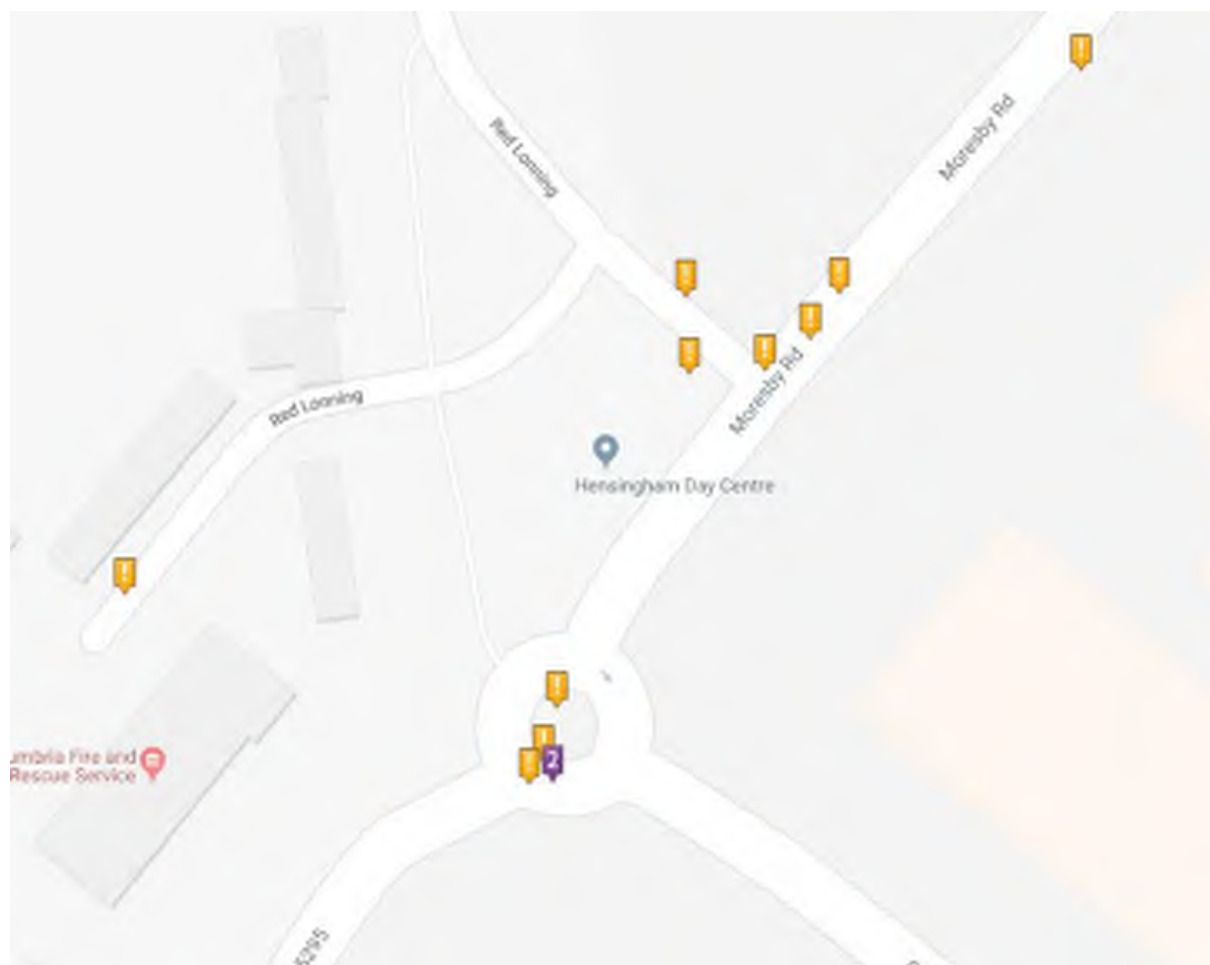
Figure B6: PIAs at A595/Victoria Road Priority Junction



Figure B7: PIAs at A595/Inkerman Terrace Signalised Junction



Figure B8: Moresby Road/Red Lonning Priority Junction and B5295 Cleator Moor Road/Moresby Road Roundabout





Appendix C – Illustrative Masterplan & Proposed Harras Moor Site Access drawing

- Legend**
- Indicative dwellings
 - Indicative streets
 - Indicative shared surface
 - Open space
 - Indicative back gardens
 - Trees
 - Attenuation areas
 - Local Equipped Area of Play



Project title:
Harras Moor

Drawing title:
Illustrative Layout

Dwg N°: A090070-410 004 Rev: A

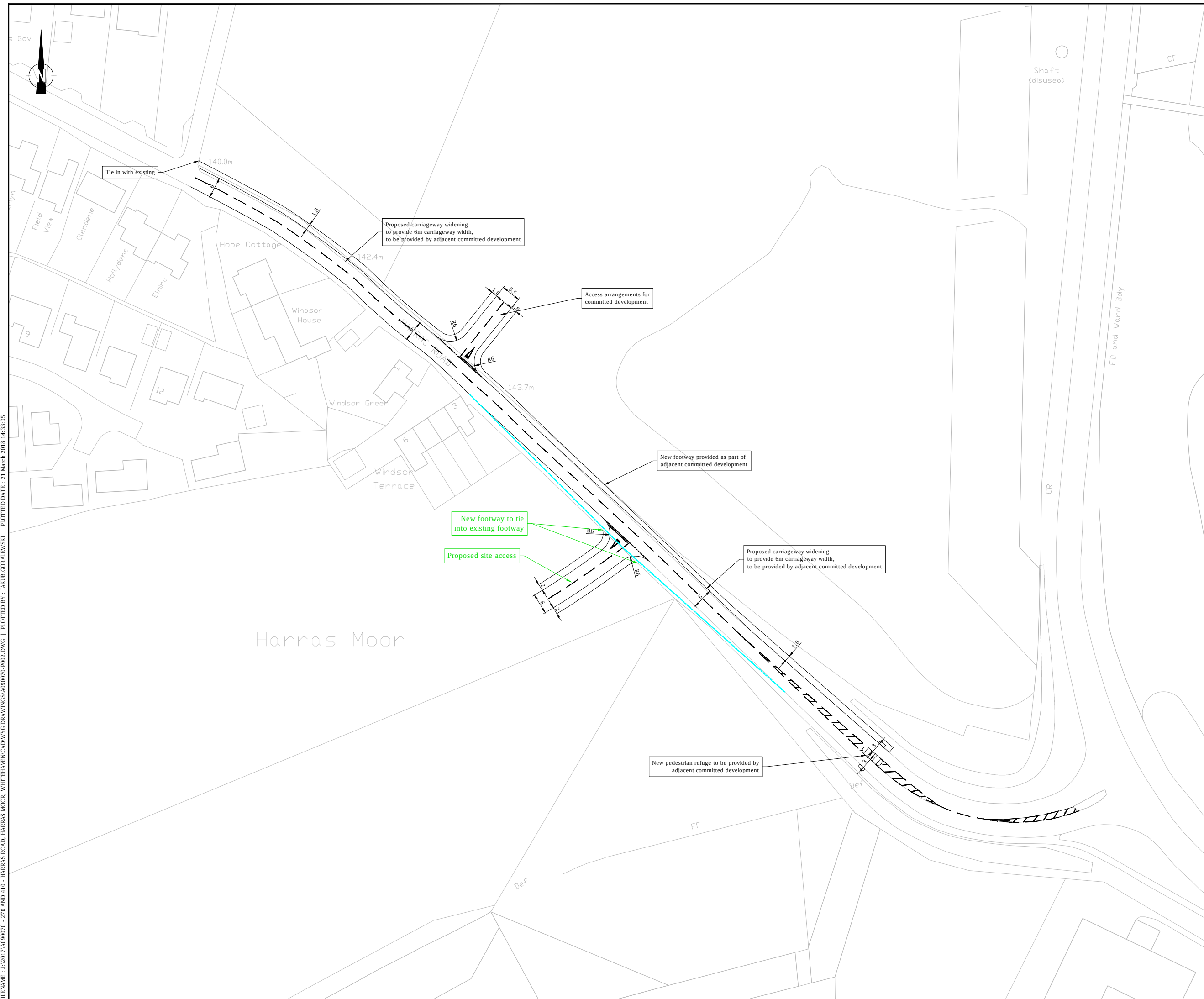
Drawn:RK Checked:AC Date: 27/04/18

Scale @ A2: 1:2500



Quay West, Trafford Wharf Road, Trafford Park, Manchester, M17 1HH
0161 874 8700 uld@wyg.com www.wyg.com





DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND
REPORT ANY OMISSIONS OR ERRORS

1. This drawing should be read in relation to the subject of the title only. Other information shown on the drawing is to be considered indicative only. Reference should be made to appropriate drawing series/specifications for other information.
2. All dimensions are in metres unless specified otherwise.
3. Visibility splay are based upon MfS requirements.

Key:

2.4m x 63m Visibility splay

PRELIMINARY ISSUE

REV	DESCRIPTION	BY	CHK	APP	DATE

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com



Project:

PROPOSED RESIDENTIAL DEVELOPMENT AT HARRAS MOOR, WHITEHEAVEN

Drawing Title:

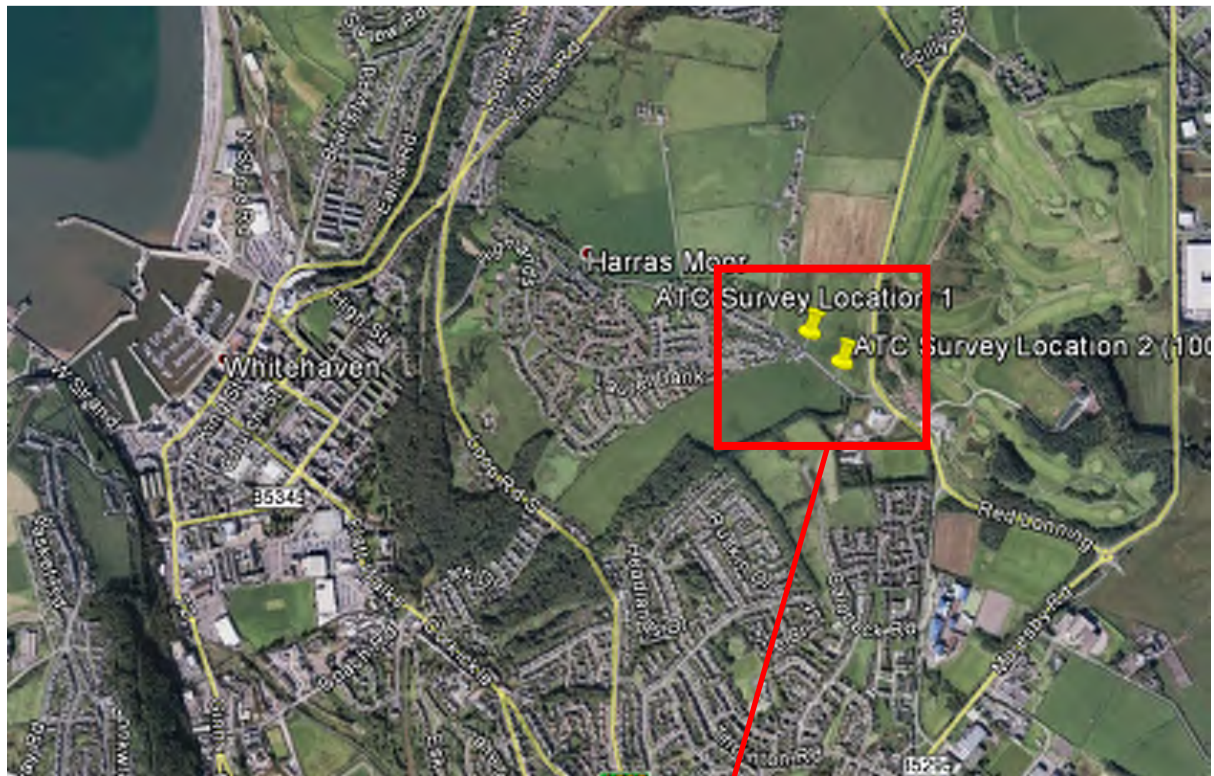
PROPOSED SITE ACCESS JUNCTION OPTION 1

Scale @ A1 1:500	Drawn JG	Date MAR 2018	Checked MS	Date MAR 2018	Approved MS	Date MAR 2018
Project No. A090070	Office 27	Type C	Drawing No. A090070-P002			Revision --



Appendix D – Traffic Survey Data

ATC Survey Locations



Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 1.1: Left from Red Lonning (South) to Harras Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	16	0	1	0	0	0	17	17.00
0745 - 0800	0	0	31	0	2	0	0	0	33	33.00
0800 - 0815	0	0	21	0	1	1	0	0	23	23.50
0815 - 0830	0	0	30	0	5	1	0	0	36	36.50
Hourly Total	0	0	98	0	9	2	0	0	109	110.00
Hourly Average	0.00	0.00	24.50	0.00	2.25	0.50	0.00	0.00	27.25	27.50
0830 - 0845	0	0	59	0	2	0	0	0	61	61.00
0845 - 0900	0	0	33	0	2	0	0	0	35	35.00
0900 - 0915	0	0	19	0	6	0	0	0	25	25.00
0915 - 0930	0	0	23	0	1	0	0	0	24	24.00
Hourly Total	0	0	134	0	11	0	0	0	145	145.00
Hourly Average	0.00	0.00	33.50	0.00	2.75	0.00	0.00	0.00	36.25	36.25
Session Total	0	0	232	0	20	2	0	0	254	255.00
Session Average	0.00	0.00	29.00	0.00	2.50	0.25	0.00	0.00	31.75	31.88

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 1.1: Left from Red Lonning (South) to Harras Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	29	0	4	0	0	0	33	33.00
1600 - 1615	0	0	34	1	1	0	0	0	36	36.00
1615 - 1630	0	0	26	0	6	0	0	0	32	32.00
1630 - 1645	0	0	33	0	3	0	0	0	36	36.00
Hourly Total	0	0	122	1	14	0	0	0	137	137.00
Hourly Average	0.00	0.00	30.50	0.25	3.50	0.00	0.00	0.00	34.25	34.25
1645 - 1700	1	0	26	0	2	0	0	0	29	28.20
1700 - 1715	0	0	31	0	3	0	0	0	34	34.00
1715 - 1730	0	0	33	0	1	0	0	0	34	34.00
1730 - 1745	0	0	20	0	1	0	0	0	21	21.00
Hourly Total	1	0	110	0	7	0	0	0	118	117.20
Hourly Average	0.25	0.00	27.50	0.00	1.75	0.00	0.00	0.00	29.50	29.30
1745 - 1800	0	0	29	0	0	0	0	0	29	29.00
1800 - 1815	0	0	12	0	0	0	0	0	12	12.00
1/2 Hourly Total	0	0	41	0	0	0	0	0	41	41.00
1/2 Hourly Average	0.00	0.00	20.50	0.00	0.00	0.00	0.00	0.00	20.50	20.50
Session Total	1	0	273	1	21	0	0	0	296	295.20
Session Average	0.10	0.00	27.30	0.10	2.10	0.00	0.00	0.00	29.60	29.52

Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 1.2: Northbound from Red Lonning (South) to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	14	0	4	1	1	0	20	21.80
0745 - 0800	0	0	24	0	2	0	1	0	27	28.30
0800 - 0815	0	0	31	0	6	0	0	0	37	37.00
0815 - 0830	0	0	38	0	4	1	3	0	46	50.40
Hourly Total	0	0	107	0	16	2	5	0	130	137.50
Hourly Average	0.00	0.00	26.75	0.00	4.00	0.50	1.25	0.00	32.50	34.38
0830 - 0845	0	0	61	0	2	0	1	0	64	65.30
0845 - 0900	0	0	37	0	1	1	3	0	42	46.40
0900 - 0915	0	0	28	0	3	1	2	0	34	37.10
0915 - 0930	1	0	16	0	5	0	0	0	22	21.20
Hourly Total	1	0	142	0	11	2	6	0	162	170.00
Hourly Average	0.25	0.00	35.50	0.00	2.75	0.50	1.50	0.00	40.50	42.50
Session Total	1	0	249	0	27	4	11	0	292	307.50
Session Average	0.13	0.00	31.13	0.00	3.38	0.50	1.38	0.00	36.50	38.44

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 1.2: Northbound from Red Lonning (South) to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	49	0	8	0	0	0	57	57.00
1600 - 1615	0	0	56	0	7	1	1	1	66	68.80
1615 - 1630	0	0	67	0	15	0	0	0	82	82.00
1630 - 1645	1	1	88	0	17	1	0	1	109	109.10
Hourly Total	1	1	260	0	47	2	1	2	314	316.90
Hourly Average	0.25	0.25	65.00	0.00	11.75	0.50	0.25	0.50	78.50	79.23
1645 - 1700	0	0	66	0	5	0	0	0	71	71.00
1700 - 1715	0	0	64	0	12	2	0	0	78	79.00
1715 - 1730	0	0	51	0	9	0	0	0	60	60.00
1730 - 1745	0	0	64	0	5	0	0	0	69	69.00
Hourly Total	0	0	245	0	31	2	0	0	278	279.00
Hourly Average	0.00	0.00	61.25	0.00	7.75	0.50	0.00	0.00	69.50	69.75
1745 - 1800	0	0	43	0	9	0	0	0	52	52.00
1800 - 1815	0	0	22	0	5	0	0	0	27	27.00
1/2 Hourly Total	0	0	65	0	14	0	0	0	79	79.00
1/2 Hourly Average	0.00	0.00	32.50	0.00	7.00	0.00	0.00	0.00	39.50	39.50
Session Total	1	1	570	0	92	4	1	2	671	674.90
Session Average	0.10	0.10	57.00	0.00	9.20	0.40	0.10	0.20	67.10	67.49

Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 1.3: Left from Harras Road to Red Lonning (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	0	0	0	0	0	0	0	1	0.20
0745 - 0800	0	0	0	0	1	0	0	0	1	1.00
0800 - 0815	0	0	1	0	1	0	0	0	2	2.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	1	0	1	0	2	0	0	0	4	3.20
Hourly Average	0.25	0.00	0.25	0.00	0.50	0.00	0.00	0.00	1.00	0.80
0830 - 0845	0	0	2	0	0	0	0	0	2	2.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
0900 - 0915	0	0	2	0	0	0	0	0	2	2.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	5	0	0	0	0	0	5	5.00
Hourly Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	1.25	1.25
Session Total	1	0	6	0	2	0	0	0	9	8.20
Session Average	0.13	0.00	0.75	0.00	0.25	0.00	0.00	0.00	1.13	1.03

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 1.3: Left from Harras Road to Red Lonning (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	2	0	1	0	0	0	3	3.00
1600 - 1615	0	0	3	0	0	0	0	0	3	3.00
1615 - 1630	0	0	5	0	0	0	0	0	5	5.00
1630 - 1645	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	14	0	1	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.50	0.00	0.25	0.00	0.00	0.00	3.75	3.75
1645 - 1700	0	0	3	0	0	0	0	0	3	3.00
1700 - 1715	0	0	5	0	1	0	0	0	6	6.00
1715 - 1730	0	0	4	0	0	0	0	0	4	4.00
1730 - 1745	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	17	0	1	0	0	0	18	18.00
Hourly Average	0.00	0.00	4.25	0.00	0.25	0.00	0.00	0.00	4.50	4.50
1745 - 1800	0	0	0	0	1	0	0	0	1	1.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	1	0	0	0	1	1.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.50	0.50
Session Total	0	0	31	0	3	0	0	0	34	34.00
Session Average	0.00	0.00	3.10	0.00	0.30	0.00	0.00	0.00	3.40	3.40

Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 1.4: Right from Harras Road to Red Lonning (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	10	0	3	0	0	0	13	13.00
0745 - 0800	0	0	15	0	1	0	0	0	16	16.00
0800 - 0815	0	0	16	0	3	0	0	0	19	19.00
0815 - 0830	0	0	28	0	1	0	0	0	29	29.00
Hourly Total	0	0	69	0	8	0	0	0	77	77.00
Hourly Average	0.00	0.00	17.25	0.00	2.00	0.00	0.00	0.00	19.25	19.25
0830 - 0845	0	0	29	0	1	0	0	0	30	30.00
0845 - 0900	0	0	16	0	0	0	0	0	16	16.00
0900 - 0915	1	0	13	0	3	0	0	0	17	16.20
0915 - 0930	0	0	10	0	4	0	0	0	14	14.00
Hourly Total	1	0	68	0	8	0	0	0	77	76.20
Hourly Average	0.25	0.00	17.00	0.00	2.00	0.00	0.00	0.00	19.25	19.05
Session Total	1	0	137	0	16	0	0	0	154	153.20
Session Average	0.13	0.00	17.13	0.00	2.00	0.00	0.00	0.00	19.25	19.15

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 1.4: Right from Harras Road to Red Lonning (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0		25	0	3	0	0	1	29	30.00
1600 - 1615	0	0	41	0	1	0	0	1	43	44.00
1615 - 1630	0	0	35	0	3	0	0	0	38	38.00
1630 - 1645	0	0	31	0	2	0	0	0	33	33.00
Hourly Total	0	0	132	0	9	0	0	2	143	145.00
Hourly Average	0.00	0.00	33.00	0.00	2.25	0.00	0.00	0.50	35.75	36.25
1645 - 1700	0		31	0	2	0	0	0	33	33.00
1700 - 1715	0	0	39	0	2	0	0	0	41	41.00
1715 - 1730	0	0	19	0	2	0	0	0	21	21.00
1730 - 1745	0	0	25	0	0	0	0	0	25	25.00
Hourly Total	0	0	114	0	6	0	0	0	120	120.00
Hourly Average	0.00	0.00	28.50	0.00	1.50	0.00	0.00	0.00	30.00	30.00
1745 - 1800	0	0	29	0	3	0	0	0	32	32.00
1800 - 1815	0	0	26	0	3	0	0	0	29	29.00
1/2 Hourly Total	0	0	55	0	6	0	0	0	61	61.00
1/2 Hourly Average	0.00	0.00	27.50	0.00	3.00	0.00	0.00	0.00	30.50	30.50
Session Total	0	0	301	0	21	0	0	2	324	326.00
Session Average	0.00	0.00	30.10	0.00	2.10	0.00	0.00	0.20	32.40	32.60

Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 1.5: Southbound from Red Lonning (North) to Red Lonning (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	65	1	15	2	0	2	85	88.00
0745 - 0800	0	0	77	0	14	1	1	2	95	98.80
0800 - 0815	0	0	80	0	10	3	1	1	95	98.80
0815 - 0830	0	0	101	0	6	2	2	1	112	116.60
Hourly Total	0	0	323	1	45	8	4	6	387	402.20
Hourly Average	0.00	0.00	80.75	0.25	11.25	2.00	1.00	1.50	96.75	100.55
0830 - 0845	0	0	97	1	6	2	3	0	109	113.90
0845 - 0900	0	0	72	0	8	3	0	0	83	84.50
0900 - 0915	1	0	58	0	8	2	0	0	69	69.20
0915 - 0930	0	0	29	0	5	4	1	0	39	42.30
Hourly Total	1	0	256	1	27	11	4	0	300	309.90
Hourly Average	0.25	0.00	64.00	0.25	6.75	2.75	1.00	0.00	75.00	77.48
Session Total	1	0	579	2	72	19	8	6	687	712.10
Session Average	0.13	0.00	72.38	0.25	9.00	2.38	1.00	0.75	85.88	89.01

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 1.5: Southbound from Red Lonning (North) to Red Lonning (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	49	2	3	2	0	0	56	57.00
1600 - 1615	0	0	54	0	8	1	0	1	64	65.50
1615 - 1630	0	0	63	0	5	1	1	0	70	71.80
1630 - 1645	1	0	52	0	7	3	0	0	63	63.70
Hourly Total	1	0	218	2	23	7	1	1	253	258.00
Hourly Average	0.25	0.00	54.50	0.50	5.75	1.75	0.25	0.25	63.25	64.50
1645 - 1700	1	1	64	0	10	0	2	0	78	79.20
1700 - 1715	0	0	66	1	8	3	0	0	78	79.50
1715 - 1730	0	0	50	0	6	0	0	0	56	56.00
1730 - 1745	1	0	55	0	3	0	0	0	59	58.20
Hourly Total	2	1	235	1	27	3	2	0	271	272.90
Hourly Average	0.50	0.25	58.75	0.25	6.75	0.75	0.50	0.00	67.75	68.23
1745 - 1800	0	0	48	0	5	2	0	0	55	56.00
1800 - 1815	0	1	47	0	3	2	0	0	53	53.40
1/2 Hourly Total	0	1	95	0	8	4	0	0	108	109.40
1/2 Hourly Average	0.00	0.50	47.50	0.00	4.00	2.00	0.00	0.00	54.00	54.70
Session Total	3	2	548	3	58	14	3	1	632	640.30
Session Average	0.30	0.20	54.80	0.30	5.80	1.40	0.30	0.10	63.20	64.03

Whitehaven, Cumbria
Classified Junction Count

Site 1 of 14
Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 1.6: Right from Red Lonning (North) to Harras Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	1	0	0	0	0	0	1	1.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	2	0	0	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
0830 - 0845	0	0	0	0	1	0	0	0	1	1.00
0845 - 0900	0	0	2	0	0	0	0	0	2	2.00
0900 - 0915	0	0	3	0	0	0	0	0	3	3.00
0915 - 0930	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	6	0	1	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.50	0.00	0.25	0.00	0.00	0.00	1.75	1.75
Session Total	0	0	8	0	1	0	0	0	9	9.00
Session Average	0.00	0.00	1.00	0.00	0.13	0.00	0.00	0.00	1.13	1.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 1.6: Right from Red Lonning (North) to Harras Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	4	0	0	0	0	0	4	4.00
1600 - 1615	0	0	3	0	1	1	0	0	5	5.50
1615 - 1630	1	0	3	0	0	0	0	0	4	3.20
1630 - 1645	0	0	8	0	0	0	0	0	8	8.00
Hourly Total	1	0	18	0	1	1	0	0	21	20.70
Hourly Average	0.25	0.00	4.50	0.00	0.25	0.25	0.00	0.00	5.25	5.18
1645 - 1700	0	0	8	0	0	0	0	0	8	8.00
1700 - 1715	0	0	8	0	0	0	0	0	8	8.00
1715 - 1730	0	1	2	0	0	0	0	0	3	2.40
1730 - 1745	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	1	20	0	0	0	0	0	21	20.40
Hourly Average	0.00	0.25	5.00	0.00	0.00	0.00	0.00	0.00	5.25	5.10
1745 - 1800	0	0	2	0	1	0	0	0	3	3.00
1800 - 1815	0	0	1	0	0	0	0	0	1	1.00
1/2 Hourly Total	0	0	3	0	1	0	0	0	4	4.00
1/2 Hourly Average	0.00	0.00	1.50	0.00	0.50	0.00	0.00	0.00	2.00	2.00
Session Total	1	1	41	0	2	1	0	0	46	45.10
Session Average	0.10	0.10	4.10	0.00	0.20	0.10	0.00	0.00	4.60	4.51

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lanning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.1: Left from Moresby Parks Road to Local Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
0900 - 0915	0	0	0	0	0	0	0	0	0	0.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	1	0	0	0	0	0	1	1.00
Session Average	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 2.1: Left from Moresby Parks Road to Local Access								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1645 - 1700	0	0	0	0	1	0	0	0	1	1.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
1745 - 1800	0	0	1	0	0	0	0	0	1	1.00
1800 - 1815	0	0	3	0	0	0	0	0	3	3.00
1/2 Hourly Total	0	0	4	0	0	0	0	0	4	4.00
1/2 Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
Session Total	0	0	5	0	1	0	0	0	6	6.00
Session Average	0.00	0.00	0.50	0.00	0.10	0.00	0.00	0.00	0.60	0.60

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lanning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 2.2: Westbound from Moresby Parks Road to Moresby Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	33	0	9	3	0	0	46	46.90
0745 - 0800	0	1	49	0	4	0	0	0	54	53.40
0800 - 0815	0	1	45	2	8	0	0	0	56	55.40
0815 - 0830	0	1	72	1	9	1	0	0	84	83.90
Hourly Total	0	4	199	3	30	4	0	0	240	239.60
Hourly Average	0.00	1.00	49.75	0.75	7.50	1.00	0.00	0.00	60.00	59.90
0830 - 0845	0	0	58	0	10	0	0	0	68	68.00
0845 - 0900	1	0	49	0	5	0	0	0	55	54.20
0900 - 0915	1	0	42	0	10	0	0	1	54	54.20
0915 - 0930	0	0	13	0	4	0	0	0	17	17.00
Hourly Total	2	0	162	0	29	0	0	1	194	193.40
Hourly Average	0.50	0.00	40.50	0.00	7.25	0.00	0.00	0.25	48.50	48.35
Session Total	2	4	361	3	59	4	0	1	434	433.00
Session Average	0.25	0.50	45.13	0.38	7.38	0.50	0.00	0.13	54.25	54.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 2.2: Westbound from Moresby Parks Road to Moresby Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	36	0	6	0	0	0	42	42.00
1600 - 1615	1	0	29	0	4	0	0	0	34	33.20
1615 - 1630	3	1	37	0	8	0	0	0	49	46.00
1630 - 1645	1	1	44	0	15	0	0	0	61	59.60
Hourly Total	5	2	146	0	33	0	0	0	186	180.80
Hourly Average	1.25	0.50	36.50	0.00	8.25	0.00	0.00	0.00	46.50	45.20
1645 - 1700	0	0	42	1	5	0	0	0	48	48.00
1700 - 1715	0	0	58	0	5	0	0	0	63	63.00
1715 - 1730	0	0	44	0	8	0	0	0	52	52.00
1730 - 1745	0	0	45	0	4	0	0	0	49	49.00
Hourly Total	0	0	189	1	22	0	0	0	212	212.00
Hourly Average	0.00	0.00	47.25	0.25	5.50	0.00	0.00	0.00	53.00	53.00
1745 - 1800	0	0	33	0	0	0	0	0	33	33.00
1800 - 1815	0	0	23	0	0	0	0	0	23	23.00
1/2 Hourly Total	0	0	56	0	0	0	0	0	56	56.00
1/2 Hourly Average	0.00	0.00	28.00	0.00	0.00	0.00	0.00	0.00	28.00	28.00
Session Total	5	2	391	1	55	0	0	0	454	448.80
Session Average	0.50	0.20	39.10	0.10	5.50	0.00	0.00	0.00	45.40	44.88

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.3: Right from Moresby Parks Road to Red Lonning								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	5	0	0	1	0	0	6	6.50
0745 - 0800	0	0	6	0	1	1	0	0	8	8.50
0800 - 0815	0	0	14	0	3	1	0	0	18	18.50
0815 - 0830	0	0	17	0	4	0	0	0	21	21.00
Hourly Total	0	0	42	0	8	3	0	0	53	54.50
Hourly Average	0.00	0.00	10.50	0.00	2.00	0.75	0.00	0.00	13.25	13.63
0830 - 0845	0	0	20	0	2	0	0	0	22	22.00
0845 - 0900	0	0	7	0	0	0	0	1	8	9.00
0900 - 0915	0	0	8	0	2	0	0	1	11	12.00
0915 - 0930	0	0	2	0	2	0	0	0	4	4.00
Hourly Total	0	0	37	0	6	0	0	2	45	47.00
Hourly Average	0.00	0.00	9.25	0.00	1.50	0.00	0.00	0.50	11.25	11.75
Session Total	0	0	79	0	14	3	0	2	98	101.50
Session Average	0.00	0.00	9.88	0.00	1.75	0.38	0.00	0.25	12.25	12.69

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 2.3: Right from Moresby Parks Road to Red Lonning								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	12	0	1	0	0	0	14	13.40
1600 - 1615	0	0	9	0	2	0	0	0	11	11.00
1615 - 1630	0	0	4	0	3	0	0	0	7	7.00
1630 - 1645	0	0	12	0	0	0	0	0	12	12.00
Hourly Total	0	1	37	0	6	0	0	0	44	43.40
Hourly Average	0.00	0.25	9.25	0.00	1.50	0.00	0.00	0.00	11.00	10.85
1645 - 1700	0	0	6	0	0	0	0	0	6	6.00
1700 - 1715	0	0	14	0	0	0	0	0	14	14.00
1715 - 1730	0	0	12	0	3	0	0	0	15	15.00
1730 - 1745	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	36	0	3	0	0	0	39	39.00
Hourly Average	0.00	0.00	9.00	0.00	0.75	0.00	0.00	0.00	9.75	9.75
1745 - 1800	0	0	5	0	1	0	0	0	6	6.00
1800 - 1815	0	0	9	0	2	0	0	0	11	11.00
1/2 Hourly Total	0	0	14	0	3	0	0	0	17	17.00
1/2 Hourly Average	0.00	0.00	7.00	0.00	1.50	0.00	0.00	0.00	8.50	8.50
Session Total	0	1	87	0	12	0	0	0	100	99.40
Session Average	0.00	0.10	8.70	0.00	1.20	0.00	0.00	0.00	10.00	9.94

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.5: Left from Local Access to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
0900 - 0915	0	0	0	0	0	0	0	0	0	0.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	0	1	0	0	0	0	0	1	1.00
Session Average	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.13	0.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 2.5: Left from Local Access to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
1645 - 1700	0	0	1	0	1	0	0	0	2	2.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	1	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.50	0.50
1745 - 1800	0	0	1	0	0	0	0	0	1	1.00
1800 - 1815	0	0	2	0	0	0	0	0	2	2.00
1/2 Hourly Total	0	0	3	0	0	0	0	0	3	3.00
1/2 Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	0	0	5	0	1	0	0	0	6	6.00
Session Average	0.00	0.00	0.50	0.00	0.10	0.00	0.00	0.00	0.60	0.60

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.6: Northbound from Local Access to Red Lioning								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	1	0	0	0	1	1.00
0900 - 0915	0	0	0	0	0	0	0	0	0	0.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
Session Total	0	0	0	0	1	0	0	0	1	1.00
Session Average	0.00	0.00	0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

[illegible]

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

[illegible]

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.9: Left from Moresby Road to Red Lonning								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	21	0	1	0	0	0	22	22.00
0745 - 0800	0	0	22	0	5	1	2	0	30	33.10
0800 - 0815	0	0	21	0	2	0	0	0	23	23.00
0815 - 0830	0	0	34	0	3	0	3	0	40	43.90
Hourly Total	0	0	98	0	11	1	5	0	115	122.00
Hourly Average	0.00	0.00	24.50	0.00	2.75	0.25	1.25	0.00	28.75	30.50
0830 - 0845	0	0	63	0	3	0	2	0	68	70.60
0845 - 0900	1	0	42	0	1	1	1	0	46	47.00
0900 - 0915	0	0	24	0	2	1	2	2	31	36.10
0915 - 0930	0	0	21	0	0	0	1	1	23	25.30
Hourly Total	1	0	150	0	6	2	6	3	168	179.00
Hourly Average	0.25	0.00	37.50	0.00	1.50	0.50	1.50	0.75	42.00	44.75
Session Total	1	0	248	0	17	3	11	3	283	301.00
Session Average	0.13	0.00	31.00	0.00	2.13	0.38	1.38	0.38	35.38	37.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 2.9: Left from Moresby Road to Red Lonning								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0		38	0	12	0	1	0	51	52.30
1600 - 1615	0	0	50	1	7	1	0	1	60	61.50
1615 - 1630	1	0	56	0	10	0	0	0	67	66.20
1630 - 1645	0	0	66	0	13	0	0	0	79	79.00
Hourly Total	1	0	210	1	42	1	1	1	257	259.00
Hourly Average	0.25	0.00	52.50	0.25	10.50	0.25	0.25	0.25	64.25	64.75
1645 - 1700	1	0	50	0	8	0	0	0	59	58.20
1700 - 1715	0	0	55	0	7	1	0	1	64	65.50
1715 - 1730	0	0	43	0	7	0	0	0	50	50.00
1730 - 1745	0	0	61	0	2	0	0	0	63	63.00
Hourly Total	1	0	209	0	24	1	0	1	236	236.70
Hourly Average	0.25	0.00	52.25	0.00	6.00	0.25	0.00	0.25	59.00	59.18
1745 - 1800	0	0	37	0	6	0	0	0	43	43.00
1800 - 1815	0	0	21	0	2	0	0	0	23	23.00
1/2 Hourly Total	0	0	58	0	8	0	0	0	66	66.00
1/2 Hourly Average	0.00	0.00	29.00	0.00	4.00	0.00	0.00	0.00	33.00	33.00
Session Total	2	0	477	1	74	2	1	2	559	561.70
Session Average	0.20	0.00	47.70	0.10	7.40	0.20	0.10	0.20	55.90	56.17

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

Movement 2.10: Eastbound from Moresby Road to Moresby Parks Road									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	47	0	7	0	0	0	54	54.00
0745 - 0800	0	0	36	1	6	0	0	2	45	47.00
0800 - 0815	0	0	37	1	4	0	0	0	42	42.00
0815 - 0830	0	0	47	1	5	0	0	0	53	53.00
Hourly Total	0	0	167	3	22	0	0	2	194	196.00
Hourly Average	0.00	0.00	41.75	0.75	5.50	0.00	0.00	0.50	48.50	49.00
0830 - 0845	0	0	45	1	4	0	0	0	50	50.00
0845 - 0900	0	0	43	0	7	0	0	0	50	50.00
0900 - 0915	0	0	26	1	1	0	0	2	30	32.00
0915 - 0930	0	0	21	1	5	0	0	1	28	29.00
Hourly Total	0	0	135	3	17	0	0	3	158	161.00
Hourly Average	0.00	0.00	33.75	0.75	4.25	0.00	0.00	0.75	39.50	40.25
Session Total	0	0	302	6	39	0	0	5	352	357.00
Session Average	0.00	0.00	37.75	0.75	4.88	0.00	0.00	0.63	44.00	44.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

Movement 2.10: Eastbound from Moresby Road to Moresby Parks Road									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	2	3	65	0	7	2	0	0	79	76.60
1600 - 1615	1	2	89	0	9	0	0	0	101	99.00
1615 - 1630	3	0	94	1	8	2	0	1	109	108.60
1630 - 1645	0	0	106	0	3	0	0	0	109	109.00
Hourly Total	6	5	354	1	27	4	0	1	398	393.20
Hourly Average	1.50	1.25	88.50	0.25	6.75	1.00	0.00	0.25	99.50	98.30
1645 - 1700	0	1	88	1	13	0	0	0	103	102.40
1700 - 1715	1	1	82	1	6	0	1	0	92	91.90
1715 - 1730	0	2	73	0	0	0	0	0	75	73.80
1730 - 1745	0	1	53	0	2	0	0	0	56	55.40
Hourly Total	1	5	296	2	21	0	1	0	326	323.50
Hourly Average	0.25	1.25	74.00	0.50	5.25	0.00	0.25	0.00	81.50	80.88
1745 - 1800	0	0	53	1	6	0	1	0	61	62.30
1800 - 1815	0	0	43	0	1	0	0	0	44	44.00
1/2 Hourly Total	0	0	96	1	7	0	1	0	105	106.30
1/2 Hourly Average	0.00	0.00	48.00	0.50	3.50	0.00	0.50	0.00	52.50	53.15
Session Total	7	10	746	4	55	4	2	1	829	823.00
Session Average	0.70	1.00	74.60	0.40	5.50	0.40	0.20	0.10	82.90	82.30

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 2.13: Left from Red Lonning to Moresby Parks Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	3	0	1	0	0	0	4	4.00
0745 - 0800	0	0	7	0	2	0	0	0	9	9.00
0800 - 0815	0	0	7	0	0	0	0	0	7	7.00
0815 - 0830	0	0	6	0	2	0	0	0	8	8.00
Hourly Total	0	0	23	0	5	0	0	0	28	28.00
Hourly Average	0.00	0.00	5.75	0.00	1.25	0.00	0.00	0.00	7.00	7.00
0830 - 0845	0	0	6	0	1	0	0	0	7	7.00
0845 - 0900	0	0	12	0	0	0	0	0	12	12.00
0900 - 0915	0	0	8	0	1	1	0	0	10	10.50
0915 - 0930	1	0	0	0	1	1	0	0	3	2.70
Hourly Total	1	0	26	0	3	2	0	0	32	32.20
Hourly Average	0.25	0.00	6.50	0.00	0.75	0.50	0.00	0.00	8.00	8.05
Session Total	1	0	49	0	8	2	0	0	60	60.20
Session Average	0.13	0.00	6.13	0.00	1.00	0.25	0.00	0.00	7.50	7.53

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 2.13: Left from Red Lonning to Moresby Parks Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	7	0	0	0	0	0	7	7.00
1600 - 1615	0	0	15	0	0	1	0	0	16	16.50
1615 - 1630	0	0	11	0	2	0	0	0	13	13.00
1630 - 1645	1	0	11	0	0	0	0	0	12	11.20
Hourly Total	1	0	44	0	2	1	0	0	48	47.70
Hourly Average	0.25	0.00	11.00	0.00	0.50	0.25	0.00	0.00	12.00	11.93
1645 - 1700	0	0	7	0	0	0	0	0	7	7.00
1700 - 1715	0	0	12	0	1	0	0	0	13	13.00
1715 - 1730	0	0	7	0	0	0	0	0	7	7.00
1730 - 1745	1	0	8	0	1	0	0	0	10	9.20
Hourly Total	1	0	34	0	2	0	0	0	37	36.20
Hourly Average	0.25	0.00	8.50	0.00	0.50	0.00	0.00	0.00	9.25	9.05
1745 - 1800	0	0	6	0	1	1	0	0	8	8.50
1800 - 1815	0	0	4	0	0	1	0	0	5	5.50
1/2 Hourly Total	0	0	10	0	1	2	0	0	13	14.00
1/2 Hourly Average	0.00	0.00	5.00	0.00	0.50	1.00	0.00	0.00	6.50	7.00
Session Total	2	0	88	0	5	3	0	0	98	97.90
Session Average	0.20	0.00	8.80	0.00	0.50	0.30	0.00	0.00	9.80	9.79

Whitehaven, Cumbria
Classified Junction Count

Site 2 of 14
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 2.15: Right from Red Lonning to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	46	1	14	1	1	2	65	68.80
0745 - 0800	0	0	64	0	11	1	1	2	79	82.80
0800 - 0815	0	0	54	0	7	4	1	0	66	69.30
0815 - 0830	0	0	69	0	2	1	1	0	73	74.80
Hourly Total	0	0	233	1	34	7	4	4	283	295.70
Hourly Average	0.00	0.00	58.25	0.25	8.50	1.75	1.00	1.00	70.75	73.93
0830 - 0845	0	0	70	1	5	1	1	0	78	79.80
0845 - 0900	0	0	54	0	10	2	0	4	70	75.00
0900 - 0915	1	0	46	0	3	2	1	0	53	54.50
0915 - 0930	0	0	25	0	4	3	2	0	34	38.10
Hourly Total	1	0	195	1	22	8	4	4	235	247.40
Hourly Average	0.25	0.00	48.75	0.25	5.50	2.00	1.00	1.00	58.75	61.85
Session Total	1	0	428	2	56	15	8	8	518	543.10
Session Average	0.13	0.00	53.50	0.25	7.00	1.88	1.00	1.00	64.75	67.89

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 2.15: Right from Red Lonning to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	38	2	5	2	0	0	47	48.00
1600 - 1615	0	0	59	0	4	2	0	1	66	68.00
1615 - 1630	0	0	61	0	4	0	1	0	66	67.30
1630 - 1645	0	0	44	0	6	1	0	0	51	51.50
Hourly Total	0	0	202	2	19	5	1	1	230	234.80
Hourly Average	0.00	0.00	50.50	0.50	4.75	1.25	0.25	0.25	57.50	58.70
1645 - 1700	1	1	63	0	6	0	0	0	71	69.60
1700 - 1715	0	0	62	1	7	1	1	0	72	73.80
1715 - 1730	0	0	57	0	6	1	0	0	64	64.50
1730 - 1745	0	0	33	0	3	1	1	0	38	39.80
Hourly Total	1	1	215	1	22	3	2	0	245	247.70
Hourly Average	0.25	0.25	53.75	0.25	5.50	0.75	0.50	0.00	61.25	61.93
1745 - 1800	0	0	44	0	5	1	0	1	51	52.50
1800 - 1815	0	1	52	0	4	1	0	0	58	57.90
1/2 Hourly Total	0	1	96	0	9	2	0	1	109	110.40
1/2 Hourly Average	0.00	0.50	48.00	0.00	4.50	1.00	0.00	0.50	54.50	55.20
Session Total	1	2	513	3	50	10	3	2	584	592.90
Session Average	0.10	0.20	51.30	0.30	5.00	1.00	0.30	0.20	58.40	59.29

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long

lat 54.543476° lon -3.557071°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 3.1: Left from Moresby Road (North) to Grassroots Garden Center Access								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	6	0	5	0	0	0	11	11.00
0745 - 0800	0	0	14	0	0	0	0	0	14	14.00
0800 - 0815	0	0	14	0	3	0	0	0	17	17.00
0815 - 0830	0	0	14	0	1	0	0	0	15	15.00
Hourly Total	0	0	48	0	9	0	0	0	57	57.00
Hourly Average	0.00	0.00	12.00	0.00	2.25	0.00	0.00	0.00	14.25	14.25
0830 - 0845	0	0	16	0	0	0	0	0	16	16.00
0845 - 0900	0	0	10	1	3	0	0	0	14	14.00
0900 - 0915	0	0	15	0	5	1	0	0	21	21.50
0915 - 0930	0	0	8	0	0	1	0	0	9	9.50
Hourly Total	0	0	49	1	8	2	0	0	60	61.00
Hourly Average	0.00	0.00	12.25	0.25	2.00	0.50	0.00	0.00	15.00	15.25
Session Total	0	0	97	1	17	2	0	0	117	118.00
Session Average	0.00	0.00	12.13	0.13	2.13	0.25	0.00	0.00	14.63	14.75

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 3.1: Left from Moresby Road (North) to Grassroots Garden Center Access								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	13	0	2	0	0	0	15	15.00
1600 - 1615	0	0	15	0	1	0	0	0	16	16.00
1615 - 1630	1	0	28	0	3	0	0	0	32	31.20
1630 - 1645	1	0	16	0	2	0	0	0	19	18.20
Hourly Total	2	0	72	0	8	0	0	0	82	80.40
Hourly Average	0.50	0.00	18.00	0.00	2.00	0.00	0.00	0.00	20.50	20.10
1645 - 1700	0	0	17	0	5	0	0	0	22	22.00
1700 - 1715	0	0	15	0	0	1	0	0	16	16.50
1715 - 1730	0	0	18	0	3	0	0	0	21	21.00
1730 - 1745	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	60	0	9	1	0	0	70	70.50
Hourly Average	0.00	0.00	15.00	0.00	2.25	0.25	0.00	0.00	17.50	17.63
1745 - 1800	0	0	9	0	1	0	0	0	10	10.00
1800 - 1815	0	0	18	0	2	0	0	0	20	20.00
1/2 Hourly Total	0	0	27	0	3	0	0	0	30	30.00
1/2 Hourly Average	0.00	0.00	13.50	0.00	1.50	0.00	0.00	0.00	15.00	15.00
Session Total	2	0	159	0	20	1	0	0	182	180.90
Session Average	0.20	0.00	15.90	0.00	2.00	0.10	0.00	0.00	18.20	18.09

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long

lat 54.543476° lon -3.557071°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 3.2: Westbound from Moresby Road (North) to Moresby Road (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	4	75	1	17	6	1	2	106	109.90
0745 - 0800	0	0	98	0	12	1	0	2	113	115.50
0800 - 0815	0	0	83	2	11	2	3	0	101	105.90
0815 - 0830	0	0	120	1	15	2	0	0	138	139.00
Hourly Total	0	4	376	4	55	11	4	4	458	470.30
Hourly Average	0.00	1.00	94.00	1.00	13.75	2.75	1.00	1.00	114.50	117.58
0830 - 0845	0	0	116	0	14	2	1	0	133	135.30
0845 - 0900	0	0	81	0	13	1	1	4	100	105.80
0900 - 0915	2	0	86	0	8	0	1	1	98	98.70
0915 - 0930	1	0	28	0	9	3	1	0	42	44.00
Hourly Total	3	0	311	0	44	6	4	5	373	383.80
Hourly Average	0.75	0.00	77.75	0.00	11.00	1.50	1.00	1.25	93.25	95.95
Session Total	3	4	687	4	99	17	8	9	831	854.10
Session Average	0.38	0.50	85.88	0.50	12.38	2.13	1.00	1.13	103.88	106.76

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 3.2: Westbound from Moresby Road (North) to Moresby Road (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	67	1	11	0	0	0	80	79.20
1600 - 1615	1	0	71	1	5	3	0	1	82	83.70
1615 - 1630	1	1	71	0	7	0	1	0	81	80.90
1630 - 1645	0	1	70	0	21	2	0	0	94	94.40
Hourly Total	3	2	279	2	44	5	1	1	337	338.20
Hourly Average	0.75	0.50	69.75	0.50	11.00	1.25	0.25	0.25	84.25	84.55
1645 - 1700	0	1	88	1	11	1	0	0	102	101.90
1700 - 1715	0	0	105	1	12	1	1	0	120	121.80
1715 - 1730	1	0	85	0	8	0	0	0	94	93.20
1730 - 1745	0	0	72	0	5	0	1	0	78	79.30
Hourly Total	1	1	350	2	36	2	2	0	394	396.20
Hourly Average	0.25	0.25	87.50	0.50	9.00	0.50	0.50	0.00	98.50	99.05
1745 - 1800	0	0	67	0	4	1	0	1	73	74.50
1800 - 1815	0	1	60	0	2	1	0	0	64	63.90
1/2 Hourly Total	0	1	127	0	6	2	0	1	137	138.40
1/2 Hourly Average	0.00	0.50	63.50	0.00	3.00	1.00	0.00	0.50	68.50	69.20
Session Total	4	4	756	4	86	9	3	2	868	872.80
Session Average	0.40	0.40	75.60	0.40	8.60	0.90	0.30	0.20	86.80	87.28

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long

lat 54.543476° lon -3.557071°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 3.3: Left from Grassroots Garden Center Access to Moresby Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	3	0	0	0	0	0	3	3.00
0745 - 0800	0	0	1	0	1	0	0	0	2	2.00
0800 - 0815	0	0	6	0	1	0	0	0	7	7.00
0815 - 0830	0	0	7	0	2	0	0	0	9	9.00
Hourly Total	0	0	17	0	4	0	0	0	21	21.00
Hourly Average	0.00	0.00	4.25	0.00	1.00	0.00	0.00	0.00	5.25	5.25
0830 - 0845	0	0	7	0	0	0	0	0	7	7.00
0845 - 0900	0	0	5	0	0	0	0	0	5	5.00
0900 - 0915	0	0	4	0	0	0	0	0	4	4.00
0915 - 0930	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	18	0	0	0	0	0	18	18.00
Hourly Average	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	4.50	4.50
Session Total	0	0	35	0	4	0	0	0	39	39.00
Session Average	0.00	0.00	4.38	0.00	0.50	0.00	0.00	0.00	4.88	4.88

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 3.3: Left from Grassroots Garden Center Access to Moresby Road (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	3	0	1	0	0	0	4	4.00
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	2	0	1	0	0	0	3	3.00
1630 - 1645	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	12	0	2	0	0	0	14	14.00
Hourly Average	0.00	0.00	3.00	0.00	0.50	0.00	0.00	0.00	3.50	3.50
1645 - 1700	0	0	4	0	0	0	0	0	4	4.00
1700 - 1715	0	0	7	0	0	0	0	0	7	7.00
1715 - 1730	0	0	4	0	1	0	0	0	5	5.00
1730 - 1745	2	0	4	0	0	0	0	0	6	4.40
Hourly Total	2	0	19	0	1	0	0	0	22	20.40
Hourly Average	0.50	0.00	4.75	0.00	0.25	0.00	0.00	0.00	5.50	5.10
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1800 - 1815	0	0	3	0	0	0	0	0	3	3.00
1/2 Hourly Total	0	0	3	0	0	0	0	0	3	3.00
1/2 Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	2	0	34	0	3	0	0	0	39	37.40
Session Average	0.20	0.00	3.40	0.00	0.30	0.00	0.00	0.00	3.90	3.74

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14
Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long
lat 54.543476° lon -3.557071°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 3.4: Right from Grassroots Garden Center Access to Moresby Road (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	13	0	5	0	0	0	18	18.00
0745 - 0800	0	0	17	0	1	1	0	0	19	19.50
0800 - 0815	0	0	13	0	3	0	0	0	16	16.00
0815 - 0830	0	0	21	1	2	0	0	0	24	24.00
Hourly Total	0	0	64	1	11	1	0	0	77	77.50
Hourly Average	0.00	0.00	16.00	0.25	2.75	0.25	0.00	0.00	19.25	19.38
0830 - 0845	0	0	28	0	3	0	0	0	31	31.00
0845 - 0900	0	0	14	0	0	1	0	0	15	15.50
0900 - 0915	0	0	10	0	3	0	0	0	13	13.00
0915 - 0930	0	0	6	1	1	0	0	0	8	8.00
Hourly Total	0	0	58	1	7	1	0	0	67	67.50
Hourly Average	0.00	0.00	14.50	0.25	1.75	0.25	0.00	0.00	16.75	16.88
Session Total	0	0	122	2	18	2	0	0	144	145.00
Session Average	0.00	0.00	15.25	0.25	2.25	0.25	0.00	0.00	18.00	18.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 3.4: Right from Grassroots Garden Center Access to Moresby Road (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	2	1	22	1	3	0	0	0	29	26.80
1600 - 1615	0	0	35	0	3	0	0	0	38	38.00
1615 - 1630	1	0	20	0	7	0	0	0	28	27.20
1630 - 1645	0	0	41	0	8	0	0	0	49	49.00
Hourly Total	3	1	118	1	21	0	0	0	144	141.00
Hourly Average	0.75	0.25	29.50	0.25	5.25	0.00	0.00	0.00	36.00	35.25
1645 - 1700	0	2	31	0	3	0	0	0	36	34.80
1700 - 1715	1	0	28	0	3	0	0	0	32	31.20
1715 - 1730	0	1	16	0	2	0	0	1	20	20.40
1730 - 1745	0	1	22	0	0	0	0	0	23	22.40
Hourly Total	1	4	97	0	8	0	0	1	111	108.80
Hourly Average	0.25	1.00	24.25	0.00	2.00	0.00	0.00	0.25	27.75	27.20
1745 - 1800	0	0	19	0	8	0	0	0	27	27.00
1800 - 1815	0	0	12	0	2	0	0	0	14	14.00
1/2 Hourly Total	0	0	31	0	10	0	0	0	41	41.00
1/2 Hourly Average	0.00	0.00	15.50	0.00	5.00	0.00	0.00	0.00	20.50	20.50
Session Total	4	5	246	1	39	0	0	1	296	290.80
Session Average	0.40	0.50	24.60	0.10	3.90	0.00	0.00	0.10	29.60	29.08

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long

lat 54.543476° lon -3.557071°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 3.5: Eastbound from Moresby Road (South) to Moresby Road (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	53	0	4	0	0	0	57	57.00
0745 - 0800	0	0	45	1	11	0	2	2	61	65.60
0800 - 0815	0	0	47	1	3	0	0	0	51	51.00
0815 - 0830	0	0	61	0	5	0	3	0	69	72.90
Hourly Total	0	0	206	2	23	0	5	2	238	246.50
Hourly Average	0.00	0.00	51.50	0.50	5.75	0.00	1.25	0.50	59.50	61.63
0830 - 0845	0	0	78	1	7	0	0	0	86	86.00
0845 - 0900	0	0	73	0	7	0	2	0	82	84.60
0900 - 0915	1	0	43	1	0	1	2	4	52	58.30
0915 - 0930	0	0	35	0	3	0	2	2	42	46.60
Hourly Total	1	0	229	2	17	1	6	6	262	275.50
Hourly Average	0.25	0.00	57.25	0.50	4.25	0.25	1.50	1.50	65.50	68.88
Session Total	1	0	435	4	40	1	11	8	500	522.00
Session Average	0.13	0.00	54.38	0.50	5.00	0.13	1.38	1.00	62.50	65.25

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 3.5: Eastbound from Moresby Road (South) to Moresby Road (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	2	82	0	15	2	1	0	102	103.10
1600 - 1615	1	2	102	0	13	1	0	1	120	119.50
1615 - 1630	2	0	126	1	15	1	0	1	146	145.90
1630 - 1645	1	0	131	0	5	1	0	0	138	137.70
Hourly Total	4	4	441	1	48	5	1	2	506	506.20
Hourly Average	1.00	1.00	110.25	0.25	12.00	1.25	0.25	0.50	126.50	126.55
1645 - 1700	1	0	112	0	13	0	0	0	126	125.20
1700 - 1715	0	0	110	2	12	1	1	0	126	127.80
1715 - 1730	0	1	98	0	5	0	0	0	104	103.40
1730 - 1745	0	0	90	0	7	0	0	0	97	97.00
Hourly Total	1	1	410	2	37	1	1	0	453	453.40
Hourly Average	0.25	0.25	102.50	0.50	9.25	0.25	0.25	0.00	113.25	113.35
1745 - 1800	0	0	71	1	4	0	1	0	77	78.30
1800 - 1815	0	0	50	0	1	0	0	0	51	51.00
1/2 Hourly Total	0	0	121	1	5	0	1	0	128	129.30
1/2 Hourly Average	0.00	0.00	60.50	0.50	2.50	0.00	0.50	0.00	64.00	64.65
Session Total	5	5	972	4	90	6	3	2	1087	1088.90
Session Average	0.50	0.50	97.20	0.40	9.00	0.60	0.30	0.20	108.70	108.89

Whitehaven, Cumbria
Classified Junction Count

Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long

lat 54.543476° lon -3.557071°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 3.6: Right from Moresby Road (South) to Grassroots Garden Center Access								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	1	0	0	0	1	1.00
0745 - 0800	0	0	0	0	2	0	0	0	2	2.00
0800 - 0815	0	0	1	0	0	0	0	0	1	1.00
0815 - 0830	0	0	2	0	1	0	0	0	3	3.00
Hourly Total	0	0	3	0	4	0	0	0	7	7.00
Hourly Average	0.00	0.00	0.75	0.00	1.00	0.00	0.00	0.00	1.75	1.75
0830 - 0845	0	0	5	0	1	0	0	0	6	6.00
0845 - 0900	0	0	2	0	2	0	0	0	4	4.00
0900 - 0915	0	0	3	0	0	0	0	0	3	3.00
0915 - 0930	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	12	0	3	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.00	0.00	0.75	0.00	0.00	0.00	3.75	3.75
Session Total	0	0	15	0	7	0	0	0	22	22.00
Session Average	0.00	0.00	1.88	0.00	0.88	0.00	0.00	0.00	2.75	2.75

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 3.6: Right from Moresby Road (South) to Grassroots Garden Center Access								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	4	0	0	0	0	0	4	4.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	5	0	0	0	0	0	5	5.00
1630 - 1645	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	15	0	0	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.75	0.00	0.00	0.00	0.00	0.00	3.75	3.75
1645 - 1700	0	0	1	0	0	0	0	0	1	1.00
1700 - 1715	0	1	1	0	0	0	0	0	2	1.40
1715 - 1730	0	0	3	0	1	0	0	0	4	4.00
1730 - 1745	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	1	8	0	1	0	0	0	10	9.40
Hourly Average	0.00	0.25	2.00	0.00	0.25	0.00	0.00	0.00	2.50	2.35
1745 - 1800	0	0	3	0	0	0	0	0	3	3.00
1800 - 1815	0	0	2	0	0	0	0	0	2	2.00
1/2 Hourly Total	0	0	5	0	0	0	0	0	5	5.00
1/2 Hourly Average	0.00	0.00	2.50	0.00	0.00	0.00	0.00	0.00	2.50	2.50
Session Total	0	1	28	0	1	0	0	0	30	29.40
Session Average	0.00	0.10	2.80	0.00	0.10	0.00	0.00	0.00	3.00	2.94

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 4.1: Southbound from Red Lonning (North) to Red Lonning (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	13	1	3	0	0	0	17	17.00
0745 - 0800	0	0	20	0	0	1	0	0	21	21.50
0800 - 0815	0	0	24	0	2	0	0	1	27	28.00
0815 - 0830	0	0	28	0	1	0	0	0	29	29.00
Hourly Total	0	0	85	1	6	1	0	1	94	95.50
Hourly Average	0.00	0.00	21.25	0.25	1.50	0.25	0.00	0.25	23.50	23.88
0830 - 0845	0	0	35	0	3	0	0	0	38	38.00
0845 - 0900	0	0	13	0	0	0	0	0	13	13.00
0900 - 0915	1	0	12	0	2	0	0	0	15	14.20
0915 - 0930	0	0	8	0	4	0	0	0	12	12.00
Hourly Total	1	0	68	0	9	0	0	0	78	77.20
Hourly Average	0.25	0.00	17.00	0.00	2.25	0.00	0.00	0.00	19.50	19.30
Session Total	1	0	153	1	15	1	0	1	172	172.70
Session Average	0.13	0.00	19.13	0.13	1.88	0.13	0.00	0.13	21.50	21.59

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 4.1: Southbound from Red Lonning (North) to Red Lonning (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	23	0	1	0	0	0	25	24.20
1600 - 1615	0	0	36	0	1	0	0	1	38	39.00
1615 - 1630	0	0	22	0	1	0	0	0	23	23.00
1630 - 1645	0	0	21	0	1	0	0	0	22	22.00
Hourly Total	1	0	102	0	4	0	0	1	108	108.20
Hourly Average	0.25	0.00	25.50	0.00	1.00	0.00	0.00	0.25	27.00	27.05
1645 - 1700	0	0	16	0	1	0	0	0	17	17.00
1700 - 1715	0	0	18	0	1	1	0	0	20	20.50
1715 - 1730	0	0	10	0	0	0	0	0	10	10.00
1730 - 1745	0	0	16	0	1	0	0	0	17	17.00
Hourly Total	0	0	60	0	3	1	0	0	64	64.50
Hourly Average	0.00	0.00	15.00	0.00	0.75	0.25	0.00	0.00	16.00	16.13
1745 - 1800	0	0	21	0	2	0	0	0	23	23.00
1800 - 1815	0	0	19	0	2	0	0	0	21	21.00
1/2 Hourly Total	0	0	40	0	4	0	0	0	44	44.00
1/2 Hourly Average	0.00	0.00	20.00	0.00	2.00	0.00	0.00	0.00	22.00	22.00
Session Total	1	0	202	0	11	1	0	1	216	216.70
Session Average	0.10	0.00	20.20	0.00	1.10	0.10	0.00	0.10	21.60	21.67

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 4.2: Right from Red Lonning (North) to Caldbeck Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	6	0	1	0	0	0	7	7.00
0745 - 0800	0	0	8	0	1	0	0	0	9	9.00
0800 - 0815	0	0	11	0	0	0	0	0	11	11.00
0815 - 0830	0	0	39	0	1	0	0	0	40	40.00
Hourly Total	0	0	64	0	3	0	0	0	67	67.00
Hourly Average	0.00	0.00	16.00	0.00	0.75	0.00	0.00	0.00	16.75	16.75
0830 - 0845	0	0	57	0	2	0	0	0	59	59.00
0845 - 0900	0	0	10	0	1	0	0	0	11	11.00
0900 - 0915	0	0	8	0	0	0	0	0	8	8.00
0915 - 0930	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	80	0	3	0	0	0	83	83.00
Hourly Average	0.00	0.00	20.00	0.00	0.75	0.00	0.00	0.00	20.75	20.75
Session Total	0	0	144	0	6	0	0	0	150	150.00
Session Average	0.00	0.00	18.00	0.00	0.75	0.00	0.00	0.00	18.75	18.75

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 4.2: Right from Red Lonning (North) to Caldbeck Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	15	0	2	0	0	1	18	19.00
1600 - 1615	0	0	23	0	2	0	0	0	25	25.00
1615 - 1630	0	0	20	0	2	0	0	0	22	22.00
1630 - 1645	0	0	18	0	2	0	0	0	20	20.00
Hourly Total	0	0	76	0	8	0	0	1	85	86.00
Hourly Average	0.00	0.00	19.00	0.00	2.00	0.00	0.00	0.25	21.25	21.50
1645 - 1700	0	0	23	0	4	0	0	0	27	27.00
1700 - 1715	0	0	25	0	2	0	0	0	27	27.00
1715 - 1730	0	0	14	0	1	0	0	0	15	15.00
1730 - 1745	0	0	22	0	1	0	0	0	23	23.00
Hourly Total	0	0	84	0	8	0	0	0	92	92.00
Hourly Average	0.00	0.00	21.00	0.00	2.00	0.00	0.00	0.00	23.00	23.00
1745 - 1800	0	0	6	0	1	0	0	0	7	7.00
1800 - 1815	0	0	9	0	1	0	0	0	10	10.00
1/2 Hourly Total	0	0	15	0	2	0	0	0	17	17.00
1/2 Hourly Average	0.00	0.00	7.50	0.00	1.00	0.00	0.00	0.00	8.50	8.50
Session Total	0	0	175	0	18	0	0	1	194	195.00
Session Average	0.00	0.00	17.50	0.00	1.80	0.00	0.00	0.10	19.40	19.50

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 4.3: Left from Red Lonning (South) to Caldbeck Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	3	0	1	0	0	0	4	4.00
0745 - 0800	0	0	5	0	1	0	0	1	7	8.00
0800 - 0815	0	0	4	0	0	0	0	1	5	6.00
0815 - 0830	0	0	15	0	2	0	0	0	17	17.00
Hourly Total	0	0	27	0	4	0	0	2	33	35.00
Hourly Average	0.00	0.00	6.75	0.00	1.00	0.00	0.00	0.50	8.25	8.75
0830 - 0845	0	0	19	0	1	0	0	0	20	20.00
0845 - 0900	0	0	4	0	1	0	0	1	6	7.00
0900 - 0915	0	0	4	0	0	0	0	0	4	4.00
0915 - 0930	0	0	4	0	1	0	0	1	6	7.00
Hourly Total	0	0	31	0	3	0	0	2	36	38.00
Hourly Average	0.00	0.00	7.75	0.00	0.75	0.00	0.00	0.50	9.00	9.50
Session Total	0	0	58	0	7	0	0	4	69	73.00
Session Average	0.00	0.00	7.25	0.00	0.88	0.00	0.00	0.50	8.63	9.13

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 4.3: Left from Red Lonning (South) to Caldbeck Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	10	0	0	0	0	1	11	12.00
1600 - 1615	0	0	10	0	1	0	0	0	11	11.00
1615 - 1630	0	0	11	0	1	0	0	0	12	12.00
1630 - 1645	0	0	13	0	3	0	0	1	17	18.00
Hourly Total	0	0	44	0	5	0	0	2	51	53.00
Hourly Average	0.00	0.00	11.00	0.00	1.25	0.00	0.00	0.50	12.75	13.25
1645 - 1700	0	0	14	0	0	0	0	1	15	16.00
1700 - 1715	0	0	7	0	1	0	0	0	8	8.00
1715 - 1730	0	0	10	0	0	0	0	1	11	12.00
1730 - 1745	0	0	13	0	0	0	0	0	13	13.00
Hourly Total	0	0	44	0	1	0	0	2	47	49.00
Hourly Average	0.00	0.00	11.00	0.00	0.25	0.00	0.00	0.50	11.75	12.25
1745 - 1800	0	0	18	0	0	0	0	0	18	18.00
1800 - 1815	0	0	4	0	1	0	0	1	6	7.00
1/2 Hourly Total	0	0	22	0	1	0	0	1	24	25.00
1/2 Hourly Average	0.00	0.00	11.00	0.00	0.50	0.00	0.00	0.50	12.00	12.50
Session Total	0	0	110	0	7	0	0	5	122	127.00
Session Average	0.00	0.00	11.00	0.00	0.70	0.00	0.00	0.50	12.20	12.70

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14
Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long
lat 54.543535° lon -3.561531°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 4.4: Northbound from Red Lonning (South) to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	12	0	0	0	0	0	12	12.00
0745 - 0800	0	0	19	0	1	0	0	0	20	20.00
0800 - 0815	0	0	27	0	2	0	0	0	29	29.00
0815 - 0830	0	0	37	0	0	0	0	0	37	37.00
Hourly Total	0	0	95	0	3	0	0	0	98	98.00
Hourly Average	0.00	0.00	23.75	0.00	0.75	0.00	0.00	0.00	24.50	24.50
0830 - 0845	0	0	36	0	1	0	0	0	37	37.00
0845 - 0900	0	0	11	0	1	0	0	0	12	12.00
0900 - 0915	0	0	21	0	2	0	0	0	23	23.00
0915 - 0930	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	0	0	77	0	4	0	0	0	81	81.00
Hourly Average	0.00	0.00	19.25	0.00	1.00	0.00	0.00	0.00	20.25	20.25
Session Total	0	0	172	0	7	0	0	0	179	179.00
Session Average	0.00	0.00	21.50	0.00	0.88	0.00	0.00	0.00	22.38	22.38

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 4.4: Northbound from Red Lonning (South) to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	27	0	1	0	0	0	28	28.00
1600 - 1615	1	0	29	0	1	0	0	0	31	30.20
1615 - 1630	0	0	24	0	3	0	0	0	27	27.00
1630 - 1645	0	1	28	0	5	0	0	1	35	35.40
Hourly Total	1	1	108	0	10	0	0	1	121	120.60
Hourly Average	0.25	0.25	27.00	0.00	2.50	0.00	0.00	0.25	30.25	30.15
1645 - 1700	1	0	26	0	4	0	0	0	31	30.20
1700 - 1715	1	0	28	1	2	0	0	0	32	31.20
1715 - 1730	1	0	36	0	1	0	0	0	38	37.20
1730 - 1745	1	0	32	0	0	0	0	0	33	32.20
Hourly Total	4	0	122	1	7	0	0	0	134	130.80
Hourly Average	1.00	0.00	30.50	0.25	1.75	0.00	0.00	0.00	33.50	32.70
1745 - 1800	0	0	36	0	1	0	0	0	37	37.00
1800 - 1815	0	0	16	0	2	0	0	0	18	18.00
1/2 Hourly Total	0	0	52	0	3	0	0	0	55	55.00
1/2 Hourly Average	0.00	0.00	26.00	0.00	1.50	0.00	0.00	0.00	27.50	27.50
Session Total	5	1	282	1	20	0	0	1	310	306.40
Session Average	0.50	0.10	28.20	0.10	2.00	0.00	0.00	0.10	31.00	30.64

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 4.5: Left from Caldbeck Road to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	6	0	4	0	0	0	10	10.00
0745 - 0800	0	0	18	0	3	0	0	0	21	21.00
0800 - 0815	0	0	21	0	1	0	0	1	23	24.00
0815 - 0830	0	0	20	0	0	0	0	0	20	20.00
Hourly Total	0	0	65	0	8	0	0	1	74	75.00
Hourly Average	0.00	0.00	16.25	0.00	2.00	0.00	0.00	0.25	18.50	18.75
0830 - 0845	0	0	32	0	2	0	0	0	34	34.00
0845 - 0900	0	0	19	0	0	0	0	0	19	19.00
0900 - 0915	0	0	4	0	1	0	0	0	5	5.00
0915 - 0930	1	0	3	1	0	0	0	0	5	4.20
Hourly Total	1	0	58	1	3	0	0	0	63	62.20
Hourly Average	0.25	0.00	14.50	0.25	0.75	0.00	0.00	0.00	15.75	15.55
Session Total	1	0	123	1	11	0	0	1	137	137.20
Session Average	0.13	0.00	15.38	0.13	1.38	0.00	0.00	0.13	17.13	17.15

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 4.5: Left from Caldbeck Road to Red Lonning (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	15	0	0	0	0	0	15	15.00
1600 - 1615	0	0	13	0	2	0	0	0	15	15.00
1615 - 1630	0	0	19	0	1	0	0	0	20	20.00
1630 - 1645	0	0	8	0	0	0	0	0	8	8.00
Hourly Total	0	0	55	0	3	0	0	0	58	58.00
Hourly Average	0.00	0.00	13.75	0.00	0.75	0.00	0.00	0.00	14.50	14.50
1645 - 1700	0	0	16	0	0	0	0	0	16	16.00
1700 - 1715	0	0	7	0	2	0	0	0	9	9.00
1715 - 1730	0	0	14	0	0	0	0	0	14	14.00
1730 - 1745	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	42	0	2	0	0	0	44	44.00
Hourly Average	0.00	0.00	10.50	0.00	0.50	0.00	0.00	0.00	11.00	11.00
1745 - 1800	0	0	15	0	0	0	0	0	15	15.00
1800 - 1815	0	0	4	0	0	0	0	0	4	4.00
1/2 Hourly Total	0	0	19	0	0	0	0	0	19	19.00
1/2 Hourly Average	0.00	0.00	9.50	0.00	0.00	0.00	0.00	0.00	9.50	9.50
Session Total	0	0	116	0	5	0	0	0	121	121.00
Session Average	0.00	0.00	11.60	0.00	0.50	0.00	0.00	0.00	12.10	12.10

Whitehaven, Cumbria
Classified Junction Count

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 4.6: Right from Caldbeck Road to Red Lonning (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	8	0	1	0	0	0	10	9.40
0745 - 0800	0	0	6	0	1	0	0	1	8	9.00
0800 - 0815	0	0	8	0	0	0	0	0	8	8.00
0815 - 0830	0	0	1	0	1	0	0	1	3	4.00
Hourly Total	0	1	23	0	3	0	0	2	29	30.40
Hourly Average	0.00	0.25	5.75	0.00	0.75	0.00	0.00	0.50	7.25	7.60
0830 - 0845	0	0	7	0	0	1	0	0	8	8.50
0845 - 0900	0	0	7	0	0	0	0	1	8	9.00
0900 - 0915	0	0	7	0	0	0	0	0	7	7.00
0915 - 0930	1	0	2	0	0	0	0	1	4	4.20
Hourly Total	1	0	23	0	0	1	0	2	27	28.70
Hourly Average	0.25	0.00	5.75	0.00	0.00	0.25	0.00	0.50	6.75	7.18
Session Total	1	1	46	0	3	1	0	4	56	59.10
Session Average	0.13	0.13	5.75	0.00	0.38	0.13	0.00	0.50	7.00	7.39

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 4.6: Right from Caldbeck Road to Red Lonning (South)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	4	1	2	0	0	2	9	11.00
1600 - 1615	0	0	5	0	1	0	0	1	7	8.00
1615 - 1630	0	0	5	0	1	0	0	0	6	6.00
1630 - 1645	0	0	2	0	0	0	0	1	3	4.00
Hourly Total	0	0	16	1	4	0	0	4	25	29.00
Hourly Average	0.00	0.00	4.00	0.25	1.00	0.00	0.00	1.00	6.25	7.25
1645 - 1700	0	0	10	0	0	0	0	0	10	10.00
1700 - 1715	0	0	12	0	0	0	0	0	12	12.00
1715 - 1730	0	0	5	0	0	0	0	1	6	7.00
1730 - 1745	0	0	8	0	1	0	0	0	9	9.00
Hourly Total	0	0	35	0	1	0	0	1	37	38.00
Hourly Average	0.00	0.00	8.75	0.00	0.25	0.00	0.00	0.25	9.25	9.50
1745 - 1800	0	0	7	0	0	0	0	1	8	9.00
1800 - 1815	0	0	6	0	1	0	0	1	8	9.00
1/2 Hourly Total	0	0	13	0	1	0	0	2	16	18.00
1/2 Hourly Average	0.00	0.00	6.50	0.00	0.50	0.00	0.00	1.00	8.00	9.00
Session Total	0	0	64	1	6	0	0	7	78	85.00
Session Average	0.00	0.00	6.40	0.10	0.60	0.00	0.00	0.70	7.80	8.50

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 5.1: Left from Moresby Road to B5295 Cleator Moor Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	50	1	11	0	0	2	65	66.40
0745 - 0800	0	0	68	0	12	0	1	3	84	88.30
0800 - 0815	0	0	47	1	8	2	1	0	59	61.30
0815 - 0830	0	0	58	0	7	0	0	1	66	67.00
Hourly Total	0	1	223	2	38	2	2	6	274	283.00
Hourly Average	0.00	0.25	55.75	0.50	9.50	0.50	0.50	1.50	68.50	70.75
0830 - 0845	0	0	63	0	7	2	1	0	73	75.30
0845 - 0900	0	0	44	0	10	1	0	3	58	61.50
0900 - 0915	2	0	70	0	6	0	0	3	81	82.40
0915 - 0930	1	0	23	0	8	0	2	1	35	37.80
Hourly Total	3	0	200	0	31	3	3	7	247	257.00
Hourly Average	0.75	0.00	50.00	0.00	7.75	0.75	0.75	1.75	61.75	64.25
Session Total	3	1	423	2	69	5	5	13	521	540.00
Session Average	0.38	0.13	52.88	0.25	8.63	0.63	0.63	1.63	65.13	67.50

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 5.1: Left from Moresby Road to B5295 Cleator Moor Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	51	0	6	1	0	2	60	62.50
1600 - 1615	0	0	63	1	6	2	0	2	74	77.00
1615 - 1630	1	1	55	0	7	0	0	0	64	62.60
1630 - 1645	0	1	64	0	13	2	0	0	80	80.40
Hourly Total	1	2	233	1	32	5	0	4	278	282.50
Hourly Average	0.25	0.50	58.25	0.25	8.00	1.25	0.00	1.00	69.50	70.63
1645 - 1700	1	1	65	1	6	1	0	1	76	76.10
1700 - 1715	1	0	80	1	7	1	0	0	90	89.70
1715 - 1730	0	0	54	0	5	0	0	1	60	61.00
1730 - 1745	0	0	58	0	4	0	0	0	62	62.00
Hourly Total	2	1	257	2	22	2	0	2	288	288.80
Hourly Average	0.50	0.25	64.25	0.50	5.50	0.50	0.00	0.50	72.00	72.20
1745 - 1800	0	0	61	0	3	1	0	1	66	67.50
1800 - 1815	0	1	42	0	3	1	0	1	48	48.90
1/2 Hourly Total	0	1	103	0	6	2	0	2	114	116.40
1/2 Hourly Average	0.00	0.50	51.50	0.00	3.00	1.00	0.00	1.00	57.00	58.20
Session Total	3	4	593	3	60	9	0	8	680	687.70
Session Average	0.30	0.40	59.30	0.30	6.00	0.90	0.00	0.80	68.00	68.77

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 5.2: Right from Moresby Road to B5295 Main Street								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	3	36	1	6	8	0	0	54	56.20
0745 - 0800	0	0	63	1	5	1	0	0	70	70.50
0800 - 0815	0	0	53	0	6	0	2	1	62	65.60
0815 - 0830	0	0	62	0	8	0	0	1	71	72.00
Hourly Total	0	3	214	2	25	9	2	2	257	264.30
Hourly Average	0.00	0.75	53.50	0.50	6.25	2.25	0.50	0.50	64.25	66.08
0830 - 0845	0	0	54	0	9	1	0	1	65	66.50
0845 - 0900	0	0	46	0	1	0	0	0	47	47.00
0900 - 0915	0	0	45	0	6	1	1	1	54	56.80
0915 - 0930	0	0	21	0	1	1	0	0	23	23.50
Hourly Total	0	0	166	0	17	3	1	2	189	193.80
Hourly Average	0.00	0.00	41.50	0.00	4.25	0.75	0.25	0.50	47.25	48.45
Session Total	0	3	380	2	42	12	3	4	446	458.10
Session Average	0.00	0.38	47.50	0.25	5.25	1.50	0.38	0.50	55.75	57.26

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 5.2: Right from Moresby Road to B5295 Main Street								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	39	0	5	0	1	0	46	46.50
1600 - 1615	1	0	41	1	4	1	0	1	49	49.70
1615 - 1630	0	0	46	0	5	0	0	0	51	51.00
1630 - 1645	0	0	41	0	11	0	0	0	52	52.00
Hourly Total	2	0	167	1	25	1	1	1	198	199.20
Hourly Average	0.50	0.00	41.75	0.25	6.25	0.25	0.25	0.25	49.50	49.80
1645 - 1700	0	0	54	0	5	0	1	0	60	61.30
1700 - 1715	0	0	62	0	10	0	0	0	72	72.00
1715 - 1730	0	0	38	0	6	0	0	0	44	44.00
1730 - 1745	1	0	43	0	2	0	1	0	47	47.50
Hourly Total	1	0	197	0	23	0	2	0	223	224.80
Hourly Average	0.25	0.00	49.25	0.00	5.75	0.00	0.50	0.00	55.75	56.20
1745 - 1800	0	0	40	0	6	0	0	0	46	46.00
1800 - 1815	0	0	48	0	0	0	0	0	48	48.00
1/2 Hourly Total	0	0	88	0	6	0	0	0	94	94.00
1/2 Hourly Average	0.00	0.00	44.00	0.00	3.00	0.00	0.00	0.00	47.00	47.00
Session Total	3	0	452	1	54	1	3	1	515	518.00
Session Average	0.30	0.00	45.20	0.10	5.40	0.10	0.30	0.10	51.50	51.80

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Date
Wednesday 21 February 2018

0730 - 0930 (Weekday AM Peak)

Date
Wednesday 21 February 2018

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

Movement 5.4: Left from B5295 Cleator Moor Road to B5295 Main Street									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	35	0	2	0	0	1	39	39.40
0745 - 0800	0	1	50	0	12	2	0	3	68	71.40
0800 - 0815	0	1	40	0	2	1	0	0	44	43.90
0815 - 0830	0	0	53	0	2	1	1	2	59	62.80
Hourly Total	0	3	178	0	18	4	1	6	210	217.50
Hourly Average	0.00	0.75	44.50	0.00	4.50	1.00	0.25	1.50	52.50	54.38
0830 - 0845	0	0	69	0	8	0	0	2	79	81.00
0845 - 0900	0	0	74	0	4	1	0	3	82	85.50
0900 - 0915	0	0	46	0	2	1	0	0	49	49.50
0915 - 0930	0	0	45	0	2	0	0	0	47	47.00
Hourly Total	0	0	234	0	16	2	0	5	257	263.00
Hourly Average	0.00	0.00	58.50	0.00	4.00	0.50	0.00	1.25	64.25	65.75
Session Total	0	3	412	0	34	6	1	11	467	480.50
Session Average	0.00	0.38	51.50	0.00	4.25	0.75	0.13	1.38	58.38	60.06

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

Movement 5.4: Left from B5295 Cleator Moor Road to B5295 Main Street									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	63	0	2	1	0	1	68	68.70
1600 - 1615	0	0	72	0	1	0	0	3	76	79.00
1615 - 1630	0	0	54	0	2	1	0	0	57	57.50
1630 - 1645	1	1	71	0	2	0	0	0	75	73.60
Hourly Total	2	1	260	0	7	2	0	4	276	278.80
Hourly Average	0.50	0.25	65.00	0.00	1.75	0.50	0.00	1.00	69.00	69.70
1645 - 1700	0	0	71	0	3	0	2	0	76	78.60
1700 - 1715	0	0	57	0	4	0	0	1	62	63.00
1715 - 1730	2	1	72	0	4	1	0	1	81	80.30
1730 - 1745	0	1	67	0	3	1	0	0	72	71.90
Hourly Total	2	2	267	0	14	2	2	2	291	293.80
Hourly Average	0.50	0.50	66.75	0.00	3.50	0.50	0.50	0.50	72.75	73.45
1745 - 1800	1	0	59	0	7	0	1	0	68	68.50
1800 - 1815	0	0	50	0	3	0	0	0	53	53.00
1/2 Hourly Total	1	0	109	0	10	0	1	0	121	121.50
1/2 Hourly Average	0.50	0.00	54.50	0.00	5.00	0.00	0.50	0.00	60.50	60.75
Session Total	5	3	636	0	31	4	3	6	688	694.10
Session Average	0.50	0.30	63.60	0.00	3.10	0.40	0.30	0.60	68.80	69.41

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 5.5: Right from B5295 Cleator Moor Road to Moresby Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	39	0	5	0	0	0	44	44.00
0745 - 0800	0	0	38	0	9	0	0	2	49	51.00
0800 - 0815	0	0	63	0	2	0	0	0	65	65.00
0815 - 0830	0	0	81	0	9	0	2	3	95	100.60
Hourly Total	0	0	221	0	25	0	2	5	253	260.60
Hourly Average	0.00	0.00	55.25	0.00	6.25	0.00	0.50	1.25	63.25	65.15
0830 - 0845	0	0	75	0	6	0	0	2	83	85.00
0845 - 0900	0	0	45	0	2	0	1	1	49	51.30
0900 - 0915	0	0	34	1	3	0	1	1	40	42.30
0915 - 0930	0	0	26	0	4	0	1	1	32	34.30
Hourly Total	0	0	180	1	15	0	3	5	204	212.90
Hourly Average	0.00	0.00	45.00	0.25	3.75	0.00	0.75	1.25	51.00	53.23
Session Total	0	0	401	1	40	0	5	10	457	473.50
Session Average	0.00	0.00	50.13	0.13	5.00	0.00	0.63	1.25	57.13	59.19

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 5.5: Right from B5295 Cleator Moor Road to Moresby Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	67	1	10	2	0	1	82	83.40
1600 - 1615	1	1	84	0	15	0	0	1	102	101.60
1615 - 1630	2	0	94	0	12	0	0	0	108	106.40
1630 - 1645	1	0	117	0	10	1	0	1	130	130.70
Hourly Total	4	2	362	1	47	3	0	3	422	422.10
Hourly Average	1.00	0.50	90.50	0.25	11.75	0.75	0.00	0.75	105.50	105.53
1645 - 1700	1	0	96	0	14	0	0	1	112	112.20
1700 - 1715	0	0	90	2	9	1	0	0	102	102.50
1715 - 1730	0	0	86	0	4	0	0	1	91	92.00
1730 - 1745	0	0	85	0	6	0	0	0	91	91.00
Hourly Total	1	0	357	2	33	1	0	2	396	397.70
Hourly Average	0.25	0.00	89.25	0.50	8.25	0.25	0.00	0.50	99.00	99.43
1745 - 1800	0	0	76	0	5	0	0	0	81	81.00
1800 - 1815	0	0	36	0	4	0	0	1	41	42.00
1/2 Hourly Total	0	0	112	0	9	0	0	1	122	123.00
1/2 Hourly Average	0.00	0.00	56.00	0.00	4.50	0.00	0.00	0.50	61.00	61.50
Session Total	5	2	831	3	89	4	0	6	940	942.80
Session Average	0.50	0.20	83.10	0.30	8.90	0.40	0.00	0.60	94.00	94.28

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Date
Wednesday 21 February 2018

0730 - 0930 (Weekday AM Peak)

Date
Wednesday 21 February 2018

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 5.7: Left from B5295 Main Street to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	29	0	5	0	1	1	36	38.30
0745 - 0800	0	0	45	1	9	0	1	0	56	57.30
0800 - 0815	0	0	46	1	5	0	0	2	54	56.00
0815 - 0830	0	0	91	0	6	1	1	2	101	104.80
Hourly Total	0	0	211	2	25	1	3	5	247	256.40
Hourly Average	0.00	0.00	52.75	0.50	6.25	0.25	0.75	1.25	61.75	64.10
0830 - 0845	0	0	112	1	6	0	0	0	119	119.00
0845 - 0900	0	0	58	0	10	0	1	4	73	78.30
0900 - 0915	1	0	34	0	1	2	1	0	39	40.50
0915 - 0930	0	0	22	0	4	0	1	1	28	30.30
Hourly Total	1	0	226	1	21	2	3	5	259	268.10
Hourly Average	0.25	0.00	56.50	0.25	5.25	0.50	0.75	1.25	64.75	67.03
Session Total	1	0	437	3	46	3	6	10	506	524.50
Session Average	0.13	0.00	54.63	0.38	5.75	0.38	0.75	1.25	63.25	65.56

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 5.7: Left from B5295 Main Street to Moresby Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	50	0	6	0	1	0	58	58.70
1600 - 1615	0	0	60	0	2	1	0	0	63	63.50
1615 - 1630	0	0	66	0	6	2	0	1	75	77.00
1630 - 1645	0	1	60	0	1	0	0	1	63	63.40
Hourly Total	0	2	236	0	15	3	1	2	259	262.60
Hourly Average	0.00	0.50	59.00	0.00	3.75	0.75	0.25	0.50	64.75	65.65
1645 - 1700	0	0	55	0	7	0	0	0	62	62.00
1700 - 1715	0	1	56	0	9	1	1	0	68	69.20
1715 - 1730	0	1	73	0	5	0	0	0	79	78.40
1730 - 1745	0	0	53	0	2	0	0	1	56	57.00
Hourly Total	0	2	237	0	23	1	1	1	265	266.60
Hourly Average	0.00	0.50	59.25	0.00	5.75	0.25	0.25	0.25	66.25	66.65
1745 - 1800	0	0	52	1	3	0	1	0	57	58.30
1800 - 1815	0	0	43	0	1	0	0	0	44	44.00
1/2 Hourly Total	0	0	95	1	4	0	1	0	101	102.30
1/2 Hourly Average	0.00	0.00	47.50	0.50	2.00	0.00	0.50	0.00	50.50	51.15
Session Total	0	4	568	1	42	4	3	3	625	631.50
Session Average	0.00	0.40	56.80	0.10	4.20	0.40	0.30	0.30	62.50	63.15

Whitehaven, Cumbria
Classified Junction Count

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 5.8: Right from B5295 Main Street to B5295 Cleator Moor Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	30	0	5	1	0	0	36	36.50
0745 - 0800	0	0	26	0	4	2	1	0	33	35.30
0800 - 0815	1	0	22	0	6	0	1	0	30	30.50
0815 - 0830	0	0	40	0	6	1	0	0	47	47.50
Hourly Total	1	0	118	0	21	4	2	0	146	149.80
Hourly Average	0.25	0.00	29.50	0.00	5.25	1.00	0.50	0.00	36.50	37.45
0830 - 0845	0	0	43	0	4	0	0	0	47	47.00
0845 - 0900	0	0	49	0	5	0	0	0	54	54.00
0900 - 0915	0	0	29	0	6	0	1	0	36	37.30
0915 - 0930	1	0	23	0	8	1	1	0	34	35.00
Hourly Total	1	0	144	0	23	1	2	0	171	173.30
Hourly Average	0.25	0.00	36.00	0.00	5.75	0.25	0.50	0.00	42.75	43.33
Session Total	2	0	262	0	44	5	4	0	317	323.10
Session Average	0.25	0.00	32.75	0.00	5.50	0.63	0.50	0.00	39.63	40.39

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 5.8: Right from B5295 Main Street to B5295 Cleator Moor Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	1	54	0	4	0	0	1	61	60.60
1600 - 1615	2	1	47	1	3	0	0	1	55	53.80
1615 - 1630	1	1	66	0	1	1	0	0	70	69.10
1630 - 1645	1	0	55	1	4	0	0	2	63	64.20
Hourly Total	5	3	222	2	12	1	0	4	249	247.70
Hourly Average	1.25	0.75	55.50	0.50	3.00	0.25	0.00	1.00	62.25	61.93
1645 - 1700	0	0	63	0	2	1	0	0	66	66.50
1700 - 1715	0	1	54	1	2	0	0	0	58	57.40
1715 - 1730	0	0	50	0	2	0	0	0	52	52.00
1730 - 1745	0	0	60	0	1	0	0	0	61	61.00
Hourly Total	0	1	227	1	7	1	0	0	237	236.90
Hourly Average	0.00	0.25	56.75	0.25	1.75	0.25	0.00	0.00	59.25	59.23
1745 - 1800	0	1	53	0	0	0	0	1	55	55.40
1800 - 1815	0	0	43	0	0	0	0	0	43	43.00
1/2 Hourly Total	0	1	96	0	0	0	0	1	98	98.40
1/2 Hourly Average	0.00	0.50	48.00	0.00	0.00	0.00	0.00	0.50	49.00	49.20
Session Total	5	5	545	3	19	2	0	5	584	583.00
Session Average	0.50	0.50	54.50	0.30	1.90	0.20	0.00	0.50	58.40	58.30

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Date
Wednesday 21 February 2018

0730 - 0930 (Weekday AM Peak)

Date
Wednesday 21 February 2018

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 6.1: Southbound from B5295 Main Street (North) to B5295 Main Street (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	4	66	1	8	8	0	1	88	90.60
0745 - 0800	0	1	94	1	11	3	0	4	114	118.90
0800 - 0815	0	1	83	0	8	1	2	1	96	99.50
0815 - 0830	0	0	100	0	11	1	1	2	115	118.80
Hourly Total	0	6	343	2	38	13	3	8	413	427.80
Hourly Average	0.00	1.50	85.75	0.50	9.50	3.25	0.75	2.00	103.25	106.95
0830 - 0845	0	0	106	0	15	1	0	3	125	128.50
0845 - 0900	0	0	106	0	5	1	0	3	115	118.50
0900 - 0915	0	0	85	0	6	2	1	1	95	98.30
0915 - 0930	0	0	54	0	3	1	0	0	58	58.50
Hourly Total	0	0	351	0	29	5	1	7	393	403.80
Hourly Average	0.00	0.00	87.75	0.00	7.25	1.25	0.25	1.75	98.25	100.95
Session Total	0	6	694	2	67	18	4	15	806	831.60
Session Average	0.00	0.75	86.75	0.25	8.38	2.25	0.50	1.88	100.75	103.95

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 6.1: Southbound from B5295 Main Street (North) to B5295 Main Street (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	83	0	7	1	1	1	94	96.00
1600 - 1615	0	0	85	1	5	1	0	4	96	100.50
1615 - 1630	0	0	84	0	5	1	0	0	90	90.50
1630 - 1645	0	1	93	0	9	0	0	0	103	102.40
Hourly Total	1	1	345	1	26	3	1	5	383	389.40
Hourly Average	0.25	0.25	86.25	0.25	6.50	0.75	0.25	1.25	95.75	97.35
1645 - 1700	0	0	106	0	6	0	3	0	115	118.90
1700 - 1715	0	0	102	0	11	0	0	1	114	115.00
1715 - 1730	1	1	97	0	7	1	0	1	108	108.10
1730 - 1745	0	1	90	0	6	1	1	0	99	100.20
Hourly Total	1	2	395	0	30	2	4	2	436	442.20
Hourly Average	0.25	0.50	98.75	0.00	7.50	0.50	1.00	0.50	109.00	110.55
1745 - 1800	1	0	82	0	11	0	1	0	95	95.50
1800 - 1815	0	0	81	0	4	0	0	0	85	85.00
1/2 Hourly Total	1	0	163	0	15	0	1	0	180	180.50
1/2 Hourly Average	0.50	0.00	81.50	0.00	7.50	0.00	0.50	0.00	90.00	90.25
Session Total	3	3	903	1	71	5	6	7	999	1012.10
Session Average	0.30	0.30	90.30	0.10	7.10	0.50	0.60	0.70	99.90	101.21

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 6.2: Right from B5295 Main Street (North) to Thornton Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	6	0	1	0	0	0	7	7.00
0745 - 0800	0	0	16	0	3	0	0	0	19	19.00
0800 - 0815	0	0	8	0	1	0	0	0	9	9.00
0815 - 0830	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	0	0	44	0	5	0	0	0	49	49.00
Hourly Average	0.00	0.00	11.00	0.00	1.25	0.00	0.00	0.00	12.25	12.25
0830 - 0845	0	0	17	0	2	0	0	0	19	19.00
0845 - 0900	0	0	13	0	1	0	0	0	14	14.00
0900 - 0915	0	0	7	0	1	0	0	0	8	8.00
0915 - 0930	0	0	12	0	0	0	0	0	12	12.00
Hourly Total	0	0	49	0	4	0	0	0	53	53.00
Hourly Average	0.00	0.00	12.25	0.00	1.00	0.00	0.00	0.00	13.25	13.25
Session Total	0	0	93	0	9	0	0	0	102	102.00
Session Average	0.00	0.00	11.63	0.00	1.13	0.00	0.00	0.00	12.75	12.75

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 6.2: Right from B5295 Main Street (North) to Thornton Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	16	0	1	0	0	0	18	17.20
1600 - 1615	1	0	29	0	0	0	0	0	30	29.20
1615 - 1630	0	0	16	0	2	0	0	0	18	18.00
1630 - 1645	1	0	20	0	3	0	0	0	24	23.20
Hourly Total	3	0	81	0	6	0	0	0	90	87.60
Hourly Average	0.75	0.00	20.25	0.00	1.50	0.00	0.00	0.00	22.50	21.90
1645 - 1700	0	0	19	0	2	0	0	0	21	21.00
1700 - 1715	0	0	19	0	3	0	0	0	22	22.00
1715 - 1730	1	0	15	0	1	0	0	0	17	16.20
1730 - 1745	1	0	18	0	1	0	0	0	20	19.20
Hourly Total	2	0	71	0	7	0	0	0	80	78.40
Hourly Average	0.50	0.00	17.75	0.00	1.75	0.00	0.00	0.00	20.00	19.60
1745 - 1800	0	0	17	0	1	0	0	0	18	18.00
1800 - 1815	0	0	17	0	0	0	0	0	17	17.00
1/2 Hourly Total	0	0	34	0	1	0	0	0	35	35.00
1/2 Hourly Average	0.00	0.00	17.00	0.00	0.50	0.00	0.00	0.00	17.50	17.50
Session Total	5	0	186	0	14	0	0	0	205	201.00
Session Average	0.50	0.00	18.60	0.00	1.40	0.00	0.00	0.00	20.50	20.10

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 6.3: Left from B5295 Main Street (South) to Thornton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	5	0	0	0	0	0	5	5.00
0745 - 0800	0	0	8	0	1	0	0	0	9	9.00
0800 - 0815	0	0	10	0	3	0	0	0	13	13.00
0815 - 0830	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	0	0	37	0	4	0	0	0	41	41.00
Hourly Average	0.00	0.00	9.25	0.00	1.00	0.00	0.00	0.00	10.25	10.25
0830 - 0845	0	0	22	0	0	0	0	0	22	22.00
0845 - 0900	0	0	24	0	2	0	0	0	26	26.00
0900 - 0915	0	0	9	0	2	0	0	0	11	11.00
0915 - 0930	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	59	0	4	0	0	0	63	63.00
Hourly Average	0.00	0.00	14.75	0.00	1.00	0.00	0.00	0.00	15.75	15.75
Session Total	0	0	96	0	8	0	0	0	104	104.00
Session Average	0.00	0.00	12.00	0.00	1.00	0.00	0.00	0.00	13.00	13.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 6.3: Left from B5295 Main Street (South) to Thornton Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	16	0	1	0	0	0	17	17.00
1600 - 1615	0	1	20	0	0	0	0	0	21	20.40
1615 - 1630	0	0	25	0	2	0	0	0	27	27.00
1630 - 1645	0	1	22	0	3	0	0	0	26	25.40
Hourly Total	0	2	83	0	6	0	0	0	91	89.80
Hourly Average	0.00	0.50	20.75	0.00	1.50	0.00	0.00	0.00	22.75	22.45
1645 - 1700	0	0	20	0	3	0	0	0	23	23.00
1700 - 1715	0	0	18	0	3	0	0	0	21	21.00
1715 - 1730	0	0	25	0	0	0	0	0	25	25.00
1730 - 1745	0	0	18	0	1	0	0	0	19	19.00
Hourly Total	0	0	81	0	7	0	0	0	88	88.00
Hourly Average	0.00	0.00	20.25	0.00	1.75	0.00	0.00	0.00	22.00	22.00
1745 - 1800	0	0	15	0	3	0	0	0	18	18.00
1800 - 1815	0	0	10	0	2	0	0	0	12	12.00
1/2 Hourly Total	0	0	25	0	5	0	0	0	30	30.00
1/2 Hourly Average	0.00	0.00	12.50	0.00	2.50	0.00	0.00	0.00	15.00	15.00
Session Total	0	2	189	0	18	0	0	0	209	207.80
Session Average	0.00	0.20	18.90	0.00	1.80	0.00	0.00	0.00	20.90	20.78

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 6.4: Northbound from B5295 Main Street (South) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	44	0	6	0	1	0	51	52.30
0745 - 0800	0	0	61	1	10	3	1	0	76	78.80
0800 - 0815	0	0	55	1	9	0	1	3	69	73.30
0815 - 0830	0	0	109	0	14	2	2	2	129	134.60
Hourly Total	0	0	269	2	39	5	5	5	325	339.00
Hourly Average	0.00	0.00	67.25	0.50	9.75	1.25	1.25	1.25	81.25	84.75
0830 - 0845	0	0	117	1	9	0	0	1	128	129.00
0845 - 0900	0	0	80	0	10	0	1	3	94	98.30
0900 - 0915	0	0	50	0	7	2	2	0	61	64.60
0915 - 0930	1	0	34	0	11	1	2	1	50	53.30
Hourly Total	1	0	281	1	37	3	5	5	333	345.20
Hourly Average	0.25	0.00	70.25	0.25	9.25	0.75	1.25	1.25	83.25	86.30
Session Total	1	0	550	3	76	8	10	10	658	684.20
Session Average	0.13	0.00	68.75	0.38	9.50	1.00	1.25	1.25	82.25	85.53

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 6.4: Northbound from B5295 Main Street (South) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	2	88	0	9	0	0	0	100	98.00
1600 - 1615	2	1	91	2	2	1	1	1	101	101.60
1615 - 1630	1	0	100	0	5	2	0	2	110	112.20
1630 - 1645	0	1	108	0	3	0	0	3	115	117.40
Hourly Total	4	4	387	2	19	3	1	6	426	429.20
Hourly Average	1.00	1.00	96.75	0.50	4.75	0.75	0.25	1.50	106.50	107.30
1645 - 1700	0	0	82	0	10	1	0	0	93	93.50
1700 - 1715	0	2	88	1	9	0	1	1	102	103.10
1715 - 1730	0	1	111	0	4	1	0	0	117	116.90
1730 - 1745	0	0	101	0	2	0	0	0	103	103.00
Hourly Total	0	3	382	1	25	2	1	1	415	416.50
Hourly Average	0.00	0.75	95.50	0.25	6.25	0.50	0.25	0.25	103.75	104.13
1745 - 1800	0	1	81	0	2	0	1	1	86	87.70
1800 - 1815	0	0	78	0	0	0	0	0	78	78.00
1/2 Hourly Total	0	1	159	0	2	0	1	1	164	165.70
1/2 Hourly Average	0.00	0.50	79.50	0.00	1.00	0.00	0.50	0.50	82.00	82.85
Session Total	4	8	928	3	46	5	3	8	1005	1011.40
Session Average	0.40	0.80	92.80	0.30	4.60	0.50	0.30	0.80	100.50	101.14

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 6.5: Left from Thornton Road to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	18	0	2	0	0	0	20	20.00
0745 - 0800	0	0	13	0	1	0	0	0	14	14.00
0800 - 0815	1	0	11	0	2	0	0	0	14	13.20
0815 - 0830	0	0	25	0	2	0	0	0	27	27.00
Hourly Total	1	0	67	0	7	0	0	0	75	74.20
Hourly Average	0.25	0.00	16.75	0.00	1.75	0.00	0.00	0.00	18.75	18.55
0830 - 0845	0	0	38	0	1	0	0	0	39	39.00
0845 - 0900	0	0	25	0	2	0	0	0	27	27.00
0900 - 0915	0	0	8	0	0	0	0	0	8	8.00
0915 - 0930	1	0	9	0	4	0	0	0	14	13.20
Hourly Total	1	0	80	0	7	0	0	0	88	87.20
Hourly Average	0.25	0.00	20.00	0.00	1.75	0.00	0.00	0.00	22.00	21.80
Session Total	2	0	147	0	14	0	0	0	163	161.40
Session Average	0.25	0.00	18.38	0.00	1.75	0.00	0.00	0.00	20.38	20.18

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 6.5: Left from Thornton Road to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	11	0	2	0	0	0	13	13.00
1600 - 1615	1	0	19	0	2	0	0	0	22	21.20
1615 - 1630	0	1	31	0	1	1	0	0	34	33.90
1630 - 1645	0	0	15	0	3	0	0	0	18	18.00
Hourly Total	1	1	76	0	8	1	0	0	87	86.10
Hourly Average	0.25	0.25	19.00	0.00	2.00	0.25	0.00	0.00	21.75	21.53
1645 - 1700	0	0	26	0	2	0	0	0	28	28.00
1700 - 1715	0	0	23	0	1	0	0	0	24	24.00
1715 - 1730	0	0	18	0	1	0	0	0	19	19.00
1730 - 1745	0	0	14	0	1	0	0	0	15	15.00
Hourly Total	0	0	81	0	5	0	0	0	86	86.00
Hourly Average	0.00	0.00	20.25	0.00	1.25	0.00	0.00	0.00	21.50	21.50
1745 - 1800	0	0	17	1	1	0	0	0	19	19.00
1800 - 1815	0	0	9	0	1	0	0	0	10	10.00
1/2 Hourly Total	0	0	26	1	2	0	0	0	29	29.00
1/2 Hourly Average	0.00	0.00	13.00	0.50	1.00	0.00	0.00	0.00	14.50	14.50
Session Total	1	1	183	1	15	1	0	0	202	201.10
Session Average	0.10	0.10	18.30	0.10	1.50	0.10	0.00	0.00	20.20	20.11

Whitehaven, Cumbria
Classified Junction Count

Site 6 of 14
B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long
lat 54.539837° lon -3.562212°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 6.6: Right from Thornton Road to B5295 Main Street (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	15	0	1	0	0	0	16	16.00
0745 - 0800	0	0	16	0	2	0	0	0	18	18.00
0800 - 0815	1	0	13	0	4	0	0	0	18	17.20
0815 - 0830	0	0	15	0	2	0	0	0	17	17.00
Hourly Total	1	0	59	0	9	0	0	0	69	68.20
Hourly Average	0.25	0.00	14.75	0.00	2.25	0.00	0.00	0.00	17.25	17.05
0830 - 0845	0	0	28	0	1	0	0	0	29	29.00
0845 - 0900	0	0	37	1	2	0	0	0	40	40.00
0900 - 0915	0	0	11	0	0	0	0	0	11	11.00
0915 - 0930	0	0	17	0	0	0	0	0	17	17.00
Hourly Total	0	0	93	1	3	0	0	0	97	97.00
Hourly Average	0.00	0.00	23.25	0.25	0.75	0.00	0.00	0.00	24.25	24.25
Session Total	1	0	152	1	12	0	0	0	166	165.20
Session Average	0.13	0.00	19.00	0.13	1.50	0.00	0.00	0.00	20.75	20.65

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 6.6: Right from Thornton Road to B5295 Main Street (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	5	0	1	0	0	0	6	6.00
1600 - 1615	0	0	7	0	1	0	0	0	8	8.00
1615 - 1630	0	0	17	0	0	0	0	0	17	17.00
1630 - 1645	0	0	14	0	2	0	0	0	16	16.00
Hourly Total	0	0	43	0	4	0	0	0	47	47.00
Hourly Average	0.00	0.00	10.75	0.00	1.00	0.00	0.00	0.00	11.75	11.75
1645 - 1700	1	0	16	0	2	0	0	0	19	18.20
1700 - 1715	0	0	12	0	0	0	0	0	12	12.00
1715 - 1730	0	0	12	0	0	0	0	0	12	12.00
1730 - 1745	0	0	14	0	2	0	0	0	16	16.00
Hourly Total	1	0	54	0	4	0	0	0	59	58.20
Hourly Average	0.25	0.00	13.50	0.00	1.00	0.00	0.00	0.00	14.75	14.55
1745 - 1800	0	0	15	0	0	0	0	0	15	15.00
1800 - 1815	0	0	18	0	1	0	0	0	19	19.00
1/2 Hourly Total	0	0	33	0	1	0	0	0	34	34.00
1/2 Hourly Average	0.00	0.00	16.50	0.00	0.50	0.00	0.00	0.00	17.00	17.00
Session Total	1	0	130	0	9	0	0	0	140	139.20
Session Average	0.10	0.00	13.00	0.00	0.90	0.00	0.00	0.00	14.00	13.92

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14
B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long
lat 54.536189° lon -3.568600°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.1: Left from B5295 Main Street (East) to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	2	32	0	2	5	1	0	42	44.60
0745 - 0800	0	0	52	2	2	1	0	0	57	57.50
0800 - 0815	0	1	26	0	4	0	0	0	31	30.40
0815 - 0830	0	0	40	0	7	1	0	0	48	48.50
Hourly Total	0	3	150	2	15	7	1	0	178	181.00
Hourly Average	0.00	0.75	37.50	0.50	3.75	1.75	0.25	0.00	44.50	45.25
0830 - 0845	0	0	52	0	6	2	0	1	61	63.00
0845 - 0900	0	0	44	0	3	0	0	1	48	49.00
0900 - 0915	0	0	39	0	2	0	0	0	41	41.00
0915 - 0930	0	0	16	0	1	0	0	0	17	17.00
Hourly Total	0	0	151	0	12	2	0	2	167	170.00
Hourly Average	0.00	0.00	37.75	0.00	3.00	0.50	0.00	0.50	41.75	42.50
Session Total	0	3	301	2	27	9	1	2	345	351.00
Session Average	0.00	0.38	37.63	0.25	3.38	1.13	0.13	0.25	43.13	43.88

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.1: Left from B5295 Main Street (East) to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	25	0	1	0	0	0	27	26.20
1600 - 1615	0	0	30	0	2	1	0	0	33	33.50
1615 - 1630	0	0	37	0	4	0	0	1	42	43.00
1630 - 1645	0	0	41	0	7	0	0	0	48	48.00
Hourly Total	1	0	133	0	14	1	0	1	150	150.70
Hourly Average	0.25	0.00	33.25	0.00	3.50	0.25	0.00	0.25	37.50	37.68
1645 - 1700	1	0	43	0	5	0	0	0	49	48.20
1700 - 1715	0	0	50	0	4	0	0	0	54	54.00
1715 - 1730	0	0	23	0	4	0	0	0	27	27.00
1730 - 1745	0	0	25	0	1	0	0	0	26	26.00
Hourly Total	1	0	141	0	14	0	0	0	156	155.20
Hourly Average	0.25	0.00	35.25	0.00	3.50	0.00	0.00	0.00	39.00	38.80
1745 - 1800	0	0	25	0	1	0	0	0	26	26.00
1800 - 1815	0	0	33	0	1	0	0	0	34	34.00
1/2 Hourly Total	0	0	58	0	2	0	0	0	60	60.00
1/2 Hourly Average	0.00	0.00	29.00	0.00	1.00	0.00	0.00	0.00	30.00	30.00
Session Total	2	0	332	0	30	1	0	1	366	365.90
Session Average	0.20	0.00	33.20	0.00	3.00	0.10	0.00	0.10	36.60	36.59

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.2: Right from B5295 Main Street (East) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	2	39	0	7	1	0	0	49	48.30
0745 - 0800	1	1	44	0	9	3	0	4	62	66.10
0800 - 0815	0	0	60	0	6	1	1	1	69	71.80
0815 - 0830	0	0	70	0	7	1	1	0	79	80.80
Hourly Total	1	3	213	0	29	6	2	5	259	267.00
Hourly Average	0.25	0.75	53.25	0.00	7.25	1.50	0.50	1.25	64.75	66.75
0830 - 0845	0	0	100	0	10	0	0	2	112	114.00
0845 - 0900	0	0	84	0	5	0	0	0	89	89.00
0900 - 0915	0	0	72	0	6	1	1	1	81	83.80
0915 - 0930	0	0	59	1	1	2	0	0	63	64.00
Hourly Total	0	0	315	1	22	3	1	3	345	350.80
Hourly Average	0.00	0.00	78.75	0.25	5.50	0.75	0.25	0.75	86.25	87.70
Session Total	1	3	528	1	51	9	3	8	604	617.80
Session Average	0.13	0.38	66.00	0.13	6.38	1.13	0.38	1.00	75.50	77.23

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.2: Right from B5295 Main Street (East) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	59	0	4	1	1	0	65	66.80
1600 - 1615	0	0	75	1	5	0	0	2	83	85.00
1615 - 1630	0	0	55	0	4	1	0	0	60	60.50
1630 - 1645	0	1	71	0	4	0	0	0	76	75.40
Hourly Total	0	1	260	1	17	2	1	2	284	287.70
Hourly Average	0.00	0.25	65.00	0.25	4.25	0.50	0.25	0.50	71.00	71.93
1645 - 1700	0	0	83	0	3	0	3	0	89	92.90
1700 - 1715	0	0	62	0	5	0	0	0	67	67.00
1715 - 1730	1	0	70	0	5	1	0	1	78	78.70
1730 - 1745	0	2	72	0	5	1	1	0	81	81.60
Hourly Total	1	2	287	0	18	2	4	1	315	320.20
Hourly Average	0.25	0.50	71.75	0.00	4.50	0.50	1.00	0.25	78.75	80.05
1745 - 1800	1	0	64	0	10	0	1	0	76	76.50
1800 - 1815	0	0	62	0	3	0	0	0	65	65.00
1/2 Hourly Total	1	0	126	0	13	0	1	0	141	141.50
1/2 Hourly Average	0.50	0.00	63.00	0.00	6.50	0.00	0.50	0.00	70.50	70.75
Session Total	2	3	673	1	48	4	6	3	740	749.40
Session Average	0.20	0.30	67.30	0.10	4.80	0.40	0.60	0.30	74.00	74.94

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.4: Northbound from B5295 Egremont Road to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	15	0	3	0	0	0	18	18.00
0745 - 0800	0	1	15	0	2	0	0	1	19	19.40
0800 - 0815	0	0	13	0	3	0	0	0	16	16.00
0815 - 0830	0	0	14	0	2	0	0	1	17	18.00
Hourly Total	0	1	57	0	10	0	0	2	70	71.40
Hourly Average	0.00	0.25	14.25	0.00	2.50	0.00	0.00	0.50	17.50	17.85
0830 - 0845	0	0	20	0	1	0	0	0	21	21.00
0845 - 0900	0	0	20	1	0	0	0	1	22	23.00
0900 - 0915	0	0	13	0	0	0	0	1	14	15.00
0915 - 0930	0	0	15	0	0	0	0	1	16	17.00
Hourly Total	0	0	68	1	1	0	0	3	73	76.00
Hourly Average	0.00	0.00	17.00	0.25	0.25	0.00	0.00	0.75	18.25	19.00
Session Total	0	1	125	1	11	0	0	5	143	147.40
Session Average	0.00	0.13	15.63	0.13	1.38	0.00	0.00	0.63	17.88	18.43

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.4: Northbound from B5295 Egremont Road to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	10	0	1	0	0	1	12	13.00
1600 - 1615	0	0	8	0	0	0	0	0	8	8.00
1615 - 1630	0	0	19	0	2	1	0	2	24	26.50
1630 - 1645	0	0	14	0	0	0	0	1	15	16.00
Hourly Total	0	0	51	0	3	1	0	4	59	63.50
Hourly Average	0.00	0.00	12.75	0.00	0.75	0.25	0.00	1.00	14.75	15.88
1645 - 1700	0	0	20	0	1	0	0	1	22	23.00
1700 - 1715	0	2	17	0	0	1	0	0	20	19.30
1715 - 1730	0	0	16	1	2	0	0	4	23	27.00
1730 - 1745	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	0	2	66	1	4	1	0	5	79	83.30
Hourly Average	0.00	0.50	16.50	0.25	1.00	0.25	0.00	1.25	19.75	20.83
1745 - 1800	0	0	17	0	3	0	0	1	21	22.00
1800 - 1815	0	0	9	0	0	0	0	0	9	9.00
1/2 Hourly Total	0	0	26	0	3	0	0	1	30	31.00
1/2 Hourly Average	0.00	0.00	13.00	0.00	1.50	0.00	0.00	0.50	15.00	15.50
Session Total	0	2	143	1	10	2	0	10	168	177.80
Session Average	0.00	0.20	14.30	0.10	1.00	0.20	0.00	1.00	16.80	17.78

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.5: Right from B5295 Egremont Road to B5295 Main Street (East)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	20	0	6	0	0	0	26	26.00
0745 - 0800	0	0	34	0	7	0	0	0	41	41.00
0800 - 0815	0	0	42	1	4	0	0	3	50	53.00
0815 - 0830	0	0	82	1	4	0	0	2	89	91.00
Hourly Total	0	0	178	2	21	0	0	5	206	211.00
Hourly Average	0.00	0.00	44.50	0.50	5.25	0.00	0.00	1.25	51.50	52.75
0830 - 0845	0	0	83	1	4	0	0	0	88	88.00
0845 - 0900	0	0	52	0	5	0	0	2	59	61.00
0900 - 0915	0	0	18	0	4	0	0	0	22	22.00
0915 - 0930	0	0	16	0	2	0	0	1	19	20.00
Hourly Total	0	0	169	1	15	0	0	3	188	191.00
Hourly Average	0.00	0.00	42.25	0.25	3.75	0.00	0.00	0.75	47.00	47.75
Session Total	0	0	347	3	36	0	0	8	394	402.00
Session Average	0.00	0.00	43.38	0.38	4.50	0.00	0.00	1.00	49.25	50.25

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.5: Right from B5295 Egremont Road to B5295 Main Street (East)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	2	50	0	0	0	0	0	52	50.80
1600 - 1615	3	1	55	2	1	2	0	0	64	62.00
1615 - 1630	1	0	50	0	3	0	0	0	54	53.20
1630 - 1645	0	2	55	0	7	0	0	0	64	62.80
Hourly Total	4	5	210	2	11	2	0	0	234	228.80
Hourly Average	1.00	1.25	52.50	0.50	2.75	0.50	0.00	0.00	58.50	57.20
1645 - 1700	0	0	48	0	8	1	0	0	57	57.50
1700 - 1715	0	0	46	0	9	0	1	1	57	59.30
1715 - 1730	0	1	64	0	4	0	0	0	69	68.40
1730 - 1745	0	0	45	0	3	0	0	0	48	48.00
Hourly Total	0	1	203	0	24	1	1	1	231	233.20
Hourly Average	0.00	0.25	50.75	0.00	6.00	0.25	0.25	0.25	57.75	58.30
1745 - 1800	0	0	47	0	3	0	0	0	50	50.00
1800 - 1815	0	0	31	0	3	0	0	0	34	34.00
1/2 Hourly Total	0	0	78	0	6	0	0	0	84	84.00
1/2 Hourly Average	0.00	0.00	39.00	0.00	3.00	0.00	0.00	0.00	42.00	42.00
Session Total	4	6	491	2	41	3	1	1	549	546.00
Session Average	0.40	0.60	49.10	0.20	4.10	0.30	0.10	0.10	54.90	54.60

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.7: Left from B5295 Main Street (North) to B5295 Main Street (East)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	18	0	6	1	1	0	26	27.80
0745 - 0800	0	0	24	0	3	1	2	0	30	33.10
0800 - 0815	0	0	29	0	7	0	2	0	38	40.60
0815 - 0830	0	0	52	0	6	3	0	0	61	62.50
Hourly Total	0	0	123	0	22	5	5	0	155	164.00
Hourly Average	0.00	0.00	30.75	0.00	5.50	1.25	1.25	0.00	38.75	41.00
0830 - 0845	0	0	37	0	5	0	0	1	43	44.00
0845 - 0900	0	0	49	0	7	0	1	1	58	60.30
0900 - 0915	1	0	31	0	6	1	3	0	42	45.60
0915 - 0930	0	0	33	0	6	2	1	1	43	46.30
Hourly Total	1	0	150	0	24	3	5	3	186	196.20
Hourly Average	0.25	0.00	37.50	0.00	6.00	0.75	1.25	0.75	46.50	49.05
Session Total	1	0	273	0	46	8	10	3	341	360.20
Session Average	0.13	0.00	34.13	0.00	5.75	1.00	1.25	0.38	42.63	45.03

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.7: Left from B5295 Main Street (North) to B5295 Main Street (East)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	54	0	4	0	0	0	59	58.40
1600 - 1615	0	0	59	0	3	0	1	1	64	66.30
1615 - 1630	0	0	64	0	1	1	0	2	68	70.50
1630 - 1645	0	0	59	0	4	0	0	2	65	67.00
Hourly Total	0	1	236	0	12	1	1	5	256	262.20
Hourly Average	0.00	0.25	59.00	0.00	3.00	0.25	0.25	1.25	64.00	65.55
1645 - 1700	0	0	58	0	3	0	0	0	61	61.00
1700 - 1715	0	2	63	1	1	1	0	0	68	67.30
1715 - 1730	0	0	74	0	3	0	0	0	77	77.00
1730 - 1745	0	0	73	0	2	0	0	0	75	75.00
Hourly Total	0	2	268	1	9	1	0	0	281	280.30
Hourly Average	0.00	0.50	67.00	0.25	2.25	0.25	0.00	0.00	70.25	70.08
1745 - 1800	0	1	59	0	3	0	1	0	64	64.70
1800 - 1815	0	0	65	0	0	0	0	1	66	67.00
1/2 Hourly Total	0	1	124	0	3	0	1	1	130	131.70
1/2 Hourly Average	0.00	0.50	62.00	0.00	1.50	0.00	0.50	0.50	65.00	65.85
Session Total	0	4	628	1	24	2	2	6	667	674.20
Session Average	0.00	0.40	62.80	0.10	2.40	0.20	0.20	0.60	66.70	67.42

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14
B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long
lat 54.536189° lon -3.568600°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.8: Southbound from B5295 Main Street (North) to B5295 Egremont Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	2	0	1	0	0	0	3	3.00
0745 - 0800	0	0	5	0	0	0	0	1	6	7.00
0800 - 0815	0	0	8	0	1	0	0	0	9	9.00
0815 - 0830	0	0	4	1	0	0	0	1	6	7.00
Hourly Total	0	0	19	1	2	0	0	2	24	26.00
Hourly Average	0.00	0.00	4.75	0.25	0.50	0.00	0.00	0.50	6.00	6.50
0830 - 0845	0	0	5	0	1	0	0	0	6	6.00
0845 - 0900	0	0	6	1	1	0	0	1	9	10.00
0900 - 0915	0	0	14	0	0	0	0	0	14	14.00
0915 - 0930	0	0	16	0	4	0	0	2	22	24.00
Hourly Total	0	0	41	1	6	0	0	3	51	54.00
Hourly Average	0.00	0.00	10.25	0.25	1.50	0.00	0.00	0.75	12.75	13.50
Session Total	0	0	60	2	8	0	0	5	75	80.00
Session Average	0.00	0.00	7.50	0.25	1.00	0.00	0.00	0.63	9.38	10.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.8: Southbound from B5295 Main Street (North) to B5295 Egremont Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	5	1	3	0	0	1	10	11.00
1600 - 1615	0	0	13	1	0	0	0	1	15	16.00
1615 - 1630	0	0	17	1	0	0	0	2	20	22.00
1630 - 1645	0	0	19	0	1	0	0	1	21	22.00
Hourly Total	0	0	54	3	4	0	0	5	66	71.00
Hourly Average	0.00	0.00	13.50	0.75	1.00	0.00	0.00	1.25	16.50	17.75
1645 - 1700	0	1	20	0	6	1	0	0	28	27.90
1700 - 1715	0	0	17	0	1	0	0	1	19	20.00
1715 - 1730	0	0	11	1	2	0	0	0	14	14.00
1730 - 1745	0	0	26	1	1	0	0	1	29	30.00
Hourly Total	0	1	74	2	10	1	0	2	90	91.90
Hourly Average	0.00	0.25	18.50	0.50	2.50	0.25	0.00	0.50	22.50	22.98
1745 - 1800	0	0	24	0	2	0	0	2	28	30.00
1800 - 1815	0	1	22	1	1	0	0	0	25	24.40
1/2 Hourly Total	0	1	46	1	3	0	0	2	53	54.40
1/2 Hourly Average	0.00	0.50	23.00	0.50	1.50	0.00	0.00	1.00	26.50	27.20
Session Total	0	2	174	6	17	1	0	9	209	217.30
Session Average	0.00	0.20	17.40	0.60	1.70	0.10	0.00	0.90	20.90	21.73

Whitehaven, Cumbria
Classified Junction Count

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 7.9: U-Turn from B5295 Main Street (North) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
0900 - 0915	0	0	1	0	0	0	0	0	1	1.00
0915 - 0930	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	1	0	1	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.25	0.00	0.25	0.00	0.00	0.00	0.50	0.50
Session Total	0	0	1	0	1	0	0	0	2	2.00
Session Average	0.00	0.00	0.13	0.00	0.13	0.00	0.00	0.00	0.25	0.25

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 7.9: U-Turn from B5295 Main Street (North) to B5295 Main Street (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	1	0	0	0	0	1	1.00
Hourly Total	0	0	0	1	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.25
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	1	0	0	0	0	1	1.00
Session Average	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.10	0.10

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 8.1: Left from Homewood Road to A595 Egremont Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	37	0	3	0	0	4	44	48.00
0745 - 0800	0	0	45	0	7	0	0	3	55	58.00
0800 - 0815	0	0	38	1	10	0	0	1	50	51.00
0815 - 0830	0	0	36	0	6	1	0	0	43	43.50
Hourly Total	0	0	156	1	26	1	0	8	192	200.50
Hourly Average	0.00	0.00	39.00	0.25	6.50	0.25	0.00	2.00	48.00	50.13
0830 - 0845	0	0	45	0	4	0	2	3	54	59.60
0845 - 0900	0	0	47	2	7	1	0	0	57	57.50
0900 - 0915	0	0	30	1	6	0	0	1	38	39.00
0915 - 0930	0	0	21	0	5	0	0	0	26	26.00
Hourly Total	0	0	143	3	22	1	2	4	175	182.10
Hourly Average	0.00	0.00	35.75	0.75	5.50	0.25	0.50	1.00	43.75	45.53
Session Total	0	0	299	4	48	2	2	12	367	382.60
Session Average	0.00	0.00	37.38	0.50	6.00	0.25	0.25	1.50	45.88	47.83

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 8.1: Left from Homewood Road to A595 Egremont Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	37	1	3	0	0	0	41	41.00
1600 - 1615	0	0	57	1	6	2	0	2	68	71.00
1615 - 1630	3	1	56	0	4	0	0	1	65	63.00
1630 - 1645	0	0	65	0	4	0	0	1	70	71.00
Hourly Total	3	1	215	2	17	2	0	4	244	246.00
Hourly Average	0.75	0.25	53.75	0.50	4.25	0.50	0.00	1.00	61.00	61.50
1645 - 1700	0	1	71	0	10	0	0	0	82	81.40
1700 - 1715	0	1	49	0	5	2	0	1	58	59.40
1715 - 1730	0	0	33	0	6	0	0	0	39	39.00
1730 - 1745	0	0	49	0	3	0	0	1	53	54.00
Hourly Total	0	2	202	0	24	2	0	2	232	233.80
Hourly Average	0.00	0.50	50.50	0.00	6.00	0.50	0.00	0.50	58.00	58.45
1745 - 1800	0	0	44	0	1	0	0	0	45	45.00
1800 - 1815	0	0	49	0	2	0	0	1	52	53.00
1/2 Hourly Total	0	0	93	0	3	0	0	1	97	98.00
1/2 Hourly Average	0.00	0.00	46.50	0.00	1.50	0.00	0.00	0.50	48.50	49.00
Session Total	3	3	510	2	44	4	0	7	573	577.80
Session Average	0.30	0.30	51.00	0.20	4.40	0.40	0.00	0.70	57.30	57.78

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 8.2: Westbound from Homewood Road to A595 Hensingham Bypass								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	15	0	0	1	0	0	16	16.50
0745 - 0800	0	0	21	1	1	0	0	0	23	23.00
0800 - 0815	0	0	17	0	0	1	0	0	18	18.50
0815 - 0830	0	0	14	0	1	1	0	0	16	16.50
Hourly Total	0	0	67	1	2	3	0	0	73	74.50
Hourly Average	0.00	0.00	16.75	0.25	0.50	0.75	0.00	0.00	18.25	18.63
0830 - 0845	0	0	15	1	1	1	0	1	19	20.50
0845 - 0900	0	0	20	0	1	0	0	0	21	21.00
0900 - 0915	0	0	14	0	1	1	0	0	16	16.50
0915 - 0930	0	0	21	1	2	1	0	1	26	27.50
Hourly Total	0	0	70	2	5	3	0	2	82	85.50
Hourly Average	0.00	0.00	17.50	0.50	1.25	0.75	0.00	0.50	20.50	21.38
Session Total	0	0	137	3	7	6	0	2	155	160.00
Session Average	0.00	0.00	17.13	0.38	0.88	0.75	0.00	0.25	19.38	20.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 8.2: Westbound from Homewood Road to A595 Hensingham Bypass								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	46	0	2	0	0	0	48	48.00
1600 - 1615	1	0	48	0	3	1	0	1	54	54.70
1615 - 1630	0	0	38	0	4	0	0	1	43	44.00
1630 - 1645	0	0	37	0	2	0	0	0	39	39.00
Hourly Total	1	0	169	0	11	1	0	2	184	185.70
Hourly Average	0.25	0.00	42.25	0.00	2.75	0.25	0.00	0.50	46.00	46.43
1645 - 1700	0	0	31	0	0	0	0	0	31	31.00
1700 - 1715	0	0	40	0	2	0	0	0	42	42.00
1715 - 1730	0	0	29	0	2	2	0	0	33	34.00
1730 - 1745	0	0	27	0	0	0	0	0	27	27.00
Hourly Total	0	0	127	0	4	2	0	0	133	134.00
Hourly Average	0.00	0.00	31.75	0.00	1.00	0.50	0.00	0.00	33.25	33.50
1745 - 1800	0	0	28	0	1	1	0	0	30	30.50
1800 - 1815	0	0	30	0	1	0	0	0	31	31.00
1/2 Hourly Total	0	0	58	0	2	1	0	0	61	61.50
1/2 Hourly Average	0.00	0.00	29.00	0.00	1.00	0.50	0.00	0.00	30.50	30.75
Session Total	1	0	354	0	17	4	0	2	378	381.20
Session Average	0.10	0.00	35.40	0.00	1.70	0.40	0.00	0.20	37.80	38.12

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.3: Right from Homewood Road to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	1	0	0	0	0	1	1.00
0800 - 0815	0	0	2	0	0	0	0	0	2	2.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	3	1	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	0.75	0.25	0.00	0.00	0.00	0.00	1.00	1.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	3	0	0	0	0	0	3	3.00
0900 - 0915	0	0	0	0	0	0	0	1	1	2.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	0	0	1	4	5.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.25	1.00	1.25
Session Total	0	0	6	1	0	0	0	1	8	9.00
Session Average	0.00	0.00	0.75	0.13	0.00	0.00	0.00	0.13	1.00	1.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.3: Right from Homewood Road to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	1	0	0	0	0	0	1	1.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	1	0	0	1	0	1	3	4.50
1630 - 1645	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	2	0	1	1	0	1	5	6.50
Hourly Average	0.00	0.00	0.50	0.00	0.25	0.25	0.00	0.25	1.25	1.63
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	4	0	0	0	0	0	4	4.00
1715 - 1730	0	0	0	0	0	0	0	1	1	2.00
1730 - 1745	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	5	0	0	0	0	1	6	7.00
Hourly Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.25	1.50	1.75
1745 - 1800	0	0	3	0	0	0	0	0	3	3.00
1800 - 1815	0	0	1	0	0	0	0	0	1	1.00
1/2 Hourly Total	0	0	4	0	0	0	0	0	4	4.00
1/2 Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
Session Total	0	0	11	0	1	1	0	2	15	17.50
Session Average	0.00	0.00	1.10	0.00	0.10	0.10	0.00	0.20	1.50	1.75

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.5: Left from A595 Egremont Road to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	98	1	13	2	1	0	115	117.30
0745 - 0800	0	0	148	0	16	2	0	2	168	171.00
0800 - 0815	0	1	124	0	13	2	0	1	141	142.40
0815 - 0830	0	0	140	0	10	4	0	4	158	164.00
Hourly Total	0	1	510	1	52	10	1	7	582	594.70
Hourly Average	0.00	0.25	127.50	0.25	13.00	2.50	0.25	1.75	145.50	148.68
0830 - 0845	0	0	145	2	15	2	0	1	165	167.00
0845 - 0900	0	1	110	0	8	2	2	2	125	130.00
0900 - 0915	0	0	126	0	18	8	3	0	155	162.90
0915 - 0930	0	0	106	2	10	0	3	0	121	124.90
Hourly Total	0	1	487	4	51	12	8	3	566	584.80
Hourly Average	0.00	0.25	121.75	1.00	12.75	3.00	2.00	0.75	141.50	146.20
Session Total	0	2	997	5	103	22	9	10	1148	1179.50
Session Average	0.00	0.25	124.63	0.63	12.88	2.75	1.13	1.25	143.50	147.44

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.5: Left from A595 Egremont Road to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	4	145	2	23	5	2	2	183	187.70
1600 - 1615	6	6	153	0	15	3	2	2	187	184.70
1615 - 1630	5	5	142	0	19	3	1	1	176	172.80
1630 - 1645	3	1	154	0	18	3	2	1	182	184.10
Hourly Total	14	16	594	2	75	14	7	6	728	729.30
Hourly Average	3.50	4.00	148.50	0.50	18.75	3.50	1.75	1.50	182.00	182.33
1645 - 1700	0	2	172	1	14	3	0	0	192	192.30
1700 - 1715	3	0	186	0	16	2	1	1	209	209.90
1715 - 1730	0	0	189	1	13	0	0	1	204	205.00
1730 - 1745	2	1	164	1	13	1	1	1	184	184.60
Hourly Total	5	3	711	3	56	6	2	3	789	791.80
Hourly Average	1.25	0.75	177.75	0.75	14.00	1.50	0.50	0.75	197.25	197.95
1745 - 1800	0	2	152	1	12	0	0	1	168	167.80
1800 - 1815	0	0	148	0	13	0	0	1	162	163.00
1/2 Hourly Total	0	2	300	1	25	0	0	2	330	330.80
1/2 Hourly Average	0.00	1.00	150.00	0.50	12.50	0.00	0.00	1.00	165.00	165.40
Session Total	19	21	1605	6	156	20	9	11	1847	1851.90
Session Average	1.90	2.10	160.50	0.60	15.60	2.00	0.90	1.10	184.70	185.19

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.6: Northbound from A595 Egremont Road to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	21	0	7	0	0	0	28	28.00
0745 - 0800	0	1	28	1	7	0	0	1	38	38.40
0800 - 0815	0	0	43	0	6	0	0	1	50	51.00
0815 - 0830	0	0	66	0	4	0	0	2	72	74.00
Hourly Total	0	1	158	1	24	0	0	4	188	191.40
Hourly Average	0.00	0.25	39.50	0.25	6.00	0.00	0.00	1.00	47.00	47.85
0830 - 0845	0	0	70	1	3	0	0	0	74	74.00
0845 - 0900	0	0	45	1	3	0	0	3	52	55.00
0900 - 0915	0	0	28	0	1	0	0	0	29	29.00
0915 - 0930	0	0	11	0	1	0	0	1	13	14.00
Hourly Total	0	0	154	2	8	0	0	4	168	172.00
Hourly Average	0.00	0.00	38.50	0.50	2.00	0.00	0.00	1.00	42.00	43.00
Session Total	0	1	312	3	32	0	0	8	356	363.40
Session Average	0.00	0.13	39.00	0.38	4.00	0.00	0.00	1.00	44.50	45.43

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.6: Northbound from A595 Egremont Road to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	1	47	0	1	0	0	0	50	48.60
1600 - 1615	1	1	63	2	2	1	0	0	70	69.10
1615 - 1630	1	1	63	0	2	1	0	1	69	69.10
1630 - 1645	1	2	49	0	4	0	0	1	57	56.00
Hourly Total	4	5	222	2	9	2	0	2	246	242.80
Hourly Average	1.00	1.25	55.50	0.50	2.25	0.50	0.00	0.50	61.50	60.70
1645 - 1700	0	0	47	0	7	1	0	0	55	55.50
1700 - 1715	0	2	52	1	7	1	1	0	64	64.60
1715 - 1730	0	1	63	0	6	0	0	2	72	73.40
1730 - 1745	0	0	53	0	3	0	0	0	56	56.00
Hourly Total	0	3	215	1	23	2	1	2	247	249.50
Hourly Average	0.00	0.75	53.75	0.25	5.75	0.50	0.25	0.50	61.75	62.38
1745 - 1800	0	0	51	0	3	0	0	0	54	54.00
1800 - 1815	0	0	35	0	4	0	0	0	39	39.00
1/2 Hourly Total	0	0	86	0	7	0	0	0	93	93.00
1/2 Hourly Average	0.00	0.00	43.00	0.00	3.50	0.00	0.00	0.00	46.50	46.50
Session Total	4	8	523	3	39	4	1	4	586	585.30
Session Average	0.40	0.80	52.30	0.30	3.90	0.40	0.10	0.40	58.60	58.53

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.7: Right from A595 Egremont Road to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	25	0	4	1	0	0	30	30.50
0745 - 0800	0	0	28	0	7	0	0	0	35	35.00
0800 - 0815	0	0	15	0	2	0	0	0	17	17.00
0815 - 0830	0	0	24	0	2	0	0	1	27	28.00
Hourly Total	0	0	92	0	15	1	0	1	109	110.50
Hourly Average	0.00	0.00	23.00	0.00	3.75	0.25	0.00	0.25	27.25	27.63
0830 - 0845	0	0	34	1	5	0	0	1	41	42.00
0845 - 0900	0	0	38	0	2	0	0	1	41	42.00
0900 - 0915	0	0	37	0	2	0	0	1	40	41.00
0915 - 0930	0	0	19	1	3	0	0	0	23	23.00
Hourly Total	0	0	128	2	12	0	0	3	145	148.00
Hourly Average	0.00	0.00	32.00	0.50	3.00	0.00	0.00	0.75	36.25	37.00
Session Total	0	0	220	2	27	1	0	4	254	258.50
Session Average	0.00	0.00	27.50	0.25	3.38	0.13	0.00	0.50	31.75	32.31

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.7: Right from A595 Egremont Road to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	31	0	5	0	0	2	38	40.00
1600 - 1615	0	0	32	0	3	0	0	0	35	35.00
1615 - 1630	0	0	33	0	4	0	0	1	38	39.00
1630 - 1645	0	0	26	0	1	0	0	0	27	27.00
Hourly Total	0	0	122	0	13	0	0	3	138	141.00
Hourly Average	0.00	0.00	30.50	0.00	3.25	0.00	0.00	0.75	34.50	35.25
1645 - 1700	0	1	37	0	4	1	0	0	43	42.90
1700 - 1715	0	0	25	0	2	0	0	0	27	27.00
1715 - 1730	0	0	30	0	2	0	0	1	33	34.00
1730 - 1745	0	0	33	0	3	0	0	1	37	38.00
Hourly Total	0	1	125	0	11	1	0	2	140	141.90
Hourly Average	0.00	0.25	31.25	0.00	2.75	0.25	0.00	0.50	35.00	35.48
1745 - 1800	0	0	44	0	2	0	0	0	46	46.00
1800 - 1815	0	0	39	0	3	0	0	1	43	44.00
1/2 Hourly Total	0	0	83	0	5	0	0	1	89	90.00
1/2 Hourly Average	0.00	0.00	41.50	0.00	2.50	0.00	0.00	0.50	44.50	45.00
Session Total	0	1	330	0	29	1	0	6	367	372.90
Session Average	0.00	0.10	33.00	0.00	2.90	0.10	0.00	0.60	36.70	37.29

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.8: U-Turn from A595 Egremont Road to A595 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	4	0	1	0	0	0	5	5.00
0745 - 0800	0	0	3	0	1	0	0	0	4	4.00
0800 - 0815	0	0	4	0	0	0	0	0	4	4.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	12	0	2	0	0	0	14	14.00
Hourly Average	0.00	0.00	3.00	0.00	0.50	0.00	0.00	0.00	3.50	3.50
0830 - 0845	0	0	4	0	0	0	0	0	4	4.00
0845 - 0900	0	0	6	0	0	0	0	0	6	6.00
0900 - 0915	0	0	5	0	0	0	0	0	5	5.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	15	0	0	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.75	0.00	0.00	0.00	0.00	0.00	3.75	3.75
Session Total	0	0	27	0	2	0	0	0	29	29.00
Session Average	0.00	0.00	3.38	0.00	0.25	0.00	0.00	0.00	3.63	3.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.8: U-Turn from A595 Egremont Road to A595 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	5	0	0	0	0	1	6	7.00
1600 - 1615	0	2	5	0	0	0	0	0	7	5.80
1615 - 1630	0	0	5	0	0	0	0	0	5	5.00
1630 - 1645	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	2	18	0	0	0	0	1	21	20.80
Hourly Average	0.00	0.50	4.50	0.00	0.00	0.00	0.00	0.25	5.25	5.20
1645 - 1700	0	0	1	0	0	1	0	0	2	2.50
1700 - 1715	0	0	4	0	0	0	0	0	4	4.00
1715 - 1730	0	0	2	0	1	0	0	0	3	3.00
1730 - 1745	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	9	0	1	1	0	0	11	11.50
Hourly Average	0.00	0.00	2.25	0.00	0.25	0.25	0.00	0.00	2.75	2.88
1745 - 1800	0	0	1	0	1	0	0	0	2	2.00
1800 - 1815	0	0	2	0	0	0	0	0	2	2.00
1/2 Hourly Total	0	0	3	0	1	0	0	0	4	4.00
1/2 Hourly Average	0.00	0.00	1.50	0.00	0.50	0.00	0.00	0.00	2.00	2.00
Session Total	0	2	30	0	2	1	0	1	36	36.30
Session Average	0.00	0.20	3.00	0.00	0.20	0.10	0.00	0.10	3.60	3.63

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.9: Left from A595 Hensingham Bypass to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	1	1	2.00
0815 - 0830	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	1	2	3.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.25	0.50	0.75
0830 - 0845	0	0	1	0	0	0	0	0	1	1.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
0900 - 0915	0	0	1	0	0	0	0	0	1	1.00
0915 - 0930	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
Session Total	0	0	5	0	0	0	0	1	6	7.00
Session Average	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.13	0.75	0.88

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.9: Left from A595 Hensingham Bypass to B5295 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	1	0	1	0	0	0	2	2.00
1600 - 1615	0	0	0	0	0	0	0	0	0	0.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	2	0	1	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.50	0.00	0.25	0.00	0.00	0.00	0.75	0.75
1645 - 1700	0	0	2	0	0	0	0	0	2	2.00
1700 - 1715	0	0	1	0	0	0	0	1	2	3.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	4	0	1	0	0	1	6	7.00
Hourly Average	0.00	0.00	1.00	0.00	0.25	0.00	0.00	0.25	1.50	1.75
1745 - 1800	0	0	1	0	0	0	0	0	1	1.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	1	0	0	0	0	0	1	1.00
1/2 Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
Session Total	0	0	7	0	2	0	0	1	10	11.00
Session Average	0.00	0.00	0.70	0.00	0.20	0.00	0.00	0.10	1.00	1.10

Whitehaven, Cumbria
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Site 8 of 14
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B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.10: Eastbound from A595 Hensingham Bypass to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	15	0	1	0	0	0	17	16.40
0745 - 0800	0	0	23	1	2	2	0	0	28	29.00
0800 - 0815	0	0	15	0	0	0	0	0	15	15.00
0815 - 0830	0	0	31	0	4	0	0	0	35	35.00
Hourly Total	0	1	84	1	7	2	0	0	95	95.40
Hourly Average	0.00	0.25	21.00	0.25	1.75	0.50	0.00	0.00	23.75	23.85
0830 - 0845	0	0	19	0	1	1	1	0	22	23.80
0845 - 0900	0	0	35	0	1	1	0	0	37	37.50
0900 - 0915	0	0	23	1	3	0	0	0	27	27.00
0915 - 0930	0	0	21	2	3	1	0	0	27	27.50
Hourly Total	0	0	98	3	8	3	1	0	113	115.80
Hourly Average	0.00	0.00	24.50	0.75	2.00	0.75	0.25	0.00	28.25	28.95
Session Total	0	1	182	4	15	5	1	0	208	211.20
Session Average	0.00	0.13	22.75	0.50	1.88	0.63	0.13	0.00	26.00	26.40

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.10: Eastbound from A595 Hensingham Bypass to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	16	0	1	0	0	0	17	17.00
1600 - 1615	0	1	14	0	0	1	0	0	16	15.90
1615 - 1630	0	0	10	0	0	0	0	0	10	10.00
1630 - 1645	0	0	13	0	1	0	0	0	14	14.00
Hourly Total	0	1	53	0	2	1	0	0	57	56.90
Hourly Average	0.00	0.25	13.25	0.00	0.50	0.25	0.00	0.00	14.25	14.23
1645 - 1700	1	0	8	0	3	0	0	0	12	11.20
1700 - 1715	0	0	17	0	1	0	0	0	18	18.00
1715 - 1730	0	2	10	0	0	0	0	0	12	10.80
1730 - 1745	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	1	2	44	0	4	0	0	0	51	49.00
Hourly Average	0.25	0.50	11.00	0.00	1.00	0.00	0.00	0.00	12.75	12.25
1745 - 1800	0	0	14	0	0	0	0	0	14	14.00
1800 - 1815	0	0	16	0	0	2	0	0	18	19.00
1/2 Hourly Total	0	0	30	0	0	2	0	0	32	33.00
1/2 Hourly Average	0.00	0.00	15.00	0.00	0.00	1.00	0.00	0.00	16.00	16.50
Session Total	1	3	127	0	6	3	0	0	140	138.90
Session Average	0.10	0.30	12.70	0.00	0.60	0.30	0.00	0.00	14.00	13.89

Whitehaven, Cumbria
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Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.11: Right from A595 Hensingham Bypass to A595 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	4	184	0	21	6	5	0	221	227.30
0745 - 0800	0	0	166	0	20	2	6	0	194	202.80
0800 - 0815	0	0	138	0	20	5	1	0	164	167.80
0815 - 0830	0	3	125	0	26	4	3	1	162	167.10
Hourly Total	1	7	613	0	87	17	15	1	741	765.00
Hourly Average	0.25	1.75	153.25	0.00	21.75	4.25	3.75	0.25	185.25	191.25
0830 - 0845	0	1	98	0	28	7	2	2	138	145.50
0845 - 0900	0	0	116	0	26	4	8	1	155	168.40
0900 - 0915	0	0	104	0	20	7	2	0	133	139.10
0915 - 0930	0	0	96	0	26	9	4	1	136	146.70
Hourly Total	0	1	414	0	100	27	16	4	562	599.70
Hourly Average	0.00	0.25	103.50	0.00	25.00	6.75	4.00	1.00	140.50	149.93
Session Total	1	8	1027	0	187	44	31	5	1303	1364.70
Session Average	0.13	1.00	128.38	0.00	23.38	5.50	3.88	0.63	162.88	170.59

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.11: Right from A595 Hensingham Bypass to A595 Egremont Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	101	0	12	2	0	1	116	118.00
1600 - 1615	0	1	101	1	11	1	2	0	117	119.50
1615 - 1630	0	3	143	2	14	1	0	2	165	165.70
1630 - 1645	0	1	142	1	16	4	1	1	166	169.70
Hourly Total	0	5	487	4	53	8	3	4	564	572.90
Hourly Average	0.00	1.25	121.75	1.00	13.25	2.00	0.75	1.00	141.00	143.23
1645 - 1700	0	1	148	0	14	1	0	0	164	163.90
1700 - 1715	0	0	166	1	16	0	0	0	183	183.00
1715 - 1730	0	1	151	0	8	0	0	0	160	159.40
1730 - 1745	0	1	141	0	7	2	2	1	154	158.00
Hourly Total	0	3	606	1	45	3	2	1	661	664.30
Hourly Average	0.00	0.75	151.50	0.25	11.25	0.75	0.50	0.25	165.25	166.08
1745 - 1800	0	0	123	0	8	1	0	0	132	132.50
1800 - 1815	0	0	103	0	6	0	0	0	109	109.00
1/2 Hourly Total	0	0	226	0	14	1	0	0	241	241.50
1/2 Hourly Average	0.00	0.00	113.00	0.00	7.00	0.50	0.00	0.00	120.50	120.75
Session Total	0	8	1319	5	112	12	5	5	1466	1478.70
Session Average	0.00	0.80	131.90	0.50	11.20	1.20	0.50	0.50	146.60	147.87

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

[illegible]

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.13: Left from B5295 Egremont Road to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	1	0	0	0	0	0	1	1.00
0800 - 0815	0	0	2	0	0	0	0	0	2	2.00
0815 - 0830	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	7	0	0	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	1.75	1.75
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	1	0	0	0	0	0	1	1.00
0900 - 0915	0	0	6	0	0	0	0	0	6	6.00
0915 - 0930	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	9	0	0	0	0	0	9	9.00
Hourly Average	0.00	0.00	2.25	0.00	0.00	0.00	0.00	0.00	2.25	2.25
Session Total	0	0	16	0	0	0	0	0	16	16.00
Session Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.13: Left from B5295 Egremont Road to Homewood Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	1	0	0	0	0	0	1	1.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	2	0	0	0	0	1	3	4.00
Hourly Total	0	0	4	0	0	0	0	1	5	6.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.25	1.25	1.50
1645 - 1700	1	0	2	0	1	0	0	0	4	3.20
1700 - 1715	0	0	3	0	0	0	0	0	3	3.00
1715 - 1730	0	0	1	0	0	0	0	0	1	1.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	1	0	6	0	1	0	0	0	8	7.20
Hourly Average	0.25	0.00	1.50	0.00	0.25	0.00	0.00	0.00	2.00	1.80
1745 - 1800	0	0	1	0	1	0	0	1	3	4.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	1	0	1	0	0	1	3	4.00
1/2 Hourly Average	0.00	0.00	0.50	0.00	0.50	0.00	0.00	0.50	1.50	2.00
Session Total	1	0	11	0	2	0	0	2	16	17.20
Session Average	0.10	0.00	1.10	0.00	0.20	0.00	0.00	0.20	1.60	1.72

Whitehaven, Cumbria
Classified Junction Count

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 8.14: Southbound from B5295 Egremont Road to A595 Egremont Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	2	40	0	2	5	1	0	50	52.60
0745 - 0800	0	0	48	2	2	2	0	0	54	55.00
0800 - 0815	0	1	38	0	4	0	0	0	43	42.40
0815 - 0830	0	0	41	1	10	0	0	0	52	52.00
Hourly Total	0	3	167	3	18	7	1	0	199	202.00
Hourly Average	0.00	0.75	41.75	0.75	4.50	1.75	0.25	0.00	49.75	50.50
0830 - 0845	0	0	47	0	5	2	0	1	55	57.00
0845 - 0900	0	0	49	1	5	0	0	1	56	57.00
0900 - 0915	0	0	32	0	3	0	0	0	35	35.00
0915 - 0930	0	0	11	0	1	0	0	1	13	14.00
Hourly Total	0	0	139	1	14	2	0	3	159	163.00
Hourly Average	0.00	0.00	34.75	0.25	3.50	0.50	0.00	0.75	39.75	40.75
Session Total	0	3	306	4	32	9	1	3	358	365.00
Session Average	0.00	0.38	38.25	0.50	4.00	1.13	0.13	0.38	44.75	45.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 8.14: Southbound from B5295 Egremont Road to A595 Egremont Roac								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	0	19	1	1	0	0	0	22	21.20
1600 - 1615	0	0	34	1	4	1	0	0	40	40.50
1615 - 1630	0	0	32	1	2	0	0	1	36	37.00
1630 - 1645	0	0	38	0	5	0	0	0	43	43.00
Hourly Total	1	0	123	3	12	1	0	1	141	141.70
Hourly Average	0.25	0.00	30.75	0.75	3.00	0.25	0.00	0.25	35.25	35.43
1645 - 1700	0	1	37	0	8	0	0	0	46	45.40
1700 - 1715	0	0	49	0	4	0	0	0	53	53.00
1715 - 1730	0	0	27	1	1	1	0	0	30	30.50
1730 - 1745	0	0	22	1	3	0	0	0	26	26.00
Hourly Total	0	1	135	2	16	1	0	0	155	154.90
Hourly Average	0.00	0.25	33.75	0.50	4.00	0.25	0.00	0.00	38.75	38.73
1745 - 1800	0	0	22	0	0	0	0	0	22	22.00
1800 - 1815	0	1	33	1	0	0	0	0	35	34.40
1/2 Hourly Total	0	1	55	1	0	0	0	0	57	56.40
1/2 Hourly Average	0.00	0.50	27.50	0.50	0.00	0.00	0.00	0.00	28.50	28.20
Session Total	1	2	313	6	28	2	0	1	353	353.00
Session Average	0.10	0.20	31.30	0.60	2.80	0.20	0.00	0.10	35.30	35.30

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

[illegible]

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

[illegible]

Whitehaven, Cumbria
Classified Junction Count

Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long

lat 54.538145° lon -3.572216°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 9.1: Left from B5295 Ribton Moorside to A595 Hensingham Bypass (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	1	0	0	0	0	0	1	1.00
0800 - 0815	0	1	1	0	1	0	0	0	3	2.40
0815 - 0830	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	1	5	0	1	0	0	0	7	6.40
Hourly Average	0.00	0.25	1.25	0.00	0.25	0.00	0.00	0.00	1.75	1.60
0830 - 0845	0	0	2	0	1	0	0	0	3	3.00
0845 - 0900	0	0	2	0	0	0	0	0	2	2.00
0900 - 0915	0	0	0	0	0	1	0	0	1	1.50
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	4	0	1	1	0	0	6	6.50
Hourly Average	0.00	0.00	1.00	0.00	0.25	0.25	0.00	0.00	1.50	1.63
Session Total	0	1	9	0	2	1	0	0	13	12.90
Session Average	0.00	0.13	1.13	0.00	0.25	0.13	0.00	0.00	1.63	1.61

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 9.1: Left from B5295 Ribton Moorside to A595 Hensingham Bypass (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	1	0	0	0	0	0	1	1.00
1600 - 1615	0	0	1	0	0	0	0	0	1	1.00
1615 - 1630	0	0	1	0	0	1	0	0	2	2.50
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	1	0	0	4	4.50
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.25	0.00	0.00	1.00	1.13
1645 - 1700	0	0	0	0	1	0	0	0	1	1.00
1700 - 1715	0	0	2	0	0	0	0	0	2	2.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	2	0	1	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.50	0.00	0.25	0.00	0.00	0.00	0.75	0.75
1745 - 1800	0	0	1	0	0	0	0	0	1	1.00
1800 - 1815	0	0	2	0	0	0	0	0	2	2.00
1/2 Hourly Total	0	0	3	0	0	0	0	0	3	3.00
1/2 Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
Session Total	0	0	8	0	1	1	0	0	10	10.50
Session Average	0.00	0.00	0.80	0.00	0.10	0.10	0.00	0.00	1.00	1.05

Whitehaven, Cumbria
Classified Junction Count

Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long

lat 54.538145° lon -3.572216°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 9.2: Right from B5295 Ribton Moorside to A595 Hensingham Bypass (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	57	0	11	1	0	0	69	69.50
0745 - 0800	1	2	55	0	11	3	0	4	76	79.50
0800 - 0815	0	1	70	0	9	1	1	1	83	85.20
0815 - 0830	0	0	85	0	7	1	1	2	96	99.80
Hourly Total	1	3	267	0	38	6	2	7	324	334.00
Hourly Average	0.25	0.75	66.75	0.00	9.50	1.50	0.50	1.75	81.00	83.50
0830 - 0845	0	0	122	0	8	0	0	2	132	134.00
0845 - 0900	0	0	100	1	6	0	0	1	108	109.00
0900 - 0915	0	0	93	0	5	0	1	2	101	104.30
0915 - 0930	0	0	75	1	5	2	0	1	84	86.00
Hourly Total	0	0	390	2	24	2	1	6	425	433.30
Hourly Average	0.00	0.00	97.50	0.50	6.00	0.50	0.25	1.50	106.25	108.33
Session Total	1	3	657	2	62	8	3	13	749	767.30
Session Average	0.13	0.38	82.13	0.25	7.75	1.00	0.38	1.63	93.63	95.91

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 9.2: Right from B5295 Ribton Moorside to A595 Hensingham Bypass (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	64	0	4	0	1	1	70	72.30
1600 - 1615	0	0	81	1	5	1	0	2	90	92.50
1615 - 1630	0	0	67	0	6	0	0	2	75	77.00
1630 - 1645	0	1	81	1	4	1	0	1	89	89.90
Hourly Total	0	1	293	2	19	2	1	6	324	331.70
Hourly Average	0.00	0.25	73.25	0.50	4.75	0.50	0.25	1.50	81.00	82.93
1645 - 1700	0	0	108	0	4	0	3	1	116	120.90
1700 - 1715	0	2	79	0	5	0	0	0	86	84.80
1715 - 1730	1	0	85	1	6	2	0	4	99	103.20
1730 - 1745	0	2	81	0	6	1	1	1	92	93.60
Hourly Total	1	4	353	1	21	3	4	6	393	402.50
Hourly Average	0.25	1.00	88.25	0.25	5.25	0.75	1.00	1.50	98.25	100.63
1745 - 1800	1	0	89	0	12	0	1	1	104	105.50
1800 - 1815	0	0	63	0	4	0	0	0	67	67.00
1/2 Hourly Total	1	0	152	0	16	0	1	1	171	172.50
1/2 Hourly Average	0.50	0.00	76.00	0.00	8.00	0.00	0.50	0.50	85.50	86.25
Session Total	2	5	798	3	56	5	6	13	888	906.70
Session Average	0.20	0.50	79.80	0.30	5.60	0.50	0.60	1.30	88.80	90.67

Whitehaven, Cumbria
Classified Junction Count

Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long

lat 54.538145° lon -3.572216°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 9.3: Left from A595 Hensingham Bypass (South) to A595 Hensingham Bypass (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	109	0	14	3	1	0	128	130.20
0745 - 0800	0	0	167	1	17	2	0	2	189	192.00
0800 - 0815	0	0	142	1	11	3	0	2	159	162.50
0815 - 0830	0	0	156	0	12	5	0	3	176	181.50
Hourly Total	0	1	574	2	54	13	1	7	652	666.20
Hourly Average	0.00	0.25	143.50	0.50	13.50	3.25	0.25	1.75	163.00	166.55
0830 - 0845	0	0	165	3	16	3	1	2	190	194.80
0845 - 0900	0	1	128	0	10	2	2	2	145	150.00
0900 - 0915	0	0	142	0	19	7	4	1	173	182.70
0915 - 0930	0	0	121	3	10	3	1	1	139	142.80
Hourly Total	0	1	556	6	55	15	8	6	647	670.30
Hourly Average	0.00	0.25	139.00	1.50	13.75	3.75	2.00	1.50	161.75	167.58
Session Total	0	2	1130	8	109	28	9	13	1299	1336.50
Session Average	0.00	0.25	141.25	1.00	13.63	3.50	1.13	1.63	162.38	167.06

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 9.3: Left from A595 Hensingham Bypass (South) to A595 Hensingham Bypass (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	4	193	1	21	4	2	3	228	233.20
1600 - 1615	6	6	196	0	19	5	2	2	236	234.70
1615 - 1630	5	5	176	1	22	3	1	2	215	212.80
1630 - 1645	4	1	197	0	24	3	2	1	232	233.30
Hourly Total	15	16	762	2	86	15	7	8	911	914.00
Hourly Average	3.75	4.00	190.50	0.50	21.50	3.75	1.75	2.00	227.75	228.50
1645 - 1700	0	2	212	1	15	2	0	0	232	231.80
1700 - 1715	3	0	221	0	17	2	1	1	245	245.90
1715 - 1730	0	0	216	1	16	1	0	1	235	236.50
1730 - 1745	2	1	187	1	12	3	1	1	208	209.60
Hourly Total	5	3	836	3	60	8	2	3	920	923.80
Hourly Average	1.25	0.75	209.00	0.75	15.00	2.00	0.50	0.75	230.00	230.95
1745 - 1800	0	2	177	1	14	1	0	1	196	196.30
1800 - 1815	0	0	181	0	13	0	0	1	195	196.00
1/2 Hourly Total	0	2	358	1	27	1	0	2	391	392.30
1/2 Hourly Average	0.00	1.00	179.00	0.50	13.50	0.50	0.00	1.00	195.50	196.15
Session Total	20	21	1956	6	173	24	9	13	2222	2230.10
Session Average	2.00	2.10	195.60	0.60	17.30	2.40	0.90	1.30	222.20	223.01

Whitehaven, Cumbria
Classified Junction Count

Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long

lat 54.538145° lon -3.572216°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 9.5: Left from A595 Hensingham Bypass (North) to B5295 Ribton Moorside								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	20	0	6	1	1	0	28	29.80
0745 - 0800	0	0	28	0	3	0	2	1	34	37.60
0800 - 0815	0	0	37	0	10	1	2	0	50	53.10
0815 - 0830	0	0	51	1	5	3	0	1	61	63.50
Hourly Total	0	0	136	1	24	5	5	2	173	184.00
Hourly Average	0.00	0.00	34.00	0.25	6.00	1.25	1.25	0.50	43.25	46.00
0830 - 0845	0	0	45	0	6	0	0	1	52	53.00
0845 - 0900	0	0	54	1	7	1	1	2	66	69.80
0900 - 0915	1	0	47	0	7	0	3	0	58	61.10
0915 - 0930	0	0	47	0	10	2	1	3	63	68.30
Hourly Total	1	0	193	1	30	3	5	6	239	252.20
Hourly Average	0.25	0.00	48.25	0.25	7.50	0.75	1.25	1.50	59.75	63.05
Session Total	1	0	329	2	54	8	10	8	412	436.20
Session Average	0.13	0.00	41.13	0.25	6.75	1.00	1.25	1.00	51.50	54.53

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 9.5: Left from A595 Hensingham Bypass (North) to B5295 Ribton Moorside								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	62	0	5	0	0	2	70	71.40
1600 - 1615	0	0	72	2	3	1	1	2	81	84.80
1615 - 1630	0	0	81	1	3	0	0	4	89	93.00
1630 - 1645	0	0	71	1	5	0	0	2	79	81.00
Hourly Total	0	1	286	4	16	1	1	10	319	330.20
Hourly Average	0.00	0.25	71.50	1.00	4.00	0.25	0.25	2.50	79.75	82.55
1645 - 1700	0	1	81	0	10	1	0	0	93	92.90
1700 - 1715	0	2	78	1	2	1	0	1	85	85.30
1715 - 1730	0	0	87	1	5	0	0	0	93	93.00
1730 - 1745	0	0	95	1	2	0	0	1	99	100.00
Hourly Total	0	3	341	3	19	2	0	2	370	371.20
Hourly Average	0.00	0.75	85.25	0.75	4.75	0.50	0.00	0.50	92.50	92.80
1745 - 1800	0	1	78	1	5	0	1	2	88	90.70
1800 - 1815	0	1	93	0	1	0	0	1	96	96.40
1/2 Hourly Total	0	2	171	1	6	0	1	3	184	187.10
1/2 Hourly Average	0.00	1.00	85.50	0.50	3.00	0.00	0.50	1.50	92.00	93.55
Session Total	0	6	798	8	41	3	2	15	873	888.50
Session Average	0.00	0.60	79.80	0.80	4.10	0.30	0.20	1.50	87.30	88.85

Whitehaven, Cumbria
Classified Junction Count

Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long

lat 54.538145° lon -3.572216°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 9.6: Right from A595 Hensingham Bypass (North) to A595 Hensingham Bypass (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	5	206	0	21	4	4	0	241	244.40
0745 - 0800	0	0	180	0	24	3	5	0	212	220.00
0800 - 0815	0	0	148	1	19	5	2	1	176	182.10
0815 - 0830	0	2	149	0	28	7	4	1	191	199.50
Hourly Total	1	7	683	1	92	19	15	2	820	846.00
Hourly Average	0.25	1.75	170.75	0.25	23.00	4.75	3.75	0.50	205.00	211.50
0830 - 0845	0	1	125	0	30	9	4	1	170	180.10
0845 - 0900	0	0	160	0	26	4	7	1	198	210.10
0900 - 0915	0	0	123	2	23	5	1	2	156	161.80
0915 - 0930	0	0	114	1	29	11	5	0	160	172.00
Hourly Total	0	1	522	3	108	29	17	4	684	724.00
Hourly Average	0.00	0.25	130.50	0.75	27.00	7.25	4.25	1.00	171.00	181.00
Session Total	1	8	1205	4	200	48	32	6	1504	1570.00
Session Average	0.13	1.00	150.63	0.50	25.00	6.00	4.00	0.75	188.00	196.25

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 9.6: Right from A595 Hensingham Bypass (North) to A595 Hensingham Bypass (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	109	0	12	2	0	2	125	128.00
1600 - 1615	0	2	127	0	11	2	2	0	144	146.40
1615 - 1630	0	3	154	3	14	1	0	1	176	175.70
1630 - 1645	0	1	151	1	19	3	1	1	177	180.20
Hourly Total	0	6	541	4	56	8	3	4	622	630.30
Hourly Average	0.00	1.50	135.25	1.00	14.00	2.00	0.75	1.00	155.50	157.58
1645 - 1700	1	1	153	0	18	2	0	0	175	174.60
1700 - 1715	0	1	180	1	20	1	0	1	204	204.90
1715 - 1730	0	2	165	0	4	0	0	0	171	169.80
1730 - 1745	0	1	148	0	7	0	2	1	159	162.00
Hourly Total	1	5	646	1	49	3	2	2	709	711.30
Hourly Average	0.25	1.25	161.50	0.25	12.25	0.75	0.50	0.50	177.25	177.83
1745 - 1800	0	0	136	0	9	0	0	0	145	145.00
1800 - 1815	0	0	120	0	5	3	0	0	128	129.50
1/2 Hourly Total	0	0	256	0	14	3	0	0	273	274.50
1/2 Hourly Average	0.00	0.00	128.00	0.00	7.00	1.50	0.00	0.00	136.50	137.25
Session Total	1	11	1443	5	119	14	5	6	1604	1616.10
Session Average	0.10	1.10	144.30	0.50	11.90	1.40	0.50	0.60	160.40	161.61

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 10.1: Left from A595 Hensingham Bypass to A5094 Inkerman Terrace								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	71	0	9	1	0	0	81	81.50
0745 - 0800	1	1	103	0	13	0	0	3	121	122.60
0800 - 0815	0	0	90	0	7	2	0	0	99	100.00
0815 - 0830	0	0	110	0	3	0	0	2	115	117.00
Hourly Total	1	1	374	0	32	3	0	5	416	421.10
Hourly Average	0.25	0.25	93.50	0.00	8.00	0.75	0.00	1.25	104.00	105.28
0830 - 0845	0	0	129	1	7	0	0	1	138	139.00
0845 - 0900	0	0	125	1	7	0	0	2	135	137.00
0900 - 0915	0	0	136	0	9	0	0	2	147	149.00
0915 - 0930	0	0	125	1	6	2	0	2	136	139.00
Hourly Total	0	0	515	3	29	2	0	7	556	564.00
Hourly Average	0.00	0.00	128.75	0.75	7.25	0.50	0.00	1.75	139.00	141.00
Session Total	1	1	889	3	61	5	0	12	972	985.10
Session Average	0.13	0.13	111.13	0.38	7.63	0.63	0.00	1.50	121.50	123.14

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 10.1: Left from A595 Hensingham Bypass to A5094 Inkerman Terrace								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	1	104	0	6	0	0	3	115	116.60
1600 - 1615	0	0	115	0	8	1	0	1	125	126.50
1615 - 1630	0	0	103	0	6	0	0	3	112	115.00
1630 - 1645	0	0	119	0	11	0	0	0	130	130.00
Hourly Total	1	1	441	0	31	1	0	7	482	488.10
Hourly Average	0.25	0.25	110.25	0.00	7.75	0.25	0.00	1.75	120.50	122.03
1645 - 1700	0	0	148	0	9	0	0	1	158	159.00
1700 - 1715	0	0	131	0	6	0	0	1	138	139.00
1715 - 1730	0	0	141	0	11	0	0	2	154	156.00
1730 - 1745	1	1	93	0	7	0	0	1	103	102.60
Hourly Total	1	1	513	0	33	0	0	5	553	556.60
Hourly Average	0.25	0.25	128.25	0.00	8.25	0.00	0.00	1.25	138.25	139.15
1745 - 1800	1	0	131	0	15	0	0	1	148	148.20
1800 - 1815	0	0	98	0	7	0	0	0	105	105.00
1/2 Hourly Total	1	0	229	0	22	0	0	1	253	253.20
1/2 Hourly Average	0.50	0.00	114.50	0.00	11.00	0.00	0.00	0.50	126.50	126.60
Session Total	3	2	1183	0	86	1	0	13	1288	1297.90
Session Average	0.30	0.20	118.30	0.00	8.60	0.10	0.00	1.30	128.80	129.79

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 10.2: Left from A595 Hensingham Bypass to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	103	0	12	2	1	0	118	120.30
0745 - 0800	0	1	120	1	19	5	0	5	151	157.90
0800 - 0815	0	2	121	1	13	2	1	2	142	145.10
0815 - 0830	0	0	124	0	16	7	1	2	150	156.80
Hourly Total	0	3	468	2	60	16	3	9	561	580.10
Hourly Average	0.00	0.75	117.00	0.50	15.00	4.00	0.75	2.25	140.25	145.03
0830 - 0845	0	0	152	1	17	2	1	1	174	177.30
0845 - 0900	0	1	103	1	11	0	2	1	119	122.00
0900 - 0915	0	0	102	1	14	8	4	1	130	140.20
0915 - 0930	0	0	75	2	8	5	2	2	94	101.10
Hourly Total	0	1	432	5	50	15	9	5	517	540.60
Hourly Average	0.00	0.25	108.00	1.25	12.50	3.75	2.25	1.25	129.25	135.15
Session Total	0	4	900	7	110	31	12	14	1078	1120.70
Session Average	0.00	0.50	112.50	0.88	13.75	3.88	1.50	1.75	134.75	140.09

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 10.2: Left from A595 Hensingham Bypass to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	3	153	0	20	5	2	1	185	188.50
1600 - 1615	6	5	150	1	17	4	2	3	188	187.80
1615 - 1630	4	6	158	2	21	3	2	1	197	195.30
1630 - 1645	3	2	142	1	15	4	2	2	171	174.00
Hourly Total	14	16	603	4	73	16	8	7	741	745.60
Hourly Average	3.50	4.00	150.75	1.00	18.25	4.00	2.00	1.75	185.25	186.40
1645 - 1700	0	2	177	1	12	3	2	0	197	199.90
1700 - 1715	3	1	172	1	17	3	1	0	198	197.80
1715 - 1730	0	1	167	1	8	2	1	3	183	187.70
1730 - 1745	2	2	159	1	11	3	2	1	181	183.30
Hourly Total	5	6	675	4	48	11	6	4	759	768.70
Hourly Average	1.25	1.50	168.75	1.00	12.00	2.75	1.50	1.00	189.75	192.18
1745 - 1800	0	2	143	1	12	1	1	1	161	162.60
1800 - 1815	0	0	150	0	10	0	0	1	161	162.00
1/2 Hourly Total	0	2	293	1	22	1	1	2	322	324.60
1/2 Hourly Average	0.00	1.00	146.50	0.50	11.00	0.50	0.50	1.00	161.00	162.30
Session Total	19	24	1571	9	143	28	15	13	1822	1838.90
Session Average	1.90	2.40	157.10	0.90	14.30	2.80	1.50	1.30	182.20	183.89

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

Movement 10.3: Left from A5094 Inkerman Terrace to A595 Loop Road South									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	8	0	0	0	0	0	8	8.00
0745 - 0800	0	0	9	0	0	0	0	1	10	11.00
0800 - 0815	0	0	18	0	1	1	0	2	22	24.50
0815 - 0830	0	0	20	0	4	0	0	0	24	24.00
Hourly Total	0	0	55	0	5	1	0	3	64	67.50
Hourly Average	0.00	0.00	13.75	0.00	1.25	0.25	0.00	0.75	16.00	16.88
0830 - 0845	0	0	33	1	0	0	0	0	34	34.00
0845 - 0900	0	0	17	0	2	0	0	1	20	21.00
0900 - 0915	0	0	18	1	1	0	0	1	21	22.00
0915 - 0930	0	0	18	0	3	0	0	0	21	21.00
Hourly Total	0	0	86	2	6	0	0	2	96	98.00
Hourly Average	0.00	0.00	21.50	0.50	1.50	0.00	0.00	0.50	24.00	24.50
Session Total	0	0	141	2	11	1	0	5	160	165.50
Session Average	0.00	0.00	17.63	0.25	1.38	0.13	0.00	0.63	20.00	20.69

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

Movement 10.3: Left from A5094 Inkerman Terrace to A595 Loop Road South									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	30	0	2	0	0	1	33	34.00
1600 - 1615	0	0	24	0	2	0	0	1	27	28.00
1615 - 1630	0	0	30	0	3	0	0	0	33	33.00
1630 - 1645	0	0	37	0	3	0	1	1	42	44.30
Hourly Total	0	0	121	0	10	0	1	3	135	139.30
Hourly Average	0.00	0.00	30.25	0.00	2.50	0.00	0.25	0.75	33.75	34.83
1645 - 1700	0	0	33	0	1	0	0	0	34	34.00
1700 - 1715	0	0	21	0	1	0	0	0	22	22.00
1715 - 1730	0	0	22	0	2	0	0	1	25	26.00
1730 - 1745	0	0	24	0	1	0	0	1	26	27.00
Hourly Total	0	0	100	0	5	0	0	2	107	109.00
Hourly Average	0.00	0.00	25.00	0.00	1.25	0.00	0.00	0.50	26.75	27.25
1745 - 1800	0	0	38	1	4	0	0	0	43	43.00
1800 - 1815	0	1	27	0	0	0	0	1	29	29.40
1/2 Hourly Total	0	1	65	1	4	0	0	1	72	72.40
1/2 Hourly Average	0.00	0.50	32.50	0.50	2.00	0.00	0.00	0.50	36.00	36.20
Session Total	0	1	286	1	19	0	1	6	314	320.70
Session Average	0.00	0.10	28.60	0.10	1.90	0.00	0.10	0.60	31.40	32.07

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 10.4: Right from A5094 Inkerman Terrace to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	43	0	9	1	0	0	53	53.50
0745 - 0800	0	0	49	0	6	1	2	1	59	63.10
0800 - 0815	0	0	51	1	8	0	0	1	61	62.00
0815 - 0830	0	0	75	0	9	1	1	2	88	91.80
Hourly Total	0	0	218	1	32	3	3	4	261	270.40
Hourly Average	0.00	0.00	54.50	0.25	8.00	0.75	0.75	1.00	65.25	67.60
0830 - 0845	0	0	54	0	9	0	0	0	63	63.00
0845 - 0900	0	0	70	1	12	0	1	2	86	89.30
0900 - 0915	1	0	62	0	11	1	0	2	77	78.70
0915 - 0930	0	0	51	1	10	0	0	3	65	68.00
Hourly Total	1	0	237	2	42	1	1	7	291	299.00
Hourly Average	0.25	0.00	59.25	0.50	10.50	0.25	0.25	1.75	72.75	74.75
Session Total	1	0	455	3	74	4	4	11	552	569.40
Session Average	0.13	0.00	56.88	0.38	9.25	0.50	0.50	1.38	69.00	71.18

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 10.4: Right from A5094 Inkerman Terrace to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	97	1	4	0	0	1	104	104.40
1600 - 1615	0	0	99	0	5	0	0	1	105	106.00
1615 - 1630	0	0	115	2	5	0	1	1	124	126.30
1630 - 1645	0	0	111	2	8	0	0	3	124	127.00
Hourly Total	0	1	422	5	22	0	1	6	457	463.70
Hourly Average	0.00	0.25	105.50	1.25	5.50	0.00	0.25	1.50	114.25	115.93
1645 - 1700	1	0	100	0	4	0	0	0	105	104.20
1700 - 1715	0	3	127	1	5	0	0	0	136	134.20
1715 - 1730	0	2	105	1	4	0	0	0	112	110.80
1730 - 1745	0	0	115	1	2	0	0	1	119	120.00
Hourly Total	1	5	447	3	15	0	0	1	472	469.20
Hourly Average	0.25	1.25	111.75	0.75	3.75	0.00	0.00	0.25	118.00	117.30
1745 - 1800	0	1	106	0	9	0	0	2	118	119.40
1800 - 1815	0	1	101	0	1	0	0	0	103	102.40
1/2 Hourly Total	0	2	207	0	10	0	0	2	221	221.80
1/2 Hourly Average	0.00	1.00	103.50	0.00	5.00	0.00	0.00	1.00	110.50	110.90
Session Total	1	8	1076	8	47	0	1	9	1150	1154.70
Session Average	0.10	0.80	107.60	0.80	4.70	0.00	0.10	0.90	115.00	115.47

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 10.5: Right from A595 Loop Road South to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	4	185	0	24	4	5	0	223	228.30
0745 - 0800	0	0	148	1	19	3	5	0	176	184.00
0800 - 0815	0	0	138	0	18	5	4	0	165	172.70
0815 - 0830	0	3	127	0	23	9	3	0	165	171.60
Hourly Total	1	7	598	1	84	21	17	0	729	756.60
Hourly Average	0.25	1.75	149.50	0.25	21.00	5.25	4.25	0.00	182.25	189.15
0830 - 0845	0	1	118	0	26	9	5	2	161	173.40
0845 - 0900	0	0	137	0	22	4	8	1	172	185.40
0900 - 0915	0	0	113	0	17	4	3	0	137	142.90
0915 - 0930	0	0	105	2	31	14	5	0	157	170.50
Hourly Total	0	1	473	2	96	31	21	3	627	672.20
Hourly Average	0.00	0.25	118.25	0.50	24.00	7.75	5.25	0.75	156.75	168.05
Session Total	1	8	1071	3	180	52	38	3	1356	1428.80
Session Average	0.13	1.00	133.88	0.38	22.50	6.50	4.75	0.38	169.50	178.60

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 10.5: Right from A595 Loop Road South to A595 Hensingham Bypass								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	72	0	15	2	0	1	90	92.00
1600 - 1615	0	2	99	0	9	3	2	2	117	121.90
1615 - 1630	0	3	122	3	11	0	0	4	143	145.20
1630 - 1645	0	1	115	0	15	4	1	1	137	140.70
Hourly Total	0	6	408	3	50	9	3	8	487	499.80
Hourly Average	0.00	1.50	102.00	0.75	12.50	2.25	0.75	2.00	121.75	124.95
1645 - 1700	0	2	142	0	25	2	0	0	171	170.80
1700 - 1715	0	0	128	1	17	1	0	2	149	151.50
1715 - 1730	0	0	146	0	6	1	0	0	153	153.50
1730 - 1745	0	1	134	0	6	1	2	1	145	148.50
Hourly Total	0	3	550	1	54	5	2	3	618	624.30
Hourly Average	0.00	0.75	137.50	0.25	13.50	1.25	0.50	0.75	154.50	156.08
1745 - 1800	0	0	105	1	5	1	1	0	113	114.80
1800 - 1815	0	0	110	0	5	2	0	1	118	120.00
1/2 Hourly Total	0	0	215	1	10	3	1	1	231	234.80
1/2 Hourly Average	0.00	0.00	107.50	0.50	5.00	1.50	0.50	0.50	115.50	117.40
Session Total	0	9	1173	5	114	17	6	12	1336	1358.90
Session Average	0.00	0.90	117.30	0.50	11.40	1.70	0.60	1.20	133.60	135.89

Whitehaven, Cumbria
Classified Junction Count

Site 10 of 14
A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long
lat 54.539670° lon -3.573300°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 10.6: Right from A595 Loop Road South to A5094 Inkerman Terrace								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	12	0	1	0	1	1	15	17.30
0745 - 0800	0	0	25	0	3	0	0	0	28	28.00
0800 - 0815	0	0	33	0	1	0	0	1	35	36.00
0815 - 0830	0	0	30	0	4	0	0	0	34	34.00
Hourly Total	0	0	100	0	9	0	1	2	112	115.30
Hourly Average	0.00	0.00	25.00	0.00	2.25	0.00	0.25	0.50	28.00	28.83
0830 - 0845	1	0	69	0	3	0	0	0	73	72.20
0845 - 0900	0	0	56	0	5	0	0	0	61	61.00
0900 - 0915	0	0	24	0	2	2	0	1	29	31.00
0915 - 0930	0	0	29	0	1	2	1	0	33	35.30
Hourly Total	1	0	178	0	11	4	1	1	196	199.50
Hourly Average	0.25	0.00	44.50	0.00	2.75	1.00	0.25	0.25	49.00	49.88
Session Total	1	0	278	0	20	4	2	3	308	314.80
Session Average	0.13	0.00	34.75	0.00	2.50	0.50	0.25	0.38	38.50	39.35

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 10.6: Right from A595 Loop Road South to A5094 Inkerman Terrace								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	30	0	1	0	0	0	31	31.00
1600 - 1615	0	0	29	0	2	0	0	1	32	33.00
1615 - 1630	0	0	36	0	0	0	0	1	37	38.00
1630 - 1645	0	0	29	0	0	0	0	1	30	31.00
Hourly Total	0	0	124	0	3	0	0	3	130	133.00
Hourly Average	0.00	0.00	31.00	0.00	0.75	0.00	0.00	0.75	32.50	33.25
1645 - 1700	0	0	33	0	3	0	0	0	36	36.00
1700 - 1715	0	0	29	0	0	0	0	1	30	31.00
1715 - 1730	0	0	26	0	0	0	0	0	26	26.00
1730 - 1745	0	0	24	0	0	0	0	1	25	26.00
Hourly Total	0	0	112	0	3	0	0	2	117	119.00
Hourly Average	0.00	0.00	28.00	0.00	0.75	0.00	0.00	0.50	29.25	29.75
1745 - 1800	0	0	49	0	1	0	0	0	50	50.00
1800 - 1815	0	1	26	0	3	0	0	1	31	31.40
1/2 Hourly Total	0	1	75	0	4	0	0	1	81	81.40
1/2 Hourly Average	0.00	0.50	37.50	0.00	2.00	0.00	0.00	0.50	40.50	40.70
Session Total	0	1	311	0	10	0	0	6	328	333.40
Session Average	0.00	0.10	31.10	0.00	1.00	0.00	0.00	0.60	32.80	33.34

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 11.1: Left from Highlands to A595 Loop Road South (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	12	0	1	0	0	0	13	13.00
0745 - 0800	0	0	16	0	0	0	0	0	16	16.00
0800 - 0815	0	0	25	0	0	0	0	0	25	25.00
0815 - 0830	0	0	15	0	0	1	0	0	16	16.50
Hourly Total	0	0	68	0	1	1	0	0	70	70.50
Hourly Average	0.00	0.00	17.00	0.00	0.25	0.25	0.00	0.00	17.50	17.63
0830 - 0845	0	0	26	0	0	0	0	0	26	26.00
0845 - 0900	0	0	18	0	1	0	0	0	19	19.00
0900 - 0915	0	0	11	0	0	0	0	0	11	11.00
0915 - 0930	0	0	10	0	0	0	0	1	11	12.00
Hourly Total	0	0	65	0	1	0	0	1	67	68.00
Hourly Average	0.00	0.00	16.25	0.00	0.25	0.00	0.00	0.25	16.75	17.00
Session Total	0	0	133	0	2	1	0	1	137	138.50
Session Average	0.00	0.00	16.63	0.00	0.25	0.13	0.00	0.13	17.13	17.31

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 11.1: Left from Highlands to A595 Loop Road South (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	7	0	0	0	0	0	7	7.00
1600 - 1615	0	1	13	0	0	0	0	0	14	13.40
1615 - 1630	0	0	13	0	1	0	0	0	14	14.00
1630 - 1645	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	1	39	0	1	0	0	0	41	40.40
Hourly Average	0.00	0.25	9.75	0.00	0.25	0.00	0.00	0.00	10.25	10.10
1645 - 1700	0	0	14	0	0	0	0	0	14	14.00
1700 - 1715	0	0	8	0	2	0	0	1	11	12.00
1715 - 1730	0	0	12	0	0	0	0	0	12	12.00
1730 - 1745	0	0	12	0	1	0	0	0	13	13.00
Hourly Total	0	0	46	0	3	0	0	1	50	51.00
Hourly Average	0.00	0.00	11.50	0.00	0.75	0.00	0.00	0.25	12.50	12.75
1745 - 1800	0	0	18	0	0	0	0	0	18	18.00
1800 - 1815	0	0	9	0	0	0	0	0	9	9.00
1/2 Hourly Total	0	0	27	0	0	0	0	0	27	27.00
1/2 Hourly Average	0.00	0.00	13.50	0.00	0.00	0.00	0.00	0.00	13.50	13.50
Session Total	0	1	112	0	4	0	0	1	118	118.40
Session Average	0.00	0.10	11.20	0.00	0.40	0.00	0.00	0.10	11.80	11.84

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 11.2: Right from Highlands to A595 Loop Road South (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	9	0	1	0	0	0	10	10.00
0745 - 0800	0	0	17	0	2	0	0	0	19	19.00
0800 - 0815	0	0	14	0	0	0	0	0	14	14.00
0815 - 0830	0	0	16	0	0	0	0	0	16	16.00
Hourly Total	0	0	56	0	3	0	0	0	59	59.00
Hourly Average	0.00	0.00	14.00	0.00	0.75	0.00	0.00	0.00	14.75	14.75
0830 - 0845	0	0	23	0	2	0	0	0	25	25.00
0845 - 0900	0	0	16	0	0	0	0	0	16	16.00
0900 - 0915	0	0	9	0	1	0	0	0	10	10.00
0915 - 0930	0	0	9	0	1	0	0	0	10	10.00
Hourly Total	0	0	57	0	4	0	0	0	61	61.00
Hourly Average	0.00	0.00	14.25	0.00	1.00	0.00	0.00	0.00	15.25	15.25
Session Total	0	0	113	0	7	0	0	0	120	120.00
Session Average	0.00	0.00	14.13	0.00	0.88	0.00	0.00	0.00	15.00	15.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 11.2: Right from Highlands to A595 Loop Road South (North)								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	4	0	0	0	0	0	4	4.00
1600 - 1615	0	0	13	0	0	0	0	0	13	13.00
1615 - 1630	0	0	6	0	0	0	0	0	6	6.00
1630 - 1645	0	0	12	0	1	0	0	0	13	13.00
Hourly Total	0	0	35	0	1	0	0	0	36	36.00
Hourly Average	0.00	0.00	8.75	0.00	0.25	0.00	0.00	0.00	9.00	9.00
1645 - 1700	0	0	9	0	0	0	0	0	9	9.00
1700 - 1715	0	0	4	0	1	0	0	0	5	5.00
1715 - 1730	0	0	12	0	0	0	0	0	12	12.00
1730 - 1745	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	28	0	1	0	0	0	29	29.00
Hourly Average	0.00	0.00	7.00	0.00	0.25	0.00	0.00	0.00	7.25	7.25
1745 - 1800	0	0	7	0	1	0	0	0	8	8.00
1800 - 1815	0	0	6	0	1	0	0	0	7	7.00
1/2 Hourly Total	0	0	13	0	2	0	0	0	15	15.00
1/2 Hourly Average	0.00	0.00	6.50	0.00	1.00	0.00	0.00	0.00	7.50	7.50
Session Total	0	0	76	0	4	0	0	0	80	80.00
Session Average	0.00	0.00	7.60	0.00	0.40	0.00	0.00	0.00	8.00	8.00

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 11.3: Left from A595 Loop Road South (South) to A595 Loop Road South (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	121	0	13	4	0	0	138	140.00
0745 - 0800	0	1	150	2	26	6	1	5	191	199.70
0800 - 0815	0	2	142	0	14	3	1	4	166	171.60
0815 - 0830	0	0	142	0	15	4	1	4	166	173.30
Hourly Total	0	3	555	2	68	17	3	13	661	684.60
Hourly Average	0.00	0.75	138.75	0.50	17.00	4.25	0.75	3.25	165.25	171.15
0830 - 0845	0	0	194	2	22	4	0	1	223	226.00
0845 - 0900	0	1	153	2	12	2	1	0	171	172.70
0900 - 0915	0	0	134	1	18	4	6	1	164	174.80
0915 - 0930	0	0	94	2	12	5	2	1	116	122.10
Hourly Total	0	1	575	7	64	15	9	3	674	695.60
Hourly Average	0.00	0.25	143.75	1.75	16.00	3.75	2.25	0.75	168.50	173.90
Session Total	0	4	1130	9	132	32	12	16	1335	1380.20
Session Average	0.00	0.50	141.25	1.13	16.50	4.00	1.50	2.00	166.88	172.53

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 11.3: Left from A595 Loop Road South (South) to A595 Loop Road South (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	3	146	1	28	4	3	1	187	191.30
1600 - 1615	5	5	140	1	19	4	2	2	178	177.60
1615 - 1630	3	4	154	1	16	5	1	0	184	183.00
1630 - 1645	4	3	182	1	15	3	3	1	212	213.40
Hourly Total	13	15	622	4	78	16	9	4	761	765.30
Hourly Average	3.25	3.75	155.50	1.00	19.50	4.00	2.25	1.00	190.25	191.33
1645 - 1700	0	2	182	1	11	2	1	0	199	200.10
1700 - 1715	2	1	176	1	16	3	3	0	202	205.20
1715 - 1730	1	1	141	1	11	3	0	3	161	164.10
1730 - 1745	1	2	181	1	10	3	2	1	201	204.10
Hourly Total	4	6	680	4	48	11	6	4	763	773.50
Hourly Average	1.00	1.50	170.00	1.00	12.00	2.75	1.50	1.00	190.75	193.38
1745 - 1800	0	2	158	1	13	1	1	1	177	178.60
1800 - 1815	0	0	164	1	11	0	0	0	176	176.00
1/2 Hourly Total	0	2	322	2	24	1	1	1	353	354.60
1/2 Hourly Average	0.00	1.00	161.00	1.00	12.00	0.50	0.50	0.50	176.50	177.30
Session Total	17	23	1624	10	150	28	16	9	1877	1893.40
Session Average	1.70	2.30	162.40	1.00	15.00	2.80	1.60	0.90	187.70	189.34

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 11.4: Right from A595 Loop Road South (South) to Highlands								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	3	0	0	0	0	0	3	3.00
0800 - 0815	0	0	5	0	0	0	0	0	5	5.00
0815 - 0830	0	0	5	0	1	0	0	0	6	6.00
Hourly Total	0	0	14	0	1	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.50	0.00	0.25	0.00	0.00	0.00	3.75	3.75
0830 - 0845	0	0	3	0	0	0	0	0	3	3.00
0845 - 0900	0	0	8	0	0	0	0	0	8	8.00
0900 - 0915	0	0	9	0	0	0	0	0	9	9.00
0915 - 0930	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	22	0	0	0	0	0	22	22.00
Hourly Average	0.00	0.00	5.50	0.00	0.00	0.00	0.00	0.00	5.50	5.50
Session Total	0	0	36	0	1	0	0	0	37	37.00
Session Average	0.00	0.00	4.50	0.00	0.13	0.00	0.00	0.00	4.63	4.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 11.4: Right from A595 Loop Road South (South) to Highlands								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	16	0	0	0	0	0	16	16.00
1600 - 1615	0	1	15	0	1	0	0	0	17	16.40
1615 - 1630	0	0	18	0	1	0	0	0	19	19.00
1630 - 1645	1	0	20	0	0	0	0	0	21	20.20
Hourly Total	1	1	69	0	2	0	0	0	73	71.60
Hourly Average	0.25	0.25	17.25	0.00	0.50	0.00	0.00	0.00	18.25	17.90
1645 - 1700	0	0	19	0	0	0	0	0	19	19.00
1700 - 1715	0	0	19	0	1	0	0	0	20	20.00
1715 - 1730	0	0	13	0	0	0	0	0	13	13.00
1730 - 1745	1	0	17	0	1	0	0	0	19	18.20
Hourly Total	1	0	68	0	2	0	0	0	71	70.20
Hourly Average	0.25	0.00	17.00	0.00	0.50	0.00	0.00	0.00	17.75	17.55
1745 - 1800	0	0	24	0	1	0	0	0	25	25.00
1800 - 1815	0	1	13	0	1	0	0	0	15	14.40
1/2 Hourly Total	0	1	37	0	2	0	0	0	40	39.40
1/2 Hourly Average	0.00	0.50	18.50	0.00	1.00	0.00	0.00	0.00	20.00	19.70
Session Total	2	2	174	0	6	0	0	0	184	181.20
Session Average	0.20	0.20	17.40	0.00	0.60	0.00	0.00	0.00	18.40	18.12

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 11.5: Left from A595 Loop Road South (North) to Highlands								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	2	0	0	0	0	0	2	2.00
0745 - 0800	0	0	7	0	0	0	0	0	7	7.00
0800 - 0815	0	0	2	0	0	0	0	0	2	2.00
0815 - 0830	0	0	1	0	0	1	0	0	2	2.50
Hourly Total	0	0	12	0	0	1	0	0	13	13.50
Hourly Average	0.00	0.00	3.00	0.00	0.00	0.25	0.00	0.00	3.25	3.38
0830 - 0845	0	0	2	0	0	0	0	0	2	2.00
0845 - 0900	0	0	5	0	2	0	0	0	7	7.00
0900 - 0915	0	0	7	0	0	0	0	1	8	9.00
0915 - 0930	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	19	0	2	0	0	1	22	23.00
Hourly Average	0.00	0.00	4.75	0.00	0.50	0.00	0.00	0.25	5.50	5.75
Session Total	0	0	31	0	2	1	0	1	35	36.50
Session Average	0.00	0.00	3.88	0.00	0.25	0.13	0.00	0.13	4.38	4.56

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 11.5: Left from A595 Loop Road South (North) to Highlands								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	13	0	0	0	0	0	13	13.00
1600 - 1615	0	0	16	0	1	0	0	0	17	17.00
1615 - 1630	0	0	24	0	2	0	0	0	26	26.00
1630 - 1645	0	0	21	0	1	0	0	0	22	22.00
Hourly Total	0	0	74	0	4	0	0	0	78	78.00
Hourly Average	0.00	0.00	18.50	0.00	1.00	0.00	0.00	0.00	19.50	19.50
1645 - 1700	0	0	20	0	1	0	0	0	21	21.00
1700 - 1715	0	1	20	0	3	0	0	0	24	23.40
1715 - 1730	0	1	20	0	0	0	0	0	21	20.40
1730 - 1745	0	0	19	0	0	0	0	0	19	19.00
Hourly Total	0	2	79	0	4	0	0	0	85	83.80
Hourly Average	0.00	0.50	19.75	0.00	1.00	0.00	0.00	0.00	21.25	20.95
1745 - 1800	0	1	35	0	1	0	0	0	37	36.40
1800 - 1815	0	0	18	0	0	0	0	0	18	18.00
1/2 Hourly Total	0	1	53	0	1	0	0	0	55	54.40
1/2 Hourly Average	0.00	0.50	26.50	0.00	0.50	0.00	0.00	0.00	27.50	27.20
Session Total	0	3	206	0	9	0	0	0	218	216.20
Session Average	0.00	0.30	20.60	0.00	0.90	0.00	0.00	0.00	21.80	21.62

Whitehaven, Cumbria
Classified Junction Count

Site 11 of 14
Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long
lat 54.550592° lon -3.580690°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 11.6: Right from A595 Loop Road South (North) to A595 Loop Road South (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	4	167	0	16	7	6	0	201	209.10
0745 - 0800	0	0	152	1	20	1	3	0	177	181.40
0800 - 0815	0	1	132	0	18	7	4	0	162	170.10
0815 - 0830	0	2	108	0	31	5	5	0	151	158.80
Hourly Total	1	7	559	1	85	20	18	0	691	719.40
Hourly Average	0.25	1.75	139.75	0.25	21.25	5.00	4.50	0.00	172.75	179.85
0830 - 0845	1	1	122	0	27	8	6	2	167	179.40
0845 - 0900	0	0	123	1	24	7	5	1	161	172.00
0900 - 0915	0	0	119	1	17	6	6	0	149	159.80
0915 - 0930	0	0	97	0	26	13	5	0	141	154.00
Hourly Total	1	1	461	2	94	34	22	3	618	665.20
Hourly Average	0.25	0.25	115.25	0.50	23.50	8.50	5.50	0.75	154.50	166.30
Session Total	2	8	1020	3	179	54	40	3	1309	1384.60
Session Average	0.25	1.00	127.50	0.38	22.38	6.75	5.00	0.38	163.63	173.08

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 11.6: Right from A595 Loop Road South (North) to A595 Loop Road South (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	87	0	16	2	1	2	108	112.30
1600 - 1615	0	1	115	1	11	3	2	3	136	142.50
1615 - 1630	0	3	161	2	9	0	0	5	180	183.20
1630 - 1645	0	1	140	0	17	4	0	1	163	165.40
Hourly Total	0	5	503	3	53	9	3	11	587	603.40
Hourly Average	0.00	1.25	125.75	0.75	13.25	2.25	0.75	2.75	146.75	150.85
1645 - 1700	0	2	173	0	26	2	0	0	203	202.80
1700 - 1715	0	0	148	1	11	1	1	2	164	167.80
1715 - 1730	0	0	169	0	10	1	1	0	181	182.80
1730 - 1745	0	1	128	0	7	1	0	1	138	138.90
Hourly Total	0	3	618	1	54	5	2	3	686	692.30
Hourly Average	0.00	0.75	154.50	0.25	13.50	1.25	0.50	0.75	171.50	173.08
1745 - 1800	0	0	127	0	6	0	1	0	134	135.30
1800 - 1815	0	1	135	1	8	3	0	1	149	150.90
1/2 Hourly Total	0	1	262	1	14	3	1	1	283	286.20
1/2 Hourly Average	0.00	0.50	131.00	0.50	7.00	1.50	0.50	0.50	141.50	143.10
Session Total	0	9	1383	5	121	17	6	15	1556	1581.90
Session Average	0.00	0.90	138.30	0.50	12.10	1.70	0.60	1.50	155.60	158.19

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 12.1: Left from Oakbank Road to Park View								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	2	0	0	0	0	0	2	2.00
0745 - 0800	0	0	2	0	0	0	0	0	2	2.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
0830 - 0845	0	0	1	0	0	0	0	0	1	1.00
0845 - 0900	0	0	0	0	0	0	0	0	0	0.00
0900 - 0915	0	0	0	0	0	0	0	0	0	0.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	0	5	0	0	0	0	0	5	5.00
Session Average	0.00	0.00	0.63	0.00	0.00	0.00	0.00	0.00	0.63	0.63

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 12.1: Left from Oakbank Road to Park View								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	0	0	0	0	0	0	0	0.00
1600 - 1615	0	0	0	0	1	0	0	0	1	1.00
1615 - 1630	0	0	0	0	0	0	0	0	0	0.00
1630 - 1645	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
1645 - 1700	0	0	0	0	0	0	0	0	0	0.00
1700 - 1715	0	0	0	0	0	0	0	0	0	0.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	0	0	0	1	0	0	0	1	1.00
Session Average	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.10	0.10

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 12.2: Westbound from Oakbank Road to Solway View								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	0	12	0	2	0	0	0	15	14.20
0745 - 0800	0	0	42	0	1	0	0	0	43	43.00
0800 - 0815	0	0	30	1	0	0	0	0	31	31.00
0815 - 0830	0	0	22	0	0	0	0	0	22	22.00
Hourly Total	1	0	106	1	3	0	0	0	111	110.20
Hourly Average	0.25	0.00	26.50	0.25	0.75	0.00	0.00	0.00	27.75	27.55
0830 - 0845	0	0	67	0	0	0	0	0	67	67.00
0845 - 0900	0	0	45	0	1	0	0	0	46	46.00
0900 - 0915	0	0	26	0	2	2	0	0	30	31.00
0915 - 0930	0	0	8	0	1	0	0	0	9	9.00
Hourly Total	0	0	146	0	4	2	0	0	152	153.00
Hourly Average	0.00	0.00	36.50	0.00	1.00	0.50	0.00	0.00	38.00	38.25
Session Total	1	0	252	1	7	2	0	0	263	263.20
Session Average	0.13	0.00	31.50	0.13	0.88	0.25	0.00	0.00	32.88	32.90

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 12.2: Westbound from Oakbank Road to Solway View								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	13	0	0	0	0	0	13	13.00
1600 - 1615	0	0	25	0	1	0	0	0	26	26.00
1615 - 1630	0	0	21	0	0	0	0	0	21	21.00
1630 - 1645	0	0	33	0	1	0	0	0	34	34.00
Hourly Total	0	0	92	0	2	0	0	0	94	94.00
Hourly Average	0.00	0.00	23.00	0.00	0.50	0.00	0.00	0.00	23.50	23.50
1645 - 1700	0	0	27	0	2	0	0	0	29	29.00
1700 - 1715	0	0	31	0	0	0	0	0	31	31.00
1715 - 1730	0	0	30	0	1	0	0	0	31	31.00
1730 - 1745	0	0	26	0	0	0	0	0	26	26.00
Hourly Total	0	0	114	0	3	0	0	0	117	117.00
Hourly Average	0.00	0.00	28.50	0.00	0.75	0.00	0.00	0.00	29.25	29.25
1745 - 1800	0	0	23	0	0	0	0	0	23	23.00
1800 - 1815	0	0	18	0	1	0	0	0	19	19.00
1/2 Hourly Total	0	0	41	0	1	0	0	0	42	42.00
1/2 Hourly Average	0.00	0.00	20.50	0.00	0.50	0.00	0.00	0.00	21.00	21.00
Session Total	0	0	247	0	6	0	0	0	253	253.00
Session Average	0.00	0.00	24.70	0.00	0.60	0.00	0.00	0.00	25.30	25.30

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 12.3: Left from Park View to Solway View								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	17	0	1	0	0	0	18	18.00
0745 - 0800	0	0	30	0	3	0	0	0	33	33.00
0800 - 0815	0	0	24	0	2	0	0	0	26	26.00
0815 - 0830	0	0	29	0	3	1	0	0	33	33.50
Hourly Total	0	0	100	0	9	1	0	0	110	110.50
Hourly Average	0.00	0.00	25.00	0.00	2.25	0.25	0.00	0.00	27.50	27.63
0830 - 0845	0	0	61	0	3	0	0	0	64	64.00
0845 - 0900	0	0	30	0	1	0	0	0	31	31.00
0900 - 0915	0	0	20	0	6	0	0	0	26	26.00
0915 - 0930	0	0	22	0	0	0	0	0	22	22.00
Hourly Total	0	0	133	0	10	0	0	0	143	143.00
Hourly Average	0.00	0.00	33.25	0.00	2.50	0.00	0.00	0.00	35.75	35.75
Session Total	0	0	233	0	19	1	0	0	253	253.50
Session Average	0.00	0.00	29.13	0.00	2.38	0.13	0.00	0.00	31.63	31.69

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 12.3: Left from Park View to Solway View								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	26	0	3	0	0	0	29	29.00
1600 - 1615	0	0	22	0	1	1	0	0	24	24.50
1615 - 1630	1	0	14	0	3	0	0	0	18	17.20
1630 - 1645	0	0	28	1	1	0	0	0	30	30.00
Hourly Total	1	0	90	1	8	1	0	0	101	100.70
Hourly Average	0.25	0.00	22.50	0.25	2.00	0.25	0.00	0.00	25.25	25.18
1645 - 1700	0	0	24	0	1	0	0	0	25	25.00
1700 - 1715	0	0	28	0	1	0	0	0	29	29.00
1715 - 1730	1	1	30	0	1	0	0	0	33	31.60
1730 - 1745	0	0	15	0	1	0	0	0	16	16.00
Hourly Total	1	1	97	0	4	0	0	0	103	101.60
Hourly Average	0.25	0.25	24.25	0.00	1.00	0.00	0.00	0.00	25.75	25.40
1745 - 1800	0	0	25	0	1	0	0	0	26	26.00
1800 - 1815	0	0	10	0	0	0	0	0	10	10.00
1/2 Hourly Total	0	0	35	0	1	0	0	0	36	36.00
1/2 Hourly Average	0.00	0.00	17.50	0.00	0.50	0.00	0.00	0.00	18.00	18.00
Session Total	2	1	222	1	13	1	0	0	240	238.30
Session Average	0.20	0.10	22.20	0.10	1.30	0.10	0.00	0.00	24.00	23.83

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 12.4: Right from Park View to Oakbank Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	0	0	0	0	0	0	0	0.00
0745 - 0800	0	0	0	0	0	0	0	0	0	0.00
0800 - 0815	0	0	0	0	0	0	0	0	0	0.00
0815 - 0830	0	0	0	0	0	1	0	0	1	1.50
Hourly Total	0	0	0	0	0	1	0	0	1	1.50
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.25	0.38
0830 - 0845	0	0	1	0	1	0	0	0	2	2.00
0845 - 0900	0	0	0	0	1	0	0	0	1	1.00
0900 - 0915	0	0	0	0	0	0	0	0	0	0.00
0915 - 0930	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	2	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.25	0.00	0.50	0.00	0.00	0.00	0.75	0.75
Session Total	0	0	1	0	2	1	0	0	4	4.50
Session Average	0.00	0.00	0.13	0.00	0.25	0.13	0.00	0.00	0.50	0.56

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 12.4: Right from Park View to Oakbank Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	2	0	0	0	0	0	2	2.00
1600 - 1615	0	0	2	0	0	0	0	0	2	2.00
1615 - 1630	0	0	1	0	2	0	0	0	3	3.00
1630 - 1645	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	6	0	2	0	0	0	8	8.00
Hourly Average	0.00	0.00	1.50	0.00	0.50	0.00	0.00	0.00	2.00	2.00
1645 - 1700	0	0	2	0	0	0	0	0	2	2.00
1700 - 1715	0	0	2	0	0	0	0	0	2	2.00
1715 - 1730	0	0	0	0	0	0	0	0	0	0.00
1730 - 1745	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	5	0	0	0	0	0	5	5.00
Hourly Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	1.25	1.25
1745 - 1800	0	0	2	0	0	0	0	0	2	2.00
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1/2 Hourly Total	0	0	2	0	0	0	0	0	2	2.00
1/2 Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
Session Total	0	0	13	0	2	0	0	0	15	15.00
Session Average	0.00	0.00	1.30	0.00	0.20	0.00	0.00	0.00	1.50	1.50

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 12.5: Eastbound from Solway View to Oakbank Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	7	0	1	0	0	0	8	8.00
0745 - 0800	0	0	16	0	1	0	0	0	17	17.00
0800 - 0815	0	0	6	0	0	0	0	0	6	6.00
0815 - 0830	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	33	0	2	0	0	0	35	35.00
Hourly Average	0.00	0.00	8.25	0.00	0.50	0.00	0.00	0.00	8.75	8.75
0830 - 0845	0	0	9	0	1	0	0	0	10	10.00
0845 - 0900	0	0	13	0	0	0	0	0	13	13.00
0900 - 0915	0	0	34	0	4	0	0	0	38	38.00
0915 - 0930	0	0	15	0	0	0	0	0	15	15.00
Hourly Total	0	0	71	0	5	0	0	0	76	76.00
Hourly Average	0.00	0.00	17.75	0.00	1.25	0.00	0.00	0.00	19.00	19.00
Session Total	0	0	104	0	7	0	0	0	111	111.00
Session Average	0.00	0.00	13.00	0.00	0.88	0.00	0.00	0.00	13.88	13.88

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 12.5: Eastbound from Solway View to Oakbank Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	32	0	4	0	0	1	37	38.00
1600 - 1615	0	1	33	0	1	0	0	0	35	34.40
1615 - 1630	0	0	50	0	1	0	0	0	51	51.00
1630 - 1645	0	0	43	0	2	0	0	0	45	45.00
Hourly Total	0	1	158	0	8	0	0	1	168	168.40
Hourly Average	0.00	0.25	39.50	0.00	2.00	0.00	0.00	0.25	42.00	42.10
1645 - 1700	0	0	41	0	2	0	0	0	43	43.00
1700 - 1715	0	1	58	0	1	1	0	0	61	60.90
1715 - 1730	0	1	44	0	1	0	0	0	46	45.40
1730 - 1745	0	0	45	0	2	0	0	0	47	47.00
Hourly Total	0	2	188	0	6	1	0	0	197	196.30
Hourly Average	0.00	0.50	47.00	0.00	1.50	0.25	0.00	0.00	49.25	49.08
1745 - 1800	0	0	39	0	1	1	0	0	41	41.50
1800 - 1815	0	0	27	0	0	0	0	0	27	27.00
1/2 Hourly Total	0	0	66	0	1	1	0	0	68	68.50
1/2 Hourly Average	0.00	0.00	33.00	0.00	0.50	0.50	0.00	0.00	34.00	34.25
Session Total	0	3	412	0	15	2	0	1	433	433.20
Session Average	0.00	0.30	41.20	0.00	1.50	0.20	0.00	0.10	43.30	43.32

Whitehaven, Cumbria
Classified Junction Count

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 12.6: Right from Solway View to Park View								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	0	8	0	3	0	0	0	12	11.20
0745 - 0800	0	0	12	0	2	0	0	0	14	14.00
0800 - 0815	0	0	14	0	3	0	0	0	17	17.00
0815 - 0830	0	0	21	0	1	0	0	0	22	22.00
Hourly Total	1	0	55	0	9	0	0	0	65	64.20
Hourly Average	0.25	0.00	13.75	0.00	2.25	0.00	0.00	0.00	16.25	16.05
0830 - 0845	0	0	16	0	0	0	0	0	16	16.00
0845 - 0900	0	0	10	0	2	0	0	0	12	12.00
0900 - 0915	1	0	10	0	1	0	0	0	12	11.20
0915 - 0930	0	0	10	0	3	0	0	0	13	13.00
Hourly Total	1	0	46	0	6	0	0	0	53	52.20
Hourly Average	0.25	0.00	11.50	0.00	1.50	0.00	0.00	0.00	13.25	13.05
Session Total	2	0	101	0	15	0	0	0	118	116.40
Session Average	0.25	0.00	12.63	0.00	1.88	0.00	0.00	0.00	14.75	14.55

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 12.6: Right from Solway View to Park View								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	26	0	2	0	0	1	29	30.00
1600 - 1615	0	0	40	0	2	0	0	1	43	44.00
1615 - 1630	0	0	34	0	2	0	0	0	36	36.00
1630 - 1645	0	0	33	0	2	0	0	0	35	35.00
Hourly Total	0	0	133	0	8	0	0	2	143	145.00
Hourly Average	0.00	0.00	33.25	0.00	2.00	0.00	0.00	0.50	35.75	36.25
1645 - 1700	0	0	27	0	1	0	0	0	28	28.00
1700 - 1715	0	0	38	0	2	0	0	0	40	40.00
1715 - 1730	0	0	25	0	0	0	0	0	25	25.00
1730 - 1745	0	0	23	0	2	0	0	0	25	25.00
Hourly Total	0	0	113	0	5	0	0	0	118	118.00
Hourly Average	0.00	0.00	28.25	0.00	1.25	0.00	0.00	0.00	29.50	29.50
1745 - 1800	0	0	26	0	2	0	0	0	28	28.00
1800 - 1815	0	0	21	0	4	0	0	0	25	25.00
1/2 Hourly Total	0	0	47	0	6	0	0	0	53	53.00
1/2 Hourly Average	0.00	0.00	23.50	0.00	3.00	0.00	0.00	0.00	26.50	26.50
Session Total	0	0	293	0	19	0	0	2	314	316.00
Session Average	0.00	0.00	29.30	0.00	1.90	0.00	0.00	0.20	31.40	31.60

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 13.1: Left from A595 Loop Road North to Victoria Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	7	0	0	0	0	0	7	7.00
0745 - 0800	0	0	9	0	2	1	0	0	12	12.50
0800 - 0815	0	0	8	0	0	0	0	1	9	10.00
0815 - 0830	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	27	0	2	1	0	1	31	32.50
Hourly Average	0.00	0.00	6.75	0.00	0.50	0.25	0.00	0.25	7.75	8.13
0830 - 0845	0	0	4	0	1	0	0	0	5	5.00
0845 - 0900	0	0	4	0	0	0	0	0	4	4.00
0900 - 0915	0	0	3	0	1	1	0	0	5	5.50
0915 - 0930	0	0	3	0	2	0	0	0	5	5.00
Hourly Total	0	0	14	0	4	1	0	0	19	19.50
Hourly Average	0.00	0.00	3.50	0.00	1.00	0.25	0.00	0.00	4.75	4.88
Session Total	0	0	41	0	6	2	0	1	50	52.00
Session Average	0.00	0.00	5.13	0.00	0.75	0.25	0.00	0.13	6.25	6.50

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 13.1: Left from A595 Loop Road North to Victoria Road								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	1	0	0	0	0	0	1	1.00
1600 - 1615	0	0	9	0	0	0	0	0	9	9.00
1615 - 1630	0	0	6	0	0	0	0	0	6	6.00
1630 - 1645	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	0	0	25	0	0	0	0	0	25	25.00
Hourly Average	0.00	0.00	6.25	0.00	0.00	0.00	0.00	0.00	6.25	6.25
1645 - 1700	0	0	8	0	1	0	0	0	9	9.00
1700 - 1715	0	0	10	0	0	0	0	0	10	10.00
1715 - 1730	0	0	10	0	1	0	0	0	11	11.00
1730 - 1745	0	0	10	0	1	0	0	0	11	11.00
Hourly Total	0	0	38	0	3	0	0	0	41	41.00
Hourly Average	0.00	0.00	9.50	0.00	0.75	0.00	0.00	0.00	10.25	10.25
1745 - 1800	0	0	8	1	0	0	0	0	9	9.00
1800 - 1815	0	0	7	0	0	0	0	0	7	7.00
1/2 Hourly Total	0	0	15	1	0	0	0	0	16	16.00
1/2 Hourly Average	0.00	0.00	7.50	0.50	0.00	0.00	0.00	0.00	8.00	8.00
Session Total	0	0	78	1	3	0	0	0	82	82.00
Session Average	0.00	0.00	7.80	0.10	0.30	0.00	0.00	0.00	8.20	8.20

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 13.2: Southbound from A595 Loop Road North to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	3	151	0	18	8	5	0	186	193.90
0745 - 0800	0	0	140	0	18	2	3	0	163	167.90
0800 - 0815	0	1	123	0	19	6	4	0	153	160.60
0815 - 0830	0	2	109	1	28	4	6	0	150	158.60
Hourly Total	1	6	523	1	83	20	18	0	652	681.00
Hourly Average	0.25	1.50	130.75	0.25	20.75	5.00	4.50	0.00	163.00	170.25
0830 - 0845	1	1	112	0	26	9	5	2	156	167.60
0845 - 0900	0	0	113	1	26	6	6	1	153	164.80
0900 - 0915	0	0	111	1	16	5	6	0	139	149.30
0915 - 0930	0	0	92	0	25	14	5	0	136	149.50
Hourly Total	1	1	428	2	93	34	22	3	584	631.20
Hourly Average	0.25	0.25	107.00	0.50	23.25	8.50	5.50	0.75	146.00	157.80
Session Total	2	7	951	3	176	54	40	3	1236	1312.20
Session Average	0.25	0.88	118.88	0.38	22.00	6.75	5.00	0.38	154.50	164.03

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 13.2: Southbound from A595 Loop Road North to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	82	0	16	2	0	0	100	101.00
1600 - 1615	0	1	115	1	10	2	2	3	134	140.00
1615 - 1630	0	3	150	1	9	0	1	4	168	171.50
1630 - 1645	0	1	138	0	16	4	0	1	160	162.40
Hourly Total	0	5	485	2	51	8	3	8	562	574.90
Hourly Average	0.00	1.25	121.25	0.50	12.75	2.00	0.75	2.00	140.50	143.73
1645 - 1700	0	2	160	0	24	2	0	0	188	187.80
1700 - 1715	0	0	132	1	13	1	1	2	150	153.80
1715 - 1730	0	0	163	0	10	0	1	0	174	175.30
1730 - 1745	0	1	119	0	7	2	0	1	130	131.40
Hourly Total	0	3	574	1	54	5	2	3	642	648.30
Hourly Average	0.00	0.75	143.50	0.25	13.50	1.25	0.50	0.75	160.50	162.08
1745 - 1800	0	1	130	0	6	0	1	0	138	138.70
1800 - 1815	0	1	145	0	8	2	0	1	157	158.40
1/2 Hourly Total	0	2	275	0	14	2	1	1	295	297.10
1/2 Hourly Average	0.00	1.00	137.50	0.00	7.00	1.00	0.50	0.50	147.50	148.55
Session Total	0	10	1334	3	119	15	6	12	1499	1520.30
Session Average	0.00	1.00	133.40	0.30	11.90	1.50	0.60	1.20	149.90	152.03

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 13.3: Left from Victoria Road to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	1	15	0	0	0	0	0	16	15.40
0745 - 0800	0	0	16	0	1	0	0	0	17	17.00
0800 - 0815	0	0	10	0	0	0	0	0	10	10.00
0815 - 0830	0	0	4	0	1	1	0	0	6	6.50
Hourly Total	0	1	45	0	2	1	0	0	49	48.90
Hourly Average	0.00	0.25	11.25	0.00	0.50	0.25	0.00	0.00	12.25	12.23
0830 - 0845	0	0	10	0	1	0	0	0	11	11.00
0845 - 0900	0	0	11	0	0	0	0	0	11	11.00
0900 - 0915	0	0	17	0	2	0	0	1	20	21.00
0915 - 0930	0	0	10	0	0	0	0	0	10	10.00
Hourly Total	0	0	48	0	3	0	0	1	52	53.00
Hourly Average	0.00	0.00	12.00	0.00	0.75	0.00	0.00	0.25	13.00	13.25
Session Total	0	1	93	0	5	1	0	1	101	101.90
Session Average	0.00	0.13	11.63	0.00	0.63	0.13	0.00	0.13	12.63	12.74

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 13.3: Left from Victoria Road to A595 Loop Road South								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	19	0	2	0	0	2	23	25.00
1600 - 1615	0	0	19	0	1	1	0	0	21	21.50
1615 - 1630	0	0	28	1	2	0	0	1	32	33.00
1630 - 1645	0	0	26	0	1	0	0	0	27	27.00
Hourly Total	0	0	92	1	6	1	0	3	103	106.50
Hourly Average	0.00	0.00	23.00	0.25	1.50	0.25	0.00	0.75	25.75	26.63
1645 - 1700	0	0	35	0	2	0	0	0	37	37.00
1700 - 1715	0	1	30	0	1	0	0	0	32	31.40
1715 - 1730	0	1	24	0	1	0	0	0	26	25.40
1730 - 1745	0	0	28	0	0	0	0	0	28	28.00
Hourly Total	0	2	117	0	4	0	0	0	123	121.80
Hourly Average	0.00	0.50	29.25	0.00	1.00	0.00	0.00	0.00	30.75	30.45
1745 - 1800	0	0	28	0	1	1	0	0	30	30.50
1800 - 1815	0	0	10	1	0	0	0	0	11	11.00
1/2 Hourly Total	0	0	38	1	1	1	0	0	41	41.50
1/2 Hourly Average	0.00	0.00	19.00	0.50	0.50	0.50	0.00	0.00	20.50	20.75
Session Total	0	2	247	2	11	2	0	3	267	269.80
Session Average	0.00	0.20	24.70	0.20	1.10	0.20	0.00	0.30	26.70	26.98

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 13.4: Right from Victoria Road to A595 Loop Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	2	0	2	0	0	0	4	4.00
0745 - 0800	0	0	5	0	0	0	0	0	5	5.00
0800 - 0815	0	0	3	0	0	0	0	0	3	3.00
0815 - 0830	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	14	0	2	0	0	0	16	16.00
Hourly Average	0.00	0.00	3.50	0.00	0.50	0.00	0.00	0.00	4.00	4.00
0830 - 0845	0	0	6	0	2	0	0	0	8	8.00
0845 - 0900	0	0	4	0	0	0	0	0	4	4.00
0900 - 0915	0	0	8	0	1	0	0	0	9	9.00
0915 - 0930	0	0	2	0	1	0	1	0	4	5.30
Hourly Total	0	0	20	0	4	0	1	0	25	26.30
Hourly Average	0.00	0.00	5.00	0.00	1.00	0.00	0.25	0.00	6.25	6.58
Session Total	0	0	34	0	6	0	1	0	41	42.30
Session Average	0.00	0.00	4.25	0.00	0.75	0.00	0.13	0.00	5.13	5.29

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 13.4: Right from Victoria Road to A595 Loop Road North								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	3	0	1	0	0	0	4	4.00
1600 - 1615	0	0	8	0	0	0	0	0	8	8.00
1615 - 1630	0	0	8	0	2	0	0	0	10	10.00
1630 - 1645	0	0	4	0	3	0	0	0	7	7.00
Hourly Total	0	0	23	0	6	0	0	0	29	29.00
Hourly Average	0.00	0.00	5.75	0.00	1.50	0.00	0.00	0.00	7.25	7.25
1645 - 1700	0	0	12	0	0	0	0	0	12	12.00
1700 - 1715	0	0	9	0	1	0	0	0	10	10.00
1715 - 1730	0	0	4	0	0	0	0	0	4	4.00
1730 - 1745	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	0	0	34	0	1	0	0	0	35	35.00
Hourly Average	0.00	0.00	8.50	0.00	0.25	0.00	0.00	0.00	8.75	8.75
1745 - 1800	0	0	13	0	0	0	0	0	13	13.00
1800 - 1815	0	0	4	0	0	0	0	0	4	4.00
1/2 Hourly Total	0	0	17	0	0	0	0	0	17	17.00
1/2 Hourly Average	0.00	0.00	8.50	0.00	0.00	0.00	0.00	0.00	8.50	8.50
Session Total	0	0	74	0	7	0	0	0	81	81.00
Session Average	0.00	0.00	7.40	0.00	0.70	0.00	0.00	0.00	8.10	8.10

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 13.5: Northbound from A595 Loop Road South to A595 Loop Road North								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	123	0	11	4	0	0	138	140.00
0745 - 0800	0	1	150	1	28	5	0	5	190	196.90
0800 - 0815	0	2	150	0	13	3	2	4	174	180.90
0815 - 0830	0	0	137	0	15	4	1	4	161	168.30
Hourly Total	0	3	560	1	67	16	3	13	663	686.10
Hourly Average	0.00	0.75	140.00	0.25	16.75	4.00	0.75	3.25	165.75	171.53
0830 - 0845	0	0	191	1	19	3	0	1	215	217.50
0845 - 0900	0	1	151	1	12	3	1	0	169	171.20
0900 - 0915	0	0	125	2	21	4	6	1	159	169.80
0915 - 0930	0	0	95	3	10	5	2	1	116	122.10
Hourly Total	0	1	562	7	62	15	9	3	659	680.60
Hourly Average	0.00	0.25	140.50	1.75	15.50	3.75	2.25	0.75	164.75	170.15
Session Total	0	4	1122	8	129	31	12	16	1322	1366.70
Session Average	0.00	0.50	140.25	1.00	16.13	3.88	1.50	2.00	165.25	170.84

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 13.5: Northbound from A595 Loop Road South to A595 Loop Road North								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	2	3	145	1	26	4	3	1	185	188.50
1600 - 1615	4	5	142	1	16	4	2	1	175	174.40
1615 - 1630	3	4	148	1	18	5	1	0	180	179.00
1630 - 1645	2	3	164	1	14	3	3	2	192	196.00
Hourly Total	11	15	599	4	74	16	9	4	732	737.90
Hourly Average	2.75	3.75	149.75	1.00	18.50	4.00	2.25	1.00	183.00	184.48
1645 - 1700	1	0	158	1	10	3	0	0	173	173.70
1700 - 1715	1	1	167	1	19	3	3	0	195	199.00
1715 - 1730	1	2	143	1	10	3	0	3	163	165.50
1730 - 1745	1	1	164	1	8	2	3	1	181	185.50
Hourly Total	4	4	632	4	47	11	6	4	712	723.70
Hourly Average	1.00	1.00	158.00	1.00	11.75	2.75	1.50	1.00	178.00	180.93
1745 - 1800	0	1	156	1	12	1	1	1	173	175.20
1800 - 1815	0	1	153	1	11	0	0	0	166	165.40
1/2 Hourly Total	0	2	309	2	23	1	1	1	339	340.60
1/2 Hourly Average	0.00	1.00	154.50	1.00	11.50	0.50	0.50	0.50	169.50	170.30
Session Total	15	21	1540	10	144	28	16	9	1783	1802.20
Session Average	1.50	2.10	154.00	1.00	14.40	2.80	1.60	0.90	178.30	180.22

Whitehaven, Cumbria
Classified Junction Count

Site 13 of 14
A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 13.6: Right from A595 Loop Road South to Victoria Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	4	0	1	0	0	0	5	5.00
0745 - 0800	0	0	13	1	0	1	0	0	15	15.50
0800 - 0815	0	0	9	0	1	0	0	0	10	10.00
0815 - 0830	0	0	14	0	1	0	0	0	15	15.00
Hourly Total	0	0	40	1	3	1	0	0	45	45.50
Hourly Average	0.00	0.00	10.00	0.25	0.75	0.25	0.00	0.00	11.25	11.38
0830 - 0845	0	0	33	0	3	0	0	0	36	36.00
0845 - 0900	0	0	17	0	0	0	0	0	17	17.00
0900 - 0915	0	0	13	0	0	0	0	0	13	13.00
0915 - 0930	0	0	6	0	3	0	0	0	9	9.00
Hourly Total	0	0	69	0	6	0	0	0	75	75.00
Hourly Average	0.00	0.00	17.25	0.00	1.50	0.00	0.00	0.00	18.75	18.75
Session Total	0	0	109	1	9	1	0	0	120	120.50
Session Average	0.00	0.00	13.63	0.13	1.13	0.13	0.00	0.00	15.00	15.06

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 13.6: Right from A595 Loop Road South to Victoria Road								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	7	0	0	0	0	0	7	7.00
1600 - 1615	1	0	15	0	2	0	0	0	18	17.20
1615 - 1630	0	0	13	0	0	0	0	0	13	13.00
1630 - 1645	1	0	16	0	2	0	0	0	19	18.20
Hourly Total	2	0	51	0	4	0	0	0	57	55.40
Hourly Average	0.50	0.00	12.75	0.00	1.00	0.00	0.00	0.00	14.25	13.85
1645 - 1700	0	2	22	0	2	0	0	0	26	24.80
1700 - 1715	0	0	18	0	0	0	0	0	18	18.00
1715 - 1730	0	0	22	0	0	0	0	0	22	22.00
1730 - 1745	0	0	23	0	1	0	0	0	24	24.00
Hourly Total	0	2	85	0	3	0	0	0	90	88.80
Hourly Average	0.00	0.50	21.25	0.00	0.75	0.00	0.00	0.00	22.50	22.20
1745 - 1800	0	0	13	0	1	0	0	0	14	14.00
1800 - 1815	0	0	11	0	2	0	0	0	13	13.00
1/2 Hourly Total	0	0	24	0	3	0	0	0	27	27.00
1/2 Hourly Average	0.00	0.00	12.00	0.00	1.50	0.00	0.00	0.00	13.50	13.50
Session Total	2	2	160	0	10	0	0	0	174	171.20
Session Average	0.20	0.20	16.00	0.00	1.00	0.00	0.00	0.00	17.40	17.12

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 14.1: Left from A595 (North) to Rosehill								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	42	0	10	0	1	3	56	60.30
0745 - 0800	0	0	39	0	7	0	2	1	49	52.60
0800 - 0815	0	0	46	0	6	3	1	0	56	58.80
0815 - 0830	0	0	38	0	5	1	3	0	47	51.40
Hourly Total	0	0	165	0	28	4	7	4	208	223.10
Hourly Average	0.00	0.00	41.25	0.00	7.00	1.00	1.75	1.00	52.00	55.78
0830 - 0845	0	0	28	0	5	3	8	1	45	57.90
0845 - 0900	0	0	29	0	9	0	1	2	41	44.30
0900 - 0915	0	0	30	0	5	1	2	0	38	41.10
0915 - 0930	0	0	23	0	4	3	2	0	32	36.10
Hourly Total	0	0	110	0	23	7	13	3	156	179.40
Hourly Average	0.00	0.00	27.50	0.00	5.75	1.75	3.25	0.75	39.00	44.85
Session Total	0	0	275	0	51	11	20	7	364	402.50
Session Average	0.00	0.00	34.38	0.00	6.38	1.38	2.50	0.88	45.50	50.31

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 14.1: Left from A595 (North) to Rosehill								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	36	0	4	1	1	0	42	43.80
1600 - 1615	0	0	39	0	5	0	4	1	49	55.20
1615 - 1630	0	0	35	0	2	0	4	0	41	46.20
1630 - 1645	0	0	38	0	3	2	2	0	45	48.60
Hourly Total	0	0	148	0	14	3	11	1	177	193.80
Hourly Average	0.00	0.00	37.00	0.00	3.50	0.75	2.75	0.25	44.25	48.45
1645 - 1700	0	1	44	0	3	0	1	0	49	49.70
1700 - 1715	0	0	47	0	5	2	0	0	54	55.00
1715 - 1730	0	0	39	0	5	0	0	0	44	44.00
1730 - 1745	0	0	45	0	3	1	0	0	49	49.50
Hourly Total	0	1	175	0	16	3	1	0	196	198.20
Hourly Average	0.00	0.25	43.75	0.00	4.00	0.75	0.25	0.00	49.00	49.55
1745 - 1800	0	0	40	0	1	0	0	1	42	43.00
1800 - 1815	0	1	36	0	3	1	0	0	41	40.90
1/2 Hourly Total	0	1	76	0	4	1	0	1	83	83.90
1/2 Hourly Average	0.00	0.50	38.00	0.00	2.00	0.50	0.00	0.50	41.50	41.95
Session Total	0	2	399	0	34	7	12	2	456	475.90
Session Average	0.00	0.20	39.90	0.00	3.40	0.70	1.20	0.20	45.60	47.59

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 14.2: Left from A595 (North) to A595 (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	1	2	247	0	34	5	7	2	298	309.60
0745 - 0800	0	1	254	1	37	7	3	4	307	317.80
0800 - 0815	0	1	227	0	40	6	5	1	280	289.90
0815 - 0830	0	2	210	0	57	15	4	1	289	301.50
Hourly Total	1	6	938	1	168	33	19	8	1174	1218.80
Hourly Average	0.25	1.50	234.50	0.25	42.00	8.25	4.75	2.00	293.50	304.70
0830 - 0845	0	0	191	2	53	7	8	3	264	280.90
0845 - 0900	0	0	208	3	40	10	4	4	269	283.20
0900 - 0915	0	0	183	3	44	9	4	3	246	258.70
0915 - 0930	0	0	141	1	37	16	6	3	204	222.80
Hourly Total	0	0	723	9	174	42	22	13	983	1045.60
Hourly Average	0.00	0.00	180.75	2.25	43.50	10.50	5.50	3.25	245.75	261.40
Session Total	1	6	1661	10	342	75	41	21	2157	2264.40
Session Average	0.13	0.75	207.63	1.25	42.75	9.38	5.13	2.63	269.63	283.05

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 14.2: Left from A595 (North) to A595 (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	2	1	164	1	18	3	1	2	192	194.60
1600 - 1615	0	4	214	3	24	5	2	2	254	258.70
1615 - 1630	1	5	237	1	24	1	1	7	277	282.00
1630 - 1645	0	4	236	1	44	2	0	1	288	287.60
Hourly Total	3	14	851	6	110	11	4	12	1011	1022.90
Hourly Average	0.75	3.50	212.75	1.50	27.50	2.75	1.00	3.00	252.75	255.73
1645 - 1700	0	0	253	2	27	4	1	3	290	296.30
1700 - 1715	1	0	222	1	20	1	1	1	247	249.00
1715 - 1730	0	0	248	2	17	2	1	3	273	278.30
1730 - 1745	0	1	231	0	15	2	1	1	251	253.70
Hourly Total	1	1	954	5	79	9	4	8	1061	1077.30
Hourly Average	0.25	0.25	238.50	1.25	19.75	2.25	1.00	2.00	265.25	269.33
1745 - 1800	1	1	199	1	12	2	3	2	221	226.50
1800 - 1815	0	2	195	0	17	1	1	3	219	222.60
1/2 Hourly Total	1	3	394	1	29	3	4	5	440	449.10
1/2 Hourly Average	0.50	1.50	197.00	0.50	14.50	1.50	2.00	2.50	220.00	224.55
Session Total	5	18	2199	12	218	23	12	25	2512	2549.30
Session Average	0.50	1.80	219.90	1.20	21.80	2.30	1.20	2.50	251.20	254.93

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 14.3: Left from Rosehill to A595 (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	1	0	0	0	0	0	1	1.00
0745 - 0800	0	0	5	0	1	0	0	0	6	6.00
0800 - 0815	0	0	7	0	1	0	0	0	8	8.00
0815 - 0830	0	0	7	0	1	0	0	0	8	8.00
Hourly Total	0	0	20	0	3	0	0	0	23	23.00
Hourly Average	0.00	0.00	5.00	0.00	0.75	0.00	0.00	0.00	5.75	5.75
0830 - 0845	0	0	13	0	0	0	0	0	13	13.00
0845 - 0900	0	0	13	0	0	1	0	0	14	14.50
0900 - 0915	0	0	8	0	2	0	1	0	11	12.30
0915 - 0930	0	0	6	0	1	0	0	0	7	7.00
Hourly Total	0	0	40	0	3	1	1	0	45	46.80
Hourly Average	0.00	0.00	10.00	0.00	0.75	0.25	0.25	0.00	11.25	11.70
Session Total	0	0	60	0	6	1	1	0	68	69.80
Session Average	0.00	0.00	7.50	0.00	0.75	0.13	0.13	0.00	8.50	8.73

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 14.3: Left from Rosehill to A595 (South)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	1	10	0	2	0	0	0	13	12.40
1600 - 1615	0	0	9	0	1	0	0	0	10	10.00
1615 - 1630	0	0	11	0	4	0	0	0	15	15.00
1630 - 1645	0	0	12	1	0	0	0	0	13	13.00
Hourly Total	0	1	42	1	7	0	0	0	51	50.40
Hourly Average	0.00	0.25	10.50	0.25	1.75	0.00	0.00	0.00	12.75	12.60
1645 - 1700	0	0	14	0	0	0	0	0	14	14.00
1700 - 1715	0	0	11	0	1	0	0	0	12	12.00
1715 - 1730	0	0	8	0	2	0	0	0	10	10.00
1730 - 1745	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	0	39	0	3	0	0	0	42	42.00
Hourly Average	0.00	0.00	9.75	0.00	0.75	0.00	0.00	0.00	10.50	10.50
1745 - 1800	0	0	5	0	1	0	0	0	6	6.00
1800 - 1815	0	0	6	0	0	0	0	0	6	6.00
1/2 Hourly Total	0	0	11	0	1	0	0	0	12	12.00
1/2 Hourly Average	0.00	0.00	5.50	0.00	0.50	0.00	0.00	0.00	6.00	6.00
Session Total	0	1	92	1	11	0	0	0	105	104.40
Session Average	0.00	0.10	9.20	0.10	1.10	0.00	0.00	0.00	10.50	10.44

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 14.4: Right from Rosehill to A595 (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	2	0	1	0	1	0	4	5.30
0745 - 0800	0	0	2	0	0	0	0	0	2	2.00
0800 - 0815	0	0	1	0	2	0	1	0	4	5.30
0815 - 0830	0	0	1	0	1	1	1	0	4	5.80
Hourly Total	0	0	6	0	4	1	3	0	14	18.40
Hourly Average	0.00	0.00	1.50	0.00	1.00	0.25	0.75	0.00	3.50	4.60
0830 - 0845	0	0	4	0	0	0	1	0	5	6.30
0845 - 0900	0	0	3	0	2	1	2	0	8	11.10
0900 - 0915	0	0	3	0	1	1	1	0	6	7.80
0915 - 0930	0	0	6	0	1	0	1	0	8	9.30
Hourly Total	0	0	16	0	4	2	5	0	27	34.50
Hourly Average	0.00	0.00	4.00	0.00	1.00	0.50	1.25	0.00	6.75	8.63
Session Total	0	0	22	0	8	3	8	0	41	52.90
Session Average	0.00	0.00	2.75	0.00	1.00	0.38	1.00	0.00	5.13	6.61

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 14.4: Right from Rosehill to A595 (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	5	0	1	0	0	0	6	6.00
1600 - 1615	0	0	2	0	0	0	0	1	3	4.00
1615 - 1630	0	0	1	0	2	0	1	0	4	5.30
1630 - 1645	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	9	0	3	0	1	1	14	16.30
Hourly Average	0.00	0.00	2.25	0.00	0.75	0.00	0.25	0.25	3.50	4.08
1645 - 1700	0	0	2	0	1	0	1	0	4	5.30
1700 - 1715	0	0	10	0	4	0	1	0	15	16.30
1715 - 1730	0	0	1	0	3	0	0	0	4	4.00
1730 - 1745	0	0	8	0	0	0	0	0	8	8.00
Hourly Total	0	0	21	0	8	0	2	0	31	33.60
Hourly Average	0.00	0.00	5.25	0.00	2.00	0.00	0.50	0.00	7.75	8.40
1745 - 1800	0	0	0	0	0	0	0	0	0	0.00
1800 - 1815	0	0	7	0	0	0	0	0	7	7.00
1/2 Hourly Total	0	0	7	0	0	0	0	0	7	7.00
1/2 Hourly Average	0.00	0.00	3.50	0.00	0.00	0.00	0.00	0.00	3.50	3.50
Session Total	0	0	37	0	11	0	3	1	52	56.90
Session Average	0.00	0.00	3.70	0.00	1.10	0.00	0.30	0.10	5.20	5.69

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	Movement 14.5: Right from A595 (South) to A595 (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	165	0	35	4	1	4	209	216.30
0745 - 0800	0	1	218	1	44	6	1	5	276	284.70
0800 - 0815	0	2	209	0	51	3	4	5	274	284.50
0815 - 0830	0	0	231	1	31	3	3	5	274	284.40
Hourly Total	0	3	823	2	161	16	9	19	1033	1069.90
Hourly Average	0.00	0.75	205.75	0.50	40.25	4.00	2.25	4.75	258.25	267.48
0830 - 0845	1	0	234	1	26	7	1	3	273	280.00
0845 - 0900	0	2	208	0	21	5	2	1	239	243.90
0900 - 0915	2	0	201	0	21	8	9	4	245	263.10
0915 - 0930	0	0	161	0	22	10	2	2	197	206.60
Hourly Total	3	2	804	1	90	30	14	10	954	993.60
Hourly Average	0.75	0.50	201.00	0.25	22.50	7.50	3.50	2.50	238.50	248.40
Session Total	3	5	1627	3	251	46	23	29	1987	2063.50
Session Average	0.38	0.63	203.38	0.38	31.38	5.75	2.88	3.63	248.38	257.94

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	Movement 14.5: Right from A595 (South) to A595 (North)								Original Data	
	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	1	2	255	0	54	8	2	4	326	334.60
1600 - 1615	2	1	251	1	31	4	3	3	296	302.70
1615 - 1630	1	3	264	0	26	7	3	3	307	314.80
1630 - 1645	1	2	273	0	36	3	4	2	321	327.70
Hourly Total	5	8	1043	1	147	22	12	12	1250	1279.80
Hourly Average	1.25	2.00	260.75	0.25	36.75	5.50	3.00	3.00	312.50	319.95
1645 - 1700	0	1	280	0	22	4	2	3	312	319.00
1700 - 1715	0	0	269	0	28	7	3	2	309	318.40
1715 - 1730	0	2	275	0	25	1	2	2	307	310.90
1730 - 1745	0	0	262	0	17	4	1	3	287	293.30
Hourly Total	0	3	1086	0	92	16	8	10	1215	1241.60
Hourly Average	0.00	0.75	271.50	0.00	23.00	4.00	2.00	2.50	303.75	310.40
1745 - 1800	1	1	273	1	20	3	2	2	303	307.70
1800 - 1815	0	1	213	0	11	2	0	2	229	231.40
1/2 Hourly Total	1	2	486	1	31	5	2	4	532	539.10
1/2 Hourly Average	0.50	1.00	243.00	0.50	15.50	2.50	1.00	2.00	266.00	269.55
Session Total	6	13	2615	2	270	43	22	26	2997	3060.50
Session Average	0.60	1.30	261.50	0.20	27.00	4.30	2.20	2.60	299.70	306.05

Whitehaven, Cumbria
Classified Junction Count

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

	Movement 14.6: Right from A595 (South) to Rosehill								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0730 - 0745	0	0	6	0	0	0	0	0	6	6.00
0745 - 0800	0	0	7	0	0	0	0	0	7	7.00
0800 - 0815	0	0	5	0	2	0	0	0	7	7.00
0815 - 0830	0	0	10	0	1	0	0	1	12	13.00
Hourly Total	0	0	28	0	3	0	0	1	32	33.00
Hourly Average	0.00	0.00	7.00	0.00	0.75	0.00	0.00	0.25	8.00	8.25
0830 - 0845	0	0	15	0	1	0	0	0	16	16.00
0845 - 0900	0	0	10	0	2	0	0	0	12	12.00
0900 - 0915	0	0	6	0	0	0	0	0	6	6.00
0915 - 0930	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	35	0	3	0	0	0	38	38.00
Hourly Average	0.00	0.00	8.75	0.00	0.75	0.00	0.00	0.00	9.50	9.50
Session Total	0	0	63	0	6	0	0	1	70	71.00
Session Average	0.00	0.00	7.88	0.00	0.75	0.00	0.00	0.13	8.75	8.88

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

	Movement 14.6: Right from A595 (South) to Rosehill								Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
1545 - 1600	0	0	5	0	1	1	0	0	7	7.50
1600 - 1615	0	0	13	0	0	0	0	0	13	13.00
1615 - 1630	0	0	6	0	1	0	0	0	7	7.00
1630 - 1645	0	0	13	1	1	0	0	0	15	15.00
Hourly Total	0	0	37	1	3	1	0	0	42	42.50
Hourly Average	0.00	0.00	9.25	0.25	0.75	0.25	0.00	0.00	10.50	10.63
1645 - 1700	0	0	9	0	0	0	0	0	9	9.00
1700 - 1715	0	0	11	1	0	0	0	0	12	12.00
1715 - 1730	0	0	7	0	1	0	0	0	8	8.00
1730 - 1745	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	0	33	1	1	0	0	0	35	35.00
Hourly Average	0.00	0.00	8.25	0.25	0.25	0.00	0.00	0.00	8.75	8.75
1745 - 1800	0	0	9	0	2	0	0	0	11	11.00
1800 - 1815	0	0	9	0	1	0	0	0	10	10.00
1/2 Hourly Total	0	0	18	0	3	0	0	0	21	21.00
1/2 Hourly Average	0.00	0.00	9.00	0.00	1.50	0.00	0.00	0.00	10.50	10.50
Session Total	0	0	88	2	7	1	0	0	98	98.50
Session Average	0.00	0.00	8.80	0.20	0.70	0.10	0.00	0.00	9.80	9.85

Whitehaven, Cumbria
Queue Length Survey

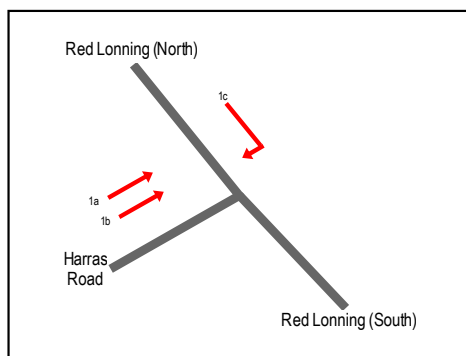
Site 1 of 14

Red Lonning (South)
Harras Road
Red Lonning (North)

Lat/Long
lat 54.548899° lon -3.563299°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	1a	1b	1c
0730 - 0735	0	1	0
0735 - 0740	0	2	0
0740 - 0745	0	1	0
0745 - 0750	0	1	0
0750 - 0755	0	3	0
0755 - 0800	0	0	0
0800 - 0805	0	1	0
0805 - 0810	0	1	0
0810 - 0815	0	2	0
0815 - 0820	0	1	0
0820 - 0825	0	3	0
0825 - 0830	0	1	0
Hourly Average	0.00	1.42	0.00
0830 - 0835	0	3	0
0835 - 0840	0	2	0
0840 - 0845	0	1	0
0845 - 0850	0	2	0
0850 - 0855	0	2	0
0855 - 0900	0	1	0
0900 - 0905	0	1	0
0905 - 0910	0	2	0
0910 - 0915	0	1	0
0915 - 0920	0	1	0
0920 - 0925	0	0	0
0925 - 0930	0	1	0
Hourly Average	0.00	1.42	0.00

Session Total	0.00	1.42	0.00

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	1a	1b	1c
1545 - 1550	0	2	0
1550 - 1555	0	2	1
1555 - 1600	0	2	2
1600 - 1605	0	2	0
1605 - 1610	0	2	0
1610 - 1615	0	3	1
1615 - 1620	0	2	0
1620 - 1625	0	4	2
1625 - 1630	0	1	1
1630 - 1635	0	3	0
1635 - 1640	0	3	1
1640 - 1645	0	1	0
Hourly Average	0.00	2.25	0.67
1645 - 1650	0	4	0
1650 - 1655	0	4	2
1655 - 1700	0	1	0
1700 - 1705	0	3	0
1705 - 1710	0	2	0
1710 - 1715	0	1	0
1715 - 1720	0	3	2
1720 - 1725	0	1	2
1725 - 1730	0	1	0
1730 - 1735	0	3	0
1735 - 1740	0	2	0
1740 - 1745	0	2	0
Hourly Average	0.00	2.25	0.50
1745 - 1750	0	1	0
1750 - 1755	0	2	0
1755 - 1800	0	1	0
1800 - 1805	0	2	0
1805 - 1810	0	2	0
1810 - 1815	0	2	0
1/2 Hourly Average	0.00	1.67	0.00

Session Total	0.00	2.13	0.47

Whitehaven, Cumbria
Queue Length Survey

Site 2 of 14

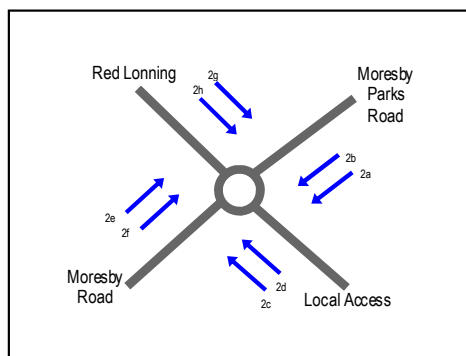
Moresby Parks Road
Local Access
Moresby Road
Red Lonning

Lat/Long
lat 54.545171° lon -3.554174°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)



TIME	2a	2b	2c	2d	2e	2f	2g	2h
0730 - 0735	2	0	0	0	0	0	0	0
0735 - 0740	1	0	0	0	0	0	0	0
0740 - 0745	3	0	0	0	1	0	0	1
0745 - 0750	0	0	0	0	0	0	0	3
0750 - 0755	0	0	0	0	0	0	0	3
0755 - 0800	0	0	0	0	0	0	0	0
0800 - 0805	3	0	0	0	0	0	0	0
0805 - 0810	0	0	0	0	0	0	0	2
0810 - 0815	0	0	0	0	2	0	0	2
0815 - 0820	0	0	0	0	0	0	1	2
0820 - 0825	2	0	0	0	2	0	1	3
0825 - 0830	5	0	0	0	1	0	1	3
Hourly Average	1.33	0.00	0.00	0.00	0.50	0.00	0.25	1.58
0830 - 0835	0	0	0	0	0	0	0	0
0835 - 0840	0	0	0	0	0	0	0	1
0840 - 0845	1	0	0	0	2	0	0	0
0845 - 0850	0	0	0	0	2	0	0	5
0850 - 0855	0	0	0	0	0	0	0	1
0855 - 0900	0	0	0	0	0	0	0	2
0900 - 0905	4	0	0	0	0	0	0	1
0905 - 0910	0	0	0	0	0	0	1	1
0910 - 0915	0	0	0	0	0	0	0	0
0915 - 0920	0	0	0	0	0	0	0	0
0920 - 0925	0	0	0	0	0	0	0	2
0925 - 0930	0	0	0	0	0	0	0	1
Hourly Average	0.42	0.00	0.00	0.00	0.33	0.00	0.08	1.17
Session Total	0.88	0.00	0.00	0.00	0.42	0.00	0.17	1.38

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	2a	2b	2c	2d	2e	2f	2g	2h
1545 - 1550	0	0	0	0	0	0	1	2
1550 - 1555	0	0	0	0	0	0	1	1
1555 - 1600	3	0	0	0	0	0	1	1
1600 - 1605	0	0	0	0	0	0	0	1
1605 - 1610	0	0	0	0	0	0	1	2
1610 - 1615	0	0	0	0	0	0	1	3
1615 - 1620	1	0	0	0	2	0	1	3
1620 - 1625	0	0	0	0	0	0	3	5
1625 - 1630	0	0	0	0	0	0	0	2
1630 - 1635	3	0	0	0	3	0	1	1
1635 - 1640	0	0	0	0	1	0	1	3
1640 - 1645	0	0	0	0	0	0	1	2
Hourly Average	0.58	0.00	0.00	0.00	0.50	0.00	1.00	2.17
1645 - 1650	0	0	0	0	0	0	0	3
1650 - 1655	0	0	0	0	0	0	1	4
1655 - 1700	0	0	0	0	0	0	0	1
1700 - 1705	0	0	0	0	0	0	0	1
1705 - 1710	0	0	0	0	0	0	0	2
1710 - 1715	0	0	0	0	0	0	0	5
1715 - 1720	0	0	0	0	3	0	0	2
1720 - 1725	0	0	0	0	0	0	1	2
1725 - 1730	0	0	0	0	1	0	0	1
1730 - 1735	0	0	0	0	0	0	0	1
1735 - 1740	0	0	0	0	0	0	1	2
1740 - 1745	0	0	0	0	3	0	0	2
Hourly Average	0.00	0.00	0.00	0.00	0.58	0.00	0.25	2.17
1745 - 1750	0	0	0	0	0	0	0	2
1750 - 1755	0	0	0	0	1	0	0	0
1755 - 1800	0	0	0	0	0	0	0	0
1800 - 1805	0	0	0	0	0	0	0	0
1805 - 1810	0	0	0	0	0	0	0	1
1810 - 1815	0	0	0	0	0	0	1	3
1/2 Hourly Average	0.00	0.00	0.00	0.00	0.17	0.00	0.17	1.00
Session Total	0.23	0.00	0.00	0.00	0.47	0.00	0.53	1.93

Whitehaven, Cumbria
Queue Length Survey

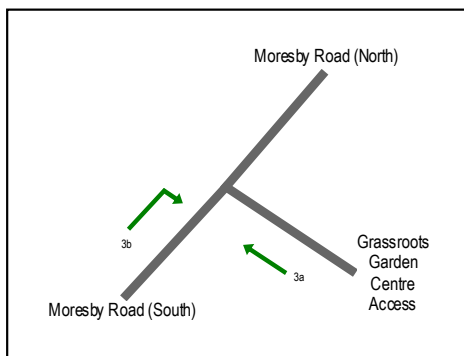
Site 3 of 14

Moresby Road (North)
Grassroots Garden Centre Access
Moresby Road (South)

Lat/Long
lat 54.543476° lon -3.557071°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	3a	3b
0730 - 0735	1	2
0735 - 0740	0	2
0740 - 0745	3	0
0745 - 0750	1	0
0750 - 0755	5	0
0755 - 0800	1	1
0800 - 0805	2	0
0805 - 0810	2	0
0810 - 0815	2	0
0815 - 0820	3	0
0820 - 0825	1	0
0825 - 0830	2	2
Hourly Average	1.92	0.58
0830 - 0835	4	0
0835 - 0840	3	0
0840 - 0845	6	1
0845 - 0850	3	3
0850 - 0855	1	3
0855 - 0900	2	0
0900 - 0905	3	0
0905 - 0910	3	0
0910 - 0915	1	0
0915 - 0920	1	0
0920 - 0925	1	0
0925 - 0930	1	0
Hourly Average	2.42	0.58

Session Total	2.17	0.58

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	3a	3b
1545 - 1550	1	0
1550 - 1555	3	0
1555 - 1600	4	0
1600 - 1605	2	0
1605 - 1610	6	0
1610 - 1615	5	0
1615 - 1620	6	0
1620 - 1625	2	2
1625 - 1630	4	0
1630 - 1635	3	3
1635 - 1640	6	4
1640 - 1645	5	0
Hourly Average	3.92	0.75
1645 - 1650	5	0
1650 - 1655	3	0
1655 - 1700	2	0
1700 - 1705	5	0
1705 - 1710	3	0
1710 - 1715	4	0
1715 - 1720	1	0
1720 - 1725	6	0
1725 - 1730	4	0
1730 - 1735	3	0
1735 - 1740	3	0
1740 - 1745	2	0
Hourly Average	3.42	0.00
1745 - 1750	2	0
1750 - 1755	3	0
1755 - 1800	1	0
1800 - 1805	2	1
1805 - 1810	1	0
1810 - 1815	1	1
1/2 Hourly Average	1.67	0.33

Session Total	3.27	0.37

Whitehaven, Cumbria
Queue Length Survey

Site 4 of 14

Red Lonning (North)
Red Lonning (South)
Caldbeck Road

Lat/Long

lat 54.543535° lon -3.561531°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	4a	4b
0730 - 0735	0	0
0735 - 0740	0	0
0740 - 0745	1	2
0745 - 0750	0	2
0750 - 0755	0	1
0755 - 0800	0	4
0800 - 0805	1	2
0805 - 0810	0	1
0810 - 0815	0	1
0815 - 0820	2	1
0820 - 0825	4	1
0825 - 0830	4	4
Hourly Average	1.00	1.58
0830 - 0835	8	4
0835 - 0840	6	5
0840 - 0845	5	5
0845 - 0850	1	1
0850 - 0855	0	0
0855 - 0900	0	0
0900 - 0905	0	0
0905 - 0910	1	0
0910 - 0915	0	1
0915 - 0920	0	1
0920 - 0925	0	0
0925 - 0930	0	0
Hourly Average	1.75	1.42

Session Total	1.38	1.50

Date

Wednesday 21 February 2018

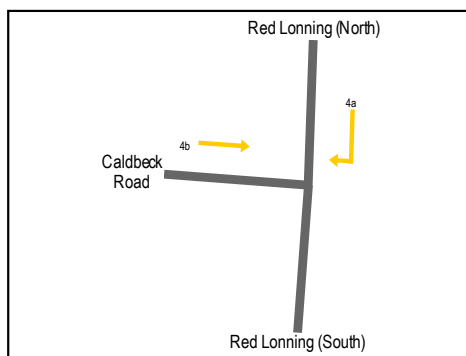
Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	4a	4b
1545 - 1550	1	2
1550 - 1555	1	1
1555 - 1600	4	3
1600 - 1605	1	2
1605 - 1610	2	2
1610 - 1615	2	5
1615 - 1620	2	2
1620 - 1625	1	1
1625 - 1630	1	1
1630 - 1635	1	1
1635 - 1640	0	1
1640 - 1645	2	4
Hourly Average	1.50	2.08
1645 - 1650	0	4
1650 - 1655	0	2
1655 - 1700	1	1
1700 - 1705	0	1
1705 - 1710	1	1
1710 - 1715	0	1
1715 - 1720	0	1
1720 - 1725	0	1
1725 - 1730	1	0
1730 - 1735	1	1
1735 - 1740	0	1
1740 - 1745	0	2
Hourly Average	0.33	1.33
1745 - 1750	0	1
1750 - 1755	0	1
1755 - 1800	0	2
1800 - 1805	3	1
1805 - 1810	0	0
1810 - 1815	0	2
1/2 Hourly Average	0.50	1.17

Session Total	0.83	1.60



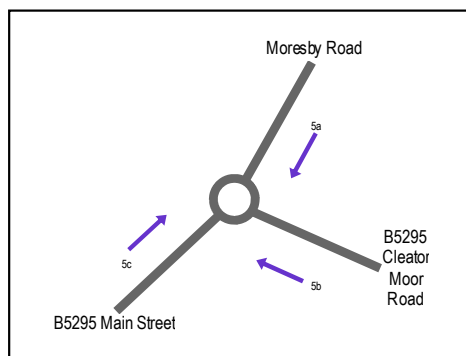
Whitehaven, Cumbria
Queue Length Survey

Site 5 of 14
Moresby Road
B5295 Cleator Moor Road
B5295 Main Street

Lat/Long
lat 54.540325° lon -3.561396°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	5a	5b	5c
0730 - 0735	2	3	2
0735 - 0740	5	2	3
0740 - 0745	6	2	3
0745 - 0750	7	6	3
0750 - 0755	6	10	3
0755 - 0800	9	1	5
0800 - 0805	5	1	2
0805 - 0810	6	4	3
0810 - 0815	8	3	6
0815 - 0820	9	5	7
0820 - 0825	8	6	9
0825 - 0830	4	5	8
Hourly Average	6.25	4.00	4.50
0830 - 0835	4	3	7
0835 - 0840	4	2	5
0840 - 0845	6	5	6
0845 - 0850	5	3	4
0850 - 0855	1	2	5
0855 - 0900	1	5	3
0900 - 0905	8	2	1
0905 - 0910	0	1	1
0910 - 0915	3	3	3
0915 - 0920	1	2	1
0920 - 0925	2	2	1
0925 - 0930	2	3	1
Hourly Average	3.08	2.75	3.17

Session Total	4.67	3.38	3.83

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	5a	5b	5c
1545 - 1550	3	3	4
1550 - 1555	4	4	3
1555 - 1600	5	3	5
1600 - 1605	4	2	3
1605 - 1610	3	2	6
1610 - 1615	5	7	8
1615 - 1620	5	4	6
1620 - 1625	8	8	6
1625 - 1630	3	2	5
1630 - 1635	5	4	9
1635 - 1640	4	8	3
1640 - 1645	6	6	7
Hourly Average	4.58	4.42	5.42
1645 - 1650	7	4	4
1650 - 1655	3	7	5
1655 - 1700	4	5	8
1700 - 1705	4	4	4
1705 - 1710	6	2	7
1710 - 1715	6	4	6
1715 - 1720	2	8	3
1720 - 1725	4	4	6
1725 - 1730	5	5	7
1730 - 1735	6	6	3
1735 - 1740	3	3	7
1740 - 1745	5	2	5
Hourly Average	4.58	4.50	5.42
1745 - 1750	6	5	7
1750 - 1755	2	3	5
1755 - 1800	0	3	5
1800 - 1805	1	2	1
1805 - 1810	3	6	2
1810 - 1815	1	5	1
1/2 Hourly Average	2.17	4.00	3.50

Session Total	4.10	4.37	5.03

Whitehaven, Cumbria
Queue Length Survey

Site 6 of 14

B5295 Main Street (North)
B5295 Main Street (South)
Thornton Road

Lat/Long

lat 54.539837° lon -3.562212°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	6a	6b	6c
0730 - 0735	0	0	1
0735 - 0740	4	0	4
0740 - 0745	0	1	1
0745 - 0750	0	1	1
0750 - 0755	0	1	1
0755 - 0800	1	1	1
0800 - 0805	0	1	2
0805 - 0810	0	1	2
0810 - 0815	1	0	2
0815 - 0820	0	1	2
0820 - 0825	2	2	4
0825 - 0830	1	2	2
Hourly Average	0.75	0.92	1.92
0830 - 0835	0	0	1
0835 - 0840	2	2	5
0840 - 0845	1	2	5
0845 - 0850	4	2	5
0850 - 0855	2	0	2
0855 - 0900	2	1	4
0900 - 0905	3	0	2
0905 - 0910	0	0	1
0910 - 0915	0	0	1
0915 - 0920	0	0	3
0920 - 0925	0	1	1
0925 - 0930	0	1	1
Hourly Average	1.17	0.75	2.58
Session Total	0.96	0.83	2.25

Date

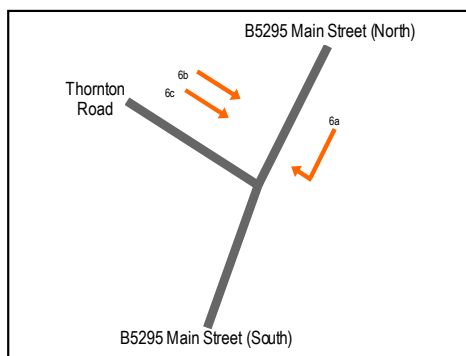
Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	6a	6b	6c
1545 - 1550	2	1	3
1550 - 1555	2	0	1
1555 - 1600	2	0	0
1600 - 1605	2	1	1
1605 - 1610	3	1	2
1610 - 1615	3	1	0
1615 - 1620	4	1	2
1620 - 1625	0	1	2
1625 - 1630	0	2	4
1630 - 1635	1	1	2
1635 - 1640	5	1	3
1640 - 1645	2	1	4
Hourly Average	2.17	0.92	2.00
1645 - 1650	3	2	4
1650 - 1655	3	1	4
1655 - 1700	1	0	1
1700 - 1705	1	0	1
1705 - 1710	1	2	1
1710 - 1715	2	0	2
1715 - 1720	3	1	1
1720 - 1725	0	1	1
1725 - 1730	1	2	1
1730 - 1735	2	0	1
1735 - 1740	5	1	1
1740 - 1745	0	1	2
Hourly Average	1.83	0.92	1.67
1745 - 1750	2	0	3
1750 - 1755	2	1	1
1755 - 1800	3	1	1
1800 - 1805	1	1	2
1805 - 1810	0	1	1
1810 - 1815	0	1	1
1/2 Hourly Average	1.33	0.83	1.50
Session Total	1.87	0.90	1.77



Whitehaven, Cumbria
Queue Length Survey

Site 7 of 14

B5295 Main Street (East)
B5295 Egremont Road
B5295 Main Street (North)

Lat/Long

lat 54.536189° lon -3.568600°

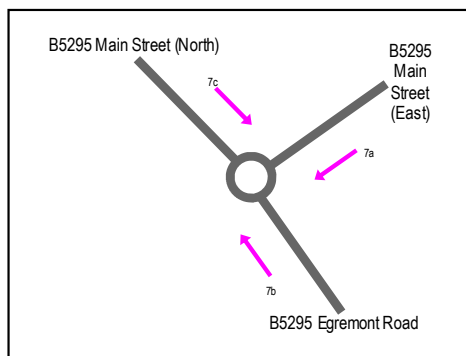
Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)



TIME	7a	7b	7c
0730 - 0735	0	1	0
0735 - 0740	0	0	0
0740 - 0745	0	1	0
0745 - 0750	0	2	0
0750 - 0755	0	0	0
0755 - 0800	0	1	0
0800 - 0805	0	0	0
0805 - 0810	2	3	0
0810 - 0815	3	3	2
0815 - 0820	1	4	4
0820 - 0825	3	0	3
0825 - 0830	2	4	2
Hourly Average	0.92	1.58	0.92
0830 - 0835	0	5	1
0835 - 0840	0	4	3
0840 - 0845	3	5	0
0845 - 0850	0	0	1
0850 - 0855	0	3	0
0855 - 0900	2	2	2
0900 - 0905	2	1	0
0905 - 0910	0	0	0
0910 - 0915	0	1	0
0915 - 0920	3	2	0
0920 - 0925	0	1	1
0925 - 0930	3	0	0
Hourly Average	1.08	2.00	0.67

Session Total	1.00	1.79	0.79

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	7a	7b	7c
1545 - 1550	0	1	0
1550 - 1555	0	2	3
1555 - 1600	0	1	3
1600 - 1605	0	1	2
1605 - 1610	0	1	3
1610 - 1615	4	4	0
1615 - 1620	2	4	1
1620 - 1625	0	0	0
1625 - 1630	0	0	3
1630 - 1635	2	4	0
1635 - 1640	0	0	3
1640 - 1645	3	1	2
Hourly Average	0.92	1.58	1.67
1645 - 1650	2	1	3
1650 - 1655	2	4	1
1655 - 1700	2	3	1
1700 - 1705	0	3	0
1705 - 1710	2	3	0
1710 - 1715	0	2	4
1715 - 1720	0	1	1
1720 - 1725	4	1	3
1725 - 1730	2	2	4
1730 - 1735	2	3	3
1735 - 1740	0	0	1
1740 - 1745	0	2	0
Hourly Average	1.33	2.08	1.75
1745 - 1750	3	5	0
1750 - 1755	0	0	0
1755 - 1800	0	2	3
1800 - 1805	3	2	1
1805 - 1810	2	0	1
1810 - 1815	1	2	2
1/2 Hourly Average	1.50	1.83	1.17

Session Total	1.20	1.83	1.60

Whitehaven, Cumbria
Queue Length Survey

Site 8 of 14
Homewood Road
A595 Egremont Road
A595 Hensingham Bypass
B5295 Egremont Road

Lat/Long
lat 54.530036° lon -3.569077°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

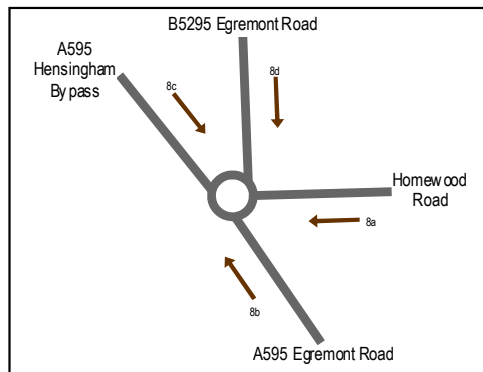
TIME	8a	8b	8c	8d
0730 - 0735	5	0	3	7
0735 - 0740	4	2	5	4
0740 - 0745	3	4	3	5
0745 - 0750	5	0	6	6
0750 - 0755	3	0	0	5
0755 - 0800	5	3	7	4
0800 - 0805	6	3	8	2
0805 - 0810	3	0	7	4
0810 - 0815	6	2	5	2
0815 - 0820	3	0	5	3
0820 - 0825	3	3	6	4
0825 - 0830	8	0	4	5
Hourly Average	4.50	1.42	4.92	4.25
0830 - 0835	5	0	5	5
0835 - 0840	4	4	8	3
0840 - 0845	7	3	7	6
0845 - 0850	6	0	5	4
0850 - 0855	5	0	3	3
0855 - 0900	5	0	0	4
0900 - 0905	5	5	5	5
0905 - 0910	3	0	3	1
0910 - 0915	3	3	5	2
0915 - 0920	2	4	0	0
0920 - 0925	4	4	3	2
0925 - 0930	3	5	0	0
Hourly Average	4.33	2.33	3.67	2.92
Session Total	4.42	1.88	4.29	3.58

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	8a	8b	8c	8d
1545 - 1550	5	3	5	1
1550 - 1555	4	4	7	0
1555 - 1600	3	3	2	4
1600 - 1605	7	4	5	2
1605 - 1610	5	5	6	2
1610 - 1615	4	7	7	2
1615 - 1620	6	6	8	2
1620 - 1625	4	5	6	4
1625 - 1630	4	4	5	3
1630 - 1635	7	5	5	2
1635 - 1640	5	7	4	3
1640 - 1645	8	6	7	5
Hourly Average	5.17	4.92	5.58	2.50
1645 - 1650	6	5	8	4
1650 - 1655	5	4	9	0
1655 - 1700	1	8	7	1
1700 - 1705	3	3	5	4
1705 - 1710	7	5	6	4
1710 - 1715	6	4	7	3
1715 - 1720	5	5	6	2
1720 - 1725	4	0	4	5
1725 - 1730	3	4	8	1
1730 - 1735	2	0	5	0
1735 - 1740	4	0	7	3
1740 - 1745	4	8	5	3
Hourly Average	4.17	3.83	6.42	2.50
1745 - 1750	5	3	9	2
1750 - 1755	3	0	6	2
1755 - 1800	1	4	7	0
1800 - 1805	5	0	4	3
1805 - 1810	2	3	7	2
1810 - 1815	3	3	8	3
1/2 Hourly Average	3.17	2.17	6.83	2.00
Session Total	4.37	3.93	6.17	2.40



Whitehaven, Cumbria
Queue Length Survey

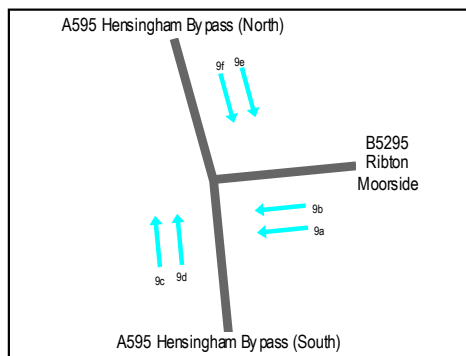
Site 9 of 14

B5295 Ribton Moorside
A595 Hensingham Bypass (South)
A595 Hensingham Bypass (North)

Lat/Long
lat 54.538145° lon -3.572216°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	9a	9b	9c	9d	9e	9f
0730 - 0735	0	7	2	1	0	5
0735 - 0740	0	8	3	2	0	8
0740 - 0745	0	6	1	3	0	6
0745 - 0750	1	10	2	8	0	4
0750 - 0755	0	9	5	7	0	8
0755 - 0800	0	5	4	3	0	2
0800 - 0805	1	5	3	5	0	9
0805 - 0810	0	10	5	5	0	10
0810 - 0815	1	5	1	7	0	4
0815 - 0820	1	12	5	6	0	8
0820 - 0825	0	9	4	7	3	7
0825 - 0830	0	8	3	5	0	6
Hourly Average	0.33	7.83	3.17	4.92	0.25	6.42
0830 - 0835	1	8	4	7	0	8
0835 - 0840	1	9	3	8	0	7
0840 - 0845	0	12	4	9	0	6
0845 - 0850	0	9	4	6	0	8
0850 - 0855	1	12	1	4	0	7
0855 - 0900	0	7	3	7	0	6
0900 - 0905	0	7	2	10	0	7
0905 - 0910	1	8	5	9	0	5
0910 - 0915	0	7	3	6	0	7
0915 - 0920	0	7	4	5	0	3
0920 - 0925	0	8	5	4	0	8
0925 - 0930	0	5	3	8	0	5
Hourly Average	0.33	8.25	3.42	6.92	0.00	6.42
Session Total	0.33	8.04	3.29	5.92	0.13	6.42

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	9a	9b	9c	9d	9e	9f
1545 - 1550	0	6	3	6	0	5
1550 - 1555	1	5	3	11	0	3
1555 - 1600	0	6	4	10	0	5
1600 - 1605	0	14	5	12	0	6
1605 - 1610	0	5	5	13	0	2
1610 - 1615	1	10	2	12	0	6
1615 - 1620	0	9	5	15	0	8
1620 - 1625	1	8	3	16	0	9
1625 - 1630	0	10	3	16	0	9
1630 - 1635	0	12	5	14	0	7
1635 - 1640	0	6	4	16	0	4
1640 - 1645	0	9	5	15	0	8
Hourly Average	0.25	8.33	3.92	13.00	0.00	6.00
1645 - 1650	1	10	2	16	0	5
1650 - 1655	0	7	5	12	0	7
1655 - 1700	0	10	3	8	0	8
1700 - 1705	0	8	0	7	0	9
1705 - 1710	1	10	4	8	0	6
1710 - 1715	0	5	3	7	0	7
1715 - 1720	0	6	5	5	0	5
1720 - 1725	0	12	3	7	0	6
1725 - 1730	0	9	2	10	0	7
1730 - 1735	0	7	1	6	0	5
1735 - 1740	0	5	1	7	0	6
1740 - 1745	0	12	3	8	0	3
Hourly Average	0.17	8.42	2.67	8.42	0.00	6.17
1745 - 1750	0	11	2	8	0	10
1750 - 1755	0	5	3	11	0	9
1755 - 1800	0	6	4	8	0	3
1800 - 1805	0	6	4	7	0	3
1805 - 1810	1	6	3	9	0	5
1810 - 1815	0	7	1	6	0	5
1/2 Hourly Average	0.17	6.83	2.83	8.17	0.00	5.83
Session Total	0.20	8.07	3.20	10.20	0.00	6.03

Whitehaven, Cumbria
Queue Length Survey

Site 10 of 14

A595 Hensingham Bypass
A5094 Inkerman Terrace
A595 Loop Road South

Lat/Long

lat 54.539670° lon -3.573300°

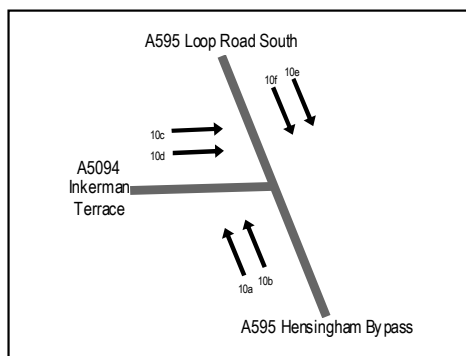
Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)



TIME	10a	10b	10c	10d	10e	10f
0730 - 0735	0	4	1	5	7	1
0735 - 0740	0	6	0	8	10	2
0740 - 0745	0	5	0	8	12	3
0745 - 0750	0	7	1	9	8	1
0750 - 0755	0	4	2	6	8	2
0755 - 0800	0	5	0	9	7	3
0800 - 0805	0	2	3	5	8	1
0805 - 0810	0	6	3	6	6	3
0810 - 0815	0	6	2	7	7	2
0815 - 0820	0	7	2	9	9	3
0820 - 0825	0	9	2	11	8	5
0825 - 0830	6	10	3	7	7	6
Hourly Average	0.50	5.92	1.58	7.50	8.08	2.67
0830 - 0835	7	8	3	10	12	8
0835 - 0840	4	7	3	11	10	7
0840 - 0845	5	8	2	9	9	6
0845 - 0850	2	7	2	8	10	5
0850 - 0855	0	4	3	7	8	2
0855 - 0900	2	5	0	10	7	2
0900 - 0905	6	8	2	5	9	1
0905 - 0910	0	3	2	6	7	1
0910 - 0915	1	5	1	5	10	3
0915 - 0920	0	5	2	11	11	0
0920 - 0925	2	2	0	8	10	1
0925 - 0930	1	6	2	9	12	4
Hourly Average	2.50	5.67	1.83	8.25	9.58	3.33

Session Total	1.50	5.79	1.71	7.88	8.83	3.00

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	10a	10b	10c	10d	10e	10f
1545 - 1550	7	0	0	12	7	5
1550 - 1555	3	12	3	11	8	5
1555 - 1600	4	10	2	10	9	5
1600 - 1605	0	9	2	9	6	2
1605 - 1610	0	10	2	11	6	4
1610 - 1615	0	8	0	9	12	3
1615 - 1620	1	11	2	10	8	8
1620 - 1625	0	12	2	12	10	9
1625 - 1630	0	10	2	11	7	1
1630 - 1635	0	9	2	12	8	2
1635 - 1640	0	11	2	13	9	2
1640 - 1645	0	12	3	11	12	5
Hourly Average	1.25	9.50	1.83	10.92	8.50	4.25
1645 - 1650	1	12	2	10	10	3
1650 - 1655	0	10	1	9	13	3
1655 - 1700	3	8	2	11	11	4
1700 - 1705	2	7	2	12	12	5
1705 - 1710	1	9	2	10	8	3
1710 - 1715	1	8	1	8	9	3
1715 - 1720	0	6	1	8	12	2
1720 - 1725	5	8	3	7	6	3
1725 - 1730	0	7	1	9	13	1
1730 - 1735	2	8	1	8	12	4
1735 - 1740	1	9	1	7	11	5
1740 - 1745	3	8	2	6	9	8
Hourly Average	1.58	8.33	1.58	8.75	10.50	3.67
1745 - 1750	0	7	1	9	11	3
1750 - 1755	2	9	3	9	13	6
1755 - 1800	1	9	2	7	7	7
1800 - 1805	2	10	1	8	6	3
1805 - 1810	5	8	2	10	8	4
1810 - 1815	2	9	1	11	11	3
1/2 Hourly Average	2.00	8.67	1.67	9.00	9.33	4.33

Session Total	1.53	8.87	1.70	9.67	9.47	4.03

Whitehaven, Cumbria
Queue Length Survey

Site 11 of 14

Highlands
A595 Loop Road South (South)
A595 Loop Road South (North)

Lat/Long

lat 54.550592° lon -3.580690°

Date

Wednesday 21 February 2018

Weather

Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	11a	11b	11c
0730 - 0735	1	1	0
0735 - 0740	1	3	0
0740 - 0745	3	5	0
0745 - 0750	2	3	0
0750 - 0755	1	3	0
0755 - 0800	1	2	0
0800 - 0805	1	2	0
0805 - 0810	1	1	0
0810 - 0815	1	3	3
0815 - 0820	2	4	0
0820 - 0825	1	1	0
0825 - 0830	1	1	0
Hourly Average	1.33	2.42	0.25
0830 - 0835	2	2	0
0835 - 0840	1	6	0
0840 - 0845	1	3	0
0845 - 0850	1	1	0
0850 - 0855	0	3	5
0855 - 0900	2	1	0
0900 - 0905	0	4	1
0905 - 0910	1	0	2
0910 - 0915	1	1	4
0915 - 0920	3	2	0
0920 - 0925	0	1	0
0925 - 0930	1	2	0
Hourly Average	1.08	2.17	1.00

Session Total	1.21	2.29	0.63

Date

Wednesday 21 February 2018

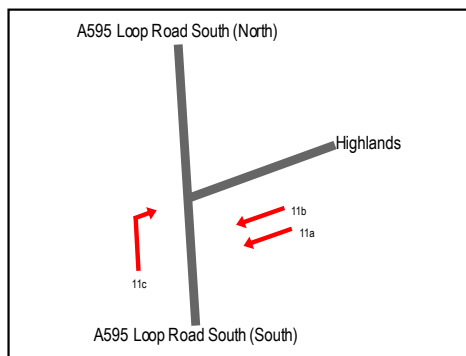
Weather

Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	11a	11b	11c
1545 - 1550	1	1	0
1550 - 1555	1	0	4
1555 - 1600	0	2	0
1600 - 1605	1	1	3
1605 - 1610	1	2	3
1610 - 1615	1	1	0
1615 - 1620	1	1	4
1620 - 1625	1	1	0
1625 - 1630	0	2	4
1630 - 1635	0	2	0
1635 - 1640	1	2	3
1640 - 1645	1	4	4
Hourly Average	0.75	1.58	2.08
1645 - 1650	1	2	0
1650 - 1655	1	1	0
1655 - 1700	1	1	4
1700 - 1705	1	1	2
1705 - 1710	0	1	4
1710 - 1715	1	0	0
1715 - 1720	2	3	0
1720 - 1725	1	1	3
1725 - 1730	1	1	6
1730 - 1735	0	0	4
1735 - 1740	2	1	1
1740 - 1745	0	0	3
Hourly Average	0.92	1.00	2.25
1745 - 1750	2	1	4
1750 - 1755	0	1	5
1755 - 1800	2	1	1
1800 - 1805	1	2	4
1805 - 1810	0	1	4
1810 - 1815	1	2	5
1/2 Hourly Average	1.00	1.33	3.83

Session Total	0.87	1.30	2.50



Whitehaven, Cumbria
Queue Length Survey

Site 12 of 14
Oakbank Road
Park View
Solway View

Lat/Long
lat 54.553277° lon -3.580611°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C

0730 - 0930 (Weekday AM Peak)

TIME	12a	12b	12c
0730 - 0735	1	0	0
0735 - 0740	0	0	1
0740 - 0745	0	0	0
0745 - 0750	1	0	2
0750 - 0755	2	0	1
0755 - 0800	2	0	0
0800 - 0805	1	0	0
0805 - 0810	0	2	0
0810 - 0815	0	2	1
0815 - 0820	1	0	1
0820 - 0825	0	0	0
0825 - 0830	1	1	2
Hourly Average	0.75	0.42	0.67
0830 - 0835	2	0	1
0835 - 0840	2	1	1
0840 - 0845	3	0	0
0845 - 0850	2	0	1
0850 - 0855	3	0	1
0855 - 0900	1	1	0
0900 - 0905	1	0	0
0905 - 0910	3	0	2
0910 - 0915	2	0	1
0915 - 0920	1	0	1
0920 - 0925	1	0	1
0925 - 0930	0	0	0
Hourly Average	1.75	0.17	0.75

Session Total	1.25	0.29	0.71

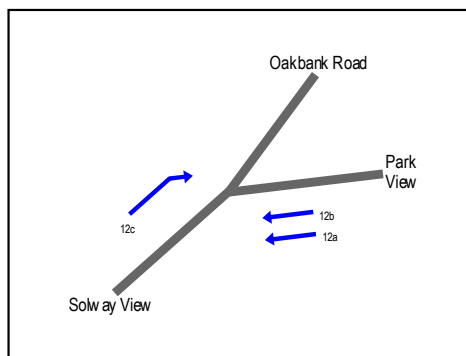
Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	12a	12b	12c
1545 - 1550	1	0	1
1550 - 1555	1	0	2
1555 - 1600	2	0	1
1600 - 1605	0	0	0
1605 - 1610	1	1	2
1610 - 1615	0	1	1
1615 - 1620	1	0	1
1620 - 1625	0	1	1
1625 - 1630	0	1	1
1630 - 1635	2	0	1
1635 - 1640	2	1	1
1640 - 1645	1	0	2
Hourly Average	0.92	0.42	1.17
1645 - 1650	1	0	0
1650 - 1655	0	1	1
1655 - 1700	0	0	1
1700 - 1705	3	0	1
1705 - 1710	1	0	4
1710 - 1715	0	1	0
1715 - 1720	2	0	1
1720 - 1725	2	0	1
1725 - 1730	1	0	0
1730 - 1735	1	0	1
1735 - 1740	3	0	0
1740 - 1745	2	0	2
Hourly Average	1.33	0.17	1.00
1745 - 1750	1	1	2
1750 - 1755	1	0	1
1755 - 1800	2	0	1
1800 - 1805	1	0	0
1805 - 1810	1	0	3
1810 - 1815	2	0	0
1/2 Hourly Average	1.33	0.17	1.17

Session Total	1.17	0.27	1.10



Whitehaven, Cumbria
Queue Length Survey

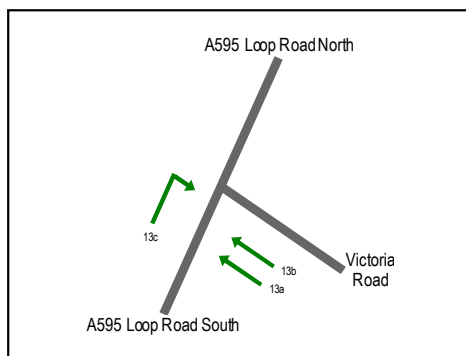
Site 13 of 14

A595 Loop Road North
Victoria Road
A595 Loop Road South

Lat/Long
lat 54.554936° lon -3.579112°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	13a	13b	13c
0730 - 0735	4	0	4
0735 - 0740	1	1	0
0740 - 0745	1	1	1
0745 - 0750	2	1	2
0750 - 0755	1	2	5
0755 - 0800	2	2	7
0800 - 0805	1	1	1
0805 - 0810	1	1	4
0810 - 0815	1	1	3
0815 - 0820	1	1	3
0820 - 0825	0	1	3
0825 - 0830	1	0	1
Hourly Average	1.33	1.00	2.83
0830 - 0835	1	1	5
0835 - 0840	1	1	6
0840 - 0845	1	4	7
0845 - 0850	1	1	7
0850 - 0855	1	3	4
0855 - 0900	1	2	3
0900 - 0905	1	3	5
0905 - 0910	2	2	5
0910 - 0915	1	1	0
0915 - 0920	1	2	0
0920 - 0925	2	1	5
0925 - 0930	0	1	4
Hourly Average	1.08	1.83	4.25

Session Total	1.21	1.42	3.54

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

TIME	13a	13b	13c
1545 - 1550	1	0	3
1550 - 1555	2	4	0
1555 - 1600	1	2	0
1600 - 1605	1	1	2
1605 - 1610	2	1	0
1610 - 1615	1	2	3
1615 - 1620	2	2	2
1620 - 1625	1	2	0
1625 - 1630	1	3	2
1630 - 1635	2	2	1
1635 - 1640	2	1	8
1640 - 1645	2	1	3
Hourly Average	1.50	1.75	2.00
1645 - 1650	2	3	7
1650 - 1655	2	2	6
1655 - 1700	2	3	10
1700 - 1705	1	1	9
1705 - 1710	2	4	5
1710 - 1715	2	4	7
1715 - 1720	1	2	8
1720 - 1725	2	3	6
1725 - 1730	1	1	4
1730 - 1735	2	2	7
1735 - 1740	1	1	6
1740 - 1745	2	2	3
Hourly Average	1.67	2.33	6.50
1745 - 1750	2	3	1
1750 - 1755	2	1	3
1755 - 1800	2	1	6
1800 - 1805	2	1	2
1805 - 1810	2	2	5
1810 - 1815	1	1	2
1/2 Hourly Average	1.83	1.50	3.17

Session Total	1.63	1.93	4.03

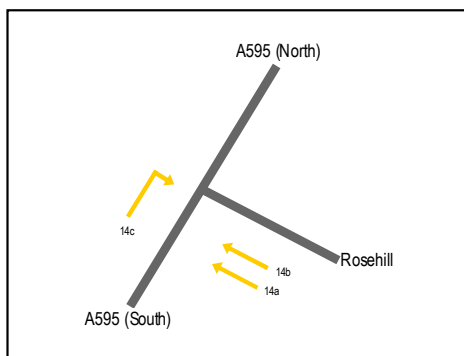
Whitehaven, Cumbria
Queue Length Survey

Site 14 of 14
A595 (North)
Rosehill
A595 (South)

Lat/Long
lat 54.571397° lon -3.573376°

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 3°C



0730 - 0930 (Weekday AM Peak)

TIME	14a	14b	14c
0730 - 0735	0	2	1
0735 - 0740	1	1	1
0740 - 0745	0	1	1
0745 - 0750	0	1	1
0750 - 0755	1	0	1
0755 - 0800	0	1	1
0800 - 0805	2	1	0
0805 - 0810	1	0	1
0810 - 0815	1	1	1
0815 - 0820	1	0	1
0820 - 0825	2	1	2
0825 - 0830	1	1	1
Hourly Average	0.83	0.83	1.00
0830 - 0835	2	1	1
0835 - 0840	2	1	1
0840 - 0845	2	1	2
0845 - 0850	3	5	1
0850 - 0855	2	3	1
0855 - 0900	2	1	2
0900 - 0905	2	1	2
0905 - 0910	1	2	2
0910 - 0915	1	0	0
0915 - 0920	1	1	1
0920 - 0925	1	1	1
0925 - 0930	2	3	1
Hourly Average	1.75	1.67	1.25

Session Total	1.29	1.25	1.13

Date
Wednesday 21 February 2018

Weather
Cloudy
Temp: 4°C

1545 - 1815 (Weekday PM Peak)

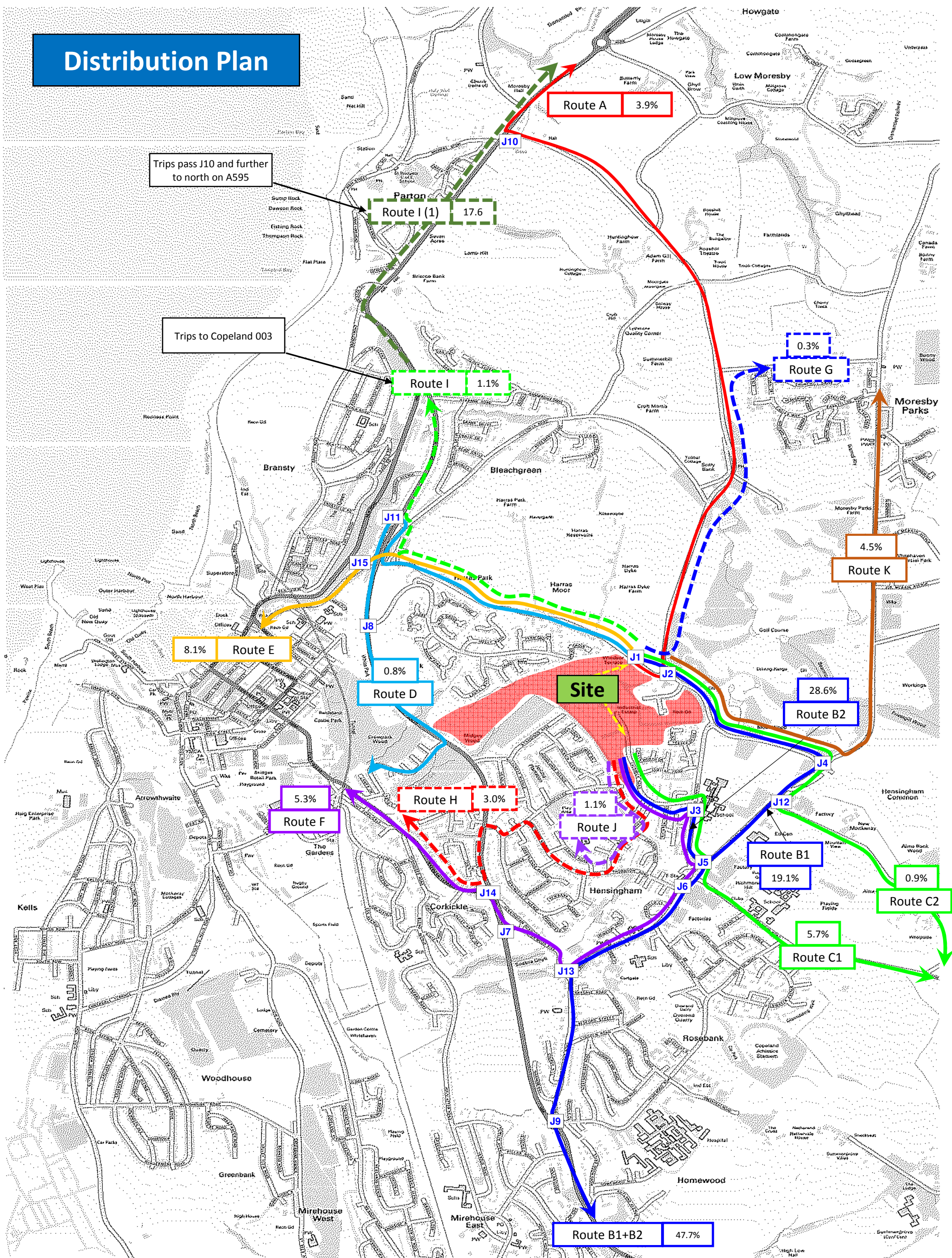
TIME	14a	14b	14c
1545 - 1550	1	3	1
1550 - 1555	1	1	1
1555 - 1600	1	1	0
1600 - 1605	2	1	1
1605 - 1610	0	0	2
1610 - 1615	2	2	1
1615 - 1620	1	2	2
1620 - 1625	4	0	0
1625 - 1630	1	1	1
1630 - 1635	1	1	2
1635 - 1640	1	4	2
1640 - 1645	1	6	1
Hourly Average	1.33	1.83	1.17
1645 - 1650	3	4	1
1650 - 1655	1	1	1
1655 - 1700	0	2	1
1700 - 1705	2	3	2
1705 - 1710	2	2	1
1710 - 1715	1	2	1
1715 - 1720	2	1	1
1720 - 1725	1	1	1
1725 - 1730	0	0	1
1730 - 1735	0	1	0
1735 - 1740	0	1	1
1740 - 1745	2	1	0
Hourly Average	1.17	1.58	0.92
1745 - 1750	1	0	1
1750 - 1755	1	0	1
1755 - 1800	1	0	2
1800 - 1805	1	1	1
1805 - 1810	1	2	1
1810 - 1815	2	1	0
1/2 Hourly Average	1.17	0.67	1.00

Session Total	1.23	1.50	1.03



Appendix E – Trip Distribution

Distribution Plan



WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

ONS Crown Copyright Reserved [from Nomis on 11 January 2018]

population All usual residents aged 16 and over in employment the week before the census
units Persons
date 2011
method of travel to work Driving a car or van

Place of Work : 2011 Census Merged Local Authority District	Place of Residence - E02004002 : Copeland 003	Route	%	Trips	Place of Work 2011 Super Output Area - Middle Layer	Place of Residence - E02004002 : Copeland 003	Route	%	trips
Copeland	2,747				E02004000 : Copeland 001	60	I(1)	70.0%	42
Allerdale	538	A	20.0%	107.6			G	15.0%	9
		I(1)	80.0%	430.4			K	15.0%	9
Carlisle	71	A	20.0%	14.2	E02004001 : Copeland 002	527	F	30.0%	158
		I(1)	80.0%	56.8			H	20.0%	105
Eden	35	A	20.0%	7			E	50.0%	264
		I(1)	80.0%	28			I	0.0%	0
Barrow-in-Furness	12	B1	40.0%	4.8	E02004002 : Copeland 003	371	C1	40.0%	148
		B2	60.0%	7.2			K	40.0%	148
South Lakeland	12	A	50.0%	6			J	10.0%	37
		B1	20.0%	2.4			I	10.0%	37
		B2	30.0%	3.6	E02004003 : Copeland 004	81	C1	60.0%	48.6
Lancaster	3	I(1)	100.0%	3			C2	40.0%	32.4
Hillingdon	3	I(1)	100.0%	3	E02004004 : Copeland 005	90	B1	8.0%	7
County Durham	2	I(1)	100.0%	2			B2	12.0%	11
Northumberland	2	I(1)	100.0%	2			E	20.0%	18
Sunderland	2	I(1)	100.0%	2			D	30.0%	27
Manchester	2	I(1)	100.0%	2			F	30.0%	27
Stockport	2	I(1)	100.0%	2	E02004005 : Copeland 006	270	B1	40.0%	108
Coventry	2	I(1)	100.0%	2			B2	60.0%	162
Chelmsford	2	I(1)	100.0%	2	E02004006 : Copeland 007	1,332	B1	40.0%	532.8
West Berkshire	2	I(1)	100.0%	2			B2	60.0%	799.2
South Oxfordshire	2	I(1)	100.0%	2	E02004007 : Copeland 008	16	B1	40.0%	6.4
North Tyneside	1	I(1)	100.0%	1			B2	60.0%	9.6
Warrington	1	I(1)	100.0%	1					
Cheshire East	1	I(1)	100.0%	1					
Cheshire West and Chester	1	I(1)	100.0%	1					
Fylde	1	I(1)	100.0%	1					
Ribble Valley	1	I(1)	100.0%	1					
South Ribble	1	I(1)	100.0%	1					
Wyre	1	I(1)	100.0%	1					
Wigan	1	I(1)	100.0%	1					
Sefton	1	I(1)	100.0%	1					
Richmondshire	1	I(1)	100.0%	1					
Sheffield	1	I(1)	100.0%	1					
Leeds	1	I(1)	100.0%	1					
Leicester	1	I(1)	100.0%	1					
Erewash	1	I(1)	100.0%	1					
Wellingborough	1	I(1)	100.0%	1					
Ashfield	1	I(1)	100.0%	1					
Rushcliffe	1	I(1)	100.0%	1					
Shropshire	1	I(1)	100.0%	1					
Rugby	1	I(1)	100.0%	1					
Fenland	1	I(1)	100.0%	1					
Great Yarmouth	1	I(1)	100.0%	1					
Bromley	1	I(1)	100.0%	1					
Hammersmith and Fulham	1	I(1)	100.0%	1					
Lambeth	1	I(1)	100.0%	1					
Cornwall,Isles of Scilly	1	I(1)	100.0%	1					
Wiltshire	1	I(1)	100.0%	1					
Cheltenham	1	I(1)	100.0%	1					
South Somerset	1	I(1)	100.0%	1					
Pembrokeshire	1	I(1)	100.0%	1					
Powys	1	I(1)	100.0%	1					
Total	3,470								

Route	Trips LA Level	Trips MSOA Level	Trips Total	%
A	135	0	135	3.9%
B1	7	654	662	19.1%
B2	11	982	992	28.6%
C1	0	197	197	5.7%
C2	0	32	32	0.9%
D	0	27	27	0.8%
E	0	282	282	8.1%
F	0	185	185	5.3%
G	0	9	9	0.3%
H	0	105	105	3.0%
I	0	37	37	1.1%
I(1)	570	42	612	17.6%
J	0	37	37	1.1%
K	0	157	157	4.5%
Total	723	2747	3470	100%

WYG's Response to Cumbria County Council's comment on the Proposed Trip Distribution set out in Cumbria County Council's emails of 24th January 2018

- **LHA Comment 1:** The greatest proportion of the trips to Carlisle, Allerdale and Eden (and all the trips assigned to Route A) is expected to go on Route I.
WYG Response: Amended to take account of the LHA's comment.
- **LHA Comment 2:** The southbound trips (Routes B1 and B2) should not be equally distributed between the two accesses; a greater proportion is expected to egress from the southbound access.
WYG Response: The 50%/50% split between Routes B2 (the southbound access) and B1 originally proposed has been amended to 60%/40% to take account of the LHA's comment.
- **LHA Comment 3:** No trips were assigned to Moresby Park Road.
WYG Response: An additional route along Moresby Parks Road for Copland 001 and Copland 003 has been assumed to take account of the LHA's comment (also see the LHA's comment 6 and LHA's Modelling Team's comment 2 below).
- **LHA Comment 4:** No trips to Copland 003 should be assigned to Route G.
WYG Response: The trip distribution amended to take account of the LHA 's comment.
- **LHA Comment 5:** Route C2 is a minor Road more trips are expected to be assigned on C1.
WYG Response: The 50%/50% split between Routes C1 and C2 originally proposed has been amended to 60%/40% to take account of the LHA's comment.
- **LHA Modelling Team Comment 6:** Copland 001- Routes: A I G and additional route on Moresby Parks Road.
WYG Response: The trip distribution has been amended to take account of the LHA 's comment.
- **LHA Comment 7:** Copland 004- Routes: C1 and C2.
WYG Response: The trip distribution has been amended to take account of the LHA 's comment.

Additional comments on the proposed trip distribution were received from the LHA's modelling team which together with WYG's response are listed as below:

- **LHA Modelling Team Comment 1:** Trips to Copeland 002 (Whitehaven town centre) should have a higher proportion of trips travelling routes E and F, and less (or even none) on route I as there aren't really any trip attractors in Bransty.

WYG Response: 20% on Route I have been equally re-allocated onto Route E and Route F.

- **LHA Modelling Team Comment 2:** Trips to Copeland 003 ignore the main trip attractors in the area, which is principally the West Cumberland hospital, but also Whitehaven Commercial Park in Moresby, and no trips should be assigned via route G (this only covers a few houses in Moresby Parks).

WYG Response: The trip distribution has been amended so that no trips are allocated to Route G with more trips allocated to Route C1 (40%, West Cumberland hospital) and Moresby Park Road (40%, Whitehaven Commercial Park).

- **LHA Modelling Team Comment 3:** Trips to Copeland 004 (Cleator Moor) should go via route C (and we would expect more trips to use the main route via the B5295).

WYG Response: The trip distribution has been amended to take account of the LHA 's comments.

- **LHA Modelling Team Comment 4:** Trips to Copeland 005 (Kells/Mirehouse) should mostly use route D and F.

WYG Response: The trip distribution has been amended to take account of the LHA 's comment with trips onto Route D and Route F increased to 60%.



Appendix F – JUNCTIONS 9 Output (J1)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896			
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For sales and distribution information, program advice and maintenance, contact TRL:			
+44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk			
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution			

Filename: J1 (Simple Priority Jun.).j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J1 Harras Rd Site Access

Report generation date: 22/10/2018 10:39:31

- »Proposed Site Access - 2023 with Dev., AM
- »Proposed Site Access - 2023 with Dev., PM
- »Proposed Site Access - 2028 with Dev., AM
- »Proposed Site Access - 2028 with Dev., PM

Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
Proposed Site Access - 2023 with Dev.				
Stream B-AC	0.3	0.21	0.1	0.10
Stream C-AB	0.0	0.03	0.1	0.09
Proposed Site Access - 2028 with Dev.				
Stream B-AC	0.3	0.21	0.1	0.10
Stream C-AB	0.0	0.03	0.1	0.09

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	(untitled)
Location	
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2023 with Dev.	AM	ONE HOUR	07:45	09:15	15	✓
D2	2023 with Dev.	PM	ONE HOUR	16:00	17:30	15	✓
D3	2028 with Dev.	AM	ONE HOUR	07:45	09:15	15	✓
D4	2028 with Dev.	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Site Access	✓	100.000	100.000

Proposed Site Access - 2023 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	Proposed Site Access/Harras Road Junction	T-Junction	Two-way		2.19	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Harras Rd (E)		Major
B	Site Access		Minor
C	Harras Rd (W)		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 - Harras Rd (W)	6.00			90.0	✓	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 - Site Access	One lane	3.00	16	18

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492	0.090	0.226	0.142	0.323
1	B-C	635	0.097	0.246	-	-
1	C-B	626	0.243	0.243	-	-

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	2023 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 (%)
A - Harras Rd (E)		ONE HOUR	✓	201	100.000
B - Site Access		ONE HOUR	✓	94	100.000
C - Harras Rd (W)		ONE HOUR	✓	163	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	17	184
	B - Site Access	48	0	46
	C - Harras Rd (W)	147	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	0	1
	B - Site Access	0	0	0
	C - Harras Rd (W)	0	0	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)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.21	9.47	0.3	A	86	129	18.99	8.81	0.21	18.99	8.81
C-AB	0.03	5.55	0.0	A	19	28	3.19	6.88	0.04	3.19	6.88
C-A					131	197					
A-B					16	23					
A-C					169	253					

Main Results for each time segment

07:45 - 08:00

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-AC	71	18	506	0.140	70	0.0	0.2	8.254	A
C-AB	14	4	664	0.022	14	0.0	0.0	5.543	A
C-A	108	27			108				
A-B	13	3			13				
A-C	139	35			139				

08:00 - 08:15

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-AC	85	21	496	0.170	84	0.2	0.2	8.732	A
C-AB	18	4	672	0.027	18	0.0	0.0	5.506	A
C-A	129	32			129				
A-B	15	4			15				
A-C	165	41			165				

08:15 - 08:30

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-AC	103	26	484	0.214	103	0.2	0.3	9.458	A
C-AB	23	6	683	0.034	23	0.0	0.0	5.456	A
C-A	156	39			156				
A-B	19	5			19				
A-C	203	51			203				

08:30 - 08:45

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-AC	103	26	484	0.214	103	0.3	0.3	9.471	A
C-AB	23	6	683	0.034	23	0.0	0.0	5.457	A
C-A	156	39			156				
A-B	19	5			19				
A-C	203	51			203				

08:45 - 09:00

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-AC	85	21	496	0.170	85	0.3	0.2	8.750	A
C-AB	18	4	672	0.027	18	0.0	0.0	5.509	A
C-A	129	32			129				
A-B	15	4			15				
A-C	165	41			165				

09:00 - 09:15

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-AC	71	18	506	0.140	71	0.2	0.2	8.286	A
C-AB	14	4	664	0.022	15	0.0	0.0	5.546	A
C-A	108	27			108				
A-B	13	3			13				
A-C	139	35			139				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.32	0.15	8.254	A
C-AB	0.39	0.03	5.543	A

08:00 - 08:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.97	0.20	8.732	A
C-AB	0.51	0.03	5.506	A

08:15 - 08:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	3.92	0.26	9.458	A
C-AB	0.68	0.05	5.456	A

08:30 - 08:45

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	4.05	0.27	9.471	A
C-AB	0.69	0.05	5.457	A

08:45 - 09:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	3.20	0.21	8.750	A
C-AB	0.51	0.03	5.509	A

09:00 - 09:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.53	0.17	8.286	A
C-AB	0.40	0.03	5.546	A

Proposed Site Access - 2023 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	Proposed Site Access/Harras Road Junction	T-Junction	Two-way		1.33	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)	Run automatically
D2	2023 with Dev.	PM	ONE HOUR	16:00	17:30	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 - Harras Rd (E)		ONE HOUR	✓	234	100.000
B - Site Access		ONE HOUR	✓	43	100.000
C - Harras Rd (W)		ONE HOUR	✓	225	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
	A - Harras Rd (E)	0	42	192
	B - Site Access	22	0	21
	C - Harras Rd (W)	185	40	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
From		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
	A - Harras Rd (E)	0	0	1
	B - Site Access	0	0	0
	C - Harras Rd (W)	0	0	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)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	8.55	0.1	A	39	59	8.00	8.11	0.09	8.00	8.11
C-AB	0.09	5.63	0.1	A	49	74	9.89	8.04	0.11	9.90	8.04
C-A					157	236					
A-B					39	58					
A-C					176	264					

Main Results for each time segment

16:00 - 16:15

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-AC	32	8	496	0.065	32	0.0	0.1	7.762	A
C-AB	38	9	677	0.056	38	0.0	0.1	5.625	A
C-A	131	33			131				
A-B	32	8			32				
A-C	145	36			145				

16:15 - 16:30

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-AC	39	10	484	0.080	39	0.1	0.1	8.078	A
C-AB	47	12	688	0.069	47	0.1	0.1	5.618	A
C-A	155	39			155				
A-B	38	9			38				
A-C	173	43			173				

16:30 - 16:45

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-AC	47	12	468	0.101	47	0.1	0.1	8.545	A
C-AB	62	16	704	0.088	62	0.1	0.1	5.614	A
C-A	186	46			186				
A-B	46	12			46				
A-C	211	53			211				

16:45 - 17:00

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-AC	47	12	468	0.101	47	0.1	0.1	8.549	A
C-AB	62	16	704	0.088	62	0.1	0.1	5.616	A
C-A	186	46			186				
A-B	46	12			46				
A-C	211	53			211				

17:00 - 17:15

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-AC	39	10	484	0.080	39	0.1	0.1	8.084	A
C-AB	48	12	688	0.069	48	0.1	0.1	5.624	A
C-A	155	39			155				
A-B	38	9			38				
A-C	173	43			173				

17:15 - 17:30

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-AC	32	8	495	0.065	32	0.1	0.1	7.776	A
C-AB	38	9	678	0.056	38	0.1	0.1	5.631	A
C-A	131	33			131				
A-B	32	8			32				
A-C	145	36			145				

Queueing Delay Results for each time segment
16:00 - 16:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.00	0.07	7.762	A
C-AB	1.20	0.08	5.625	A

16:15 - 16:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.26	0.08	8.078	A
C-AB	1.57	0.10	5.618	A

16:30 - 16:45

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.63	0.11	8.545	A
C-AB	2.14	0.14	5.614	A

16:45 - 17:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.67	0.11	8.549	A
C-AB	2.16	0.14	5.616	A

17:00 - 17:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.35	0.09	8.084	A
C-AB	1.59	0.11	5.624	A

17:15 - 17:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.08	0.07	7.776	A
C-AB	1.23	0.08	5.631	A

Proposed Site Access - 2028 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	Proposed Site Access/Harras Road Junction	T-Junction	Two-way		2.15	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	2028 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 (%)
A - Harras Rd (E)		ONE HOUR	✓	207	100.000
B - Site Access		ONE HOUR	✓	94	100.000
C - Harras Rd (W)		ONE HOUR	✓	167	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	17	190
	B - Site Access	48	0	46
	C - Harras Rd (W)	151	16	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	0	1
	B - Site Access	0	0	0
	C - Harras Rd (W)	0	0	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)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.21	9.52	0.3	A	86	129	19.07	8.84	0.21	19.07	8.84
C-AB	0.03	5.54	0.0	A	19	28	3.20	6.88	0.04	3.20	6.88
C-A					135	202					
A-B					16	23					
A-C					174	262					

Main Results for each time segment

07:45 - 08:00

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-AC	71	18	504	0.140	70	0.0	0.2	8.279	A
C-AB	15	4	665	0.022	14	0.0	0.0	5.535	A
C-A	111	28			111				
A-B	13	3			13				
A-C	143	36			143				

08:00 - 08:15

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-AC	85	21	495	0.171	84	0.2	0.2	8.767	A
C-AB	18	5	673	0.027	18	0.0	0.0	5.496	A
C-A	132	33			132				
A-B	15	4			15				
A-C	171	43			171				

08:15 - 08:30

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-AC	103	26	482	0.215	103	0.2	0.3	9.508	A
C-AB	23	6	684	0.034	23	0.0	0.0	5.445	A
C-A	161	40			161				
A-B	19	5			19				
A-C	209	52			209				

08:30 - 08:45

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-AC	103	26	482	0.215	103	0.3	0.3	9.522	A
C-AB	23	6	684	0.034	23	0.0	0.0	5.448	A
C-A	161	40			161				
A-B	19	5			19				
A-C	209	52			209				

08:45 - 09:00

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-AC	85	21	495	0.171	85	0.3	0.2	8.787	A
C-AB	18	5	673	0.027	18	0.0	0.0	5.500	A
C-A	132	33			132				
A-B	15	4			15				
A-C	171	43			171				

09:00 - 09:15

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-AC	71	18	504	0.140	71	0.2	0.2	8.310	A
C-AB	15	4	665	0.022	15	0.0	0.0	5.536	A
C-A	111	28			111				
A-B	13	3			13				
A-C	143	36			143				

Queueing Delay Results for each time segment
07:45 - 08:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.33	0.16	8.279	A
C-AB	0.39	0.03	5.535	A

08:00 - 08:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.98	0.20	8.767	A
C-AB	0.51	0.03	5.496	A

08:15 - 08:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	3.94	0.26	9.508	A
C-AB	0.69	0.05	5.445	A

08:30 - 08:45

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	4.07	0.27	9.522	A
C-AB	0.69	0.05	5.448	A

08:45 - 09:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	3.21	0.21	8.787	A
C-AB	0.52	0.03	5.500	A

09:00 - 09:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	2.53	0.17	8.310	A
C-AB	0.40	0.03	5.536	A

Proposed Site Access - 2028 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	Proposed Site Access/Harras Road Junction	T-Junction	Two-way		1.31	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	2028 with Dev.	PM	ONE HOUR	16:00	17:30	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 - Harras Rd (E)		ONE HOUR	✓	239	100.000
B - Site Access		ONE HOUR	✓	43	100.000
C - Harras Rd (W)		ONE HOUR	✓	231	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	42	197
	B - Site Access	22	0	21
	C - Harras Rd (W)	191	40	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Harras Rd (E)	B - Site Access	C - Harras Rd (W)
From	A - Harras Rd (E)	0	0	1
	B - Site Access	0	0	0
	C - Harras Rd (W)	0	0	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)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-AC	0.10	8.59	0.1	A	39	59	8.03	8.14	0.09	8.03	8.14
C-AB	0.09	5.61	0.1	A	50	75	10.06	8.10	0.11	10.06	8.10
C-A					162	243					
A-B					39	58					
A-C					181	271					

Main Results for each time segment

16:00 - 16:15

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-AC	32	8	494	0.066	32	0.0	0.1	7.785	A
C-AB	38	10	680	0.056	38	0.0	0.1	5.608	A
C-A	136	34			136				
A-B	32	8			32				
A-C	148	37			148				

16:15 - 16:30

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-AC	39	10	483	0.080	39	0.1	0.1	8.108	A
C-AB	48	12	691	0.069	48	0.1	0.1	5.598	A
C-A	160	40			160				
A-B	38	9			38				
A-C	177	44			177				

16:30 - 16:45

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-AC	47	12	466	0.102	47	0.1	0.1	8.586	A
C-AB	63	16	707	0.089	63	0.1	0.1	5.589	A
C-A	192	48			192				
A-B	46	12			46				
A-C	217	54			217				

16:45 - 17:00

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-AC	47	12	466	0.102	47	0.1	0.1	8.590	A
C-AB	63	16	707	0.089	63	0.1	0.1	5.591	A
C-A	191	48			191				
A-B	46	12			46				
A-C	217	54			217				

17:00 - 17:15

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-AC	39	10	483	0.080	39	0.1	0.1	8.115	A
C-AB	48	12	691	0.069	48	0.1	0.1	5.604	A
C-A	160	40			160				
A-B	38	9			38				
A-C	177	44			177				

17:15 - 17:30

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-AC	32	8	494	0.066	32	0.1	0.1	7.800	A
C-AB	38	10	680	0.056	38	0.1	0.1	5.614	A
C-A	136	34			136				
A-B	32	8			32				
A-C	148	37			148				

Queueing Delay Results for each time segment
16:00 - 16:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.01	0.07	7.785	A
C-AB	1.21	0.08	5.608	A

16:15 - 16:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.27	0.08	8.108	A
C-AB	1.60	0.11	5.598	A

16:30 - 16:45

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.64	0.11	8.586	A
C-AB	2.18	0.15	5.589	A

16:45 - 17:00

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.68	0.11	8.590	A
C-AB	2.20	0.15	5.591	A

17:00 - 17:15

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.35	0.09	8.115	A
C-AB	1.62	0.11	5.604	A

17:15 - 17:30

Stream	Queueing total delay (PCU-min)	Queueing rate of delay (PCU-min/min)	Average delay per arriving vehicle (s)	Unsignalised level of service
B-AC	1.08	0.07	7.800	A
C-AB	1.25	0.08	5.614	A



Appendix G – JUNCTIONS 9 Output (J2)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: J2.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J2 Harras Rd _Red Lonning Pri

Report generation date: 22/10/2018 10:47:51

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-C	0.0	6.71	0.01	1.06	0.0	7.58	0.04	2.18
Stream B-A	0.3	9.10	0.21		0.5	11.73	0.34	
Stream C-AB	0.0	4.80	0.01		0.1	5.51	0.07	
	Existing Layout - 2023 Baseline Flows							
Stream B-C	0.0	7.04	0.02	1.64	0.0	7.92	0.05	2.52
Stream B-A	0.5	10.76	0.31		0.7	13.27	0.40	
Stream C-AB	0.0	4.77	0.01		0.2	5.54	0.08	
	Existing Layout - 2023 with Dev. Flows							
Stream B-C	0.0	7.41	0.03	2.36	0.1	8.24	0.05	2.94
Stream B-A	0.7	12.63	0.41		0.8	14.81	0.45	
Stream C-AB	0.0	4.81	0.02		0.2	5.64	0.10	
	Existing Layout - 2028 Baseline Flows							
Stream B-C	0.0	7.10	0.02	1.68	0.1	8.05	0.05	2.62
Stream B-A	0.5	11.09	0.33		0.7	13.89	0.42	
Stream C-AB	0.0	4.74	0.01		0.2	5.53	0.09	
	Existing Layout - 2028 with Dev. Flows							
Stream B-C	0.0	7.48	0.03	2.40	0.1	8.40	0.06	3.08
Stream B-A	0.7	13.04	0.42		0.9	15.59	0.47	
Stream C-AB	0.0	4.78	0.02		0.2	5.64	0.11	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Harras Road / Red Lonning priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		1.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Red Lonning (S)		Major
B	Harras Rd		Minor
C	Red Lonning (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 - Red Lonning (N)	7.45			70.0	✓	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	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 - Harras Rd	One lane plus flare	10.00	9.59	6.67	5.37	5.14	✓	3.00	100	90

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	666	0.114	0.287	0.181	0.410
1	B-C	638	0.092	0.232	-	-
1	C-B	615	0.223	0.223	-	-

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	2018 Surveyed Flows	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 - Red Lonning (S)		ONE HOUR	✓	355	100.000
B - Harras Rd		ONE HOUR	✓	99	100.000
C - Red Lonning (N)		ONE HOUR	✓	418	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	156	199
	B - Harras Rd	94	0	5
	C - Red Lonning (N)	414	4	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	1	5
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	5	0	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	0.01	6.71	0.0	A	5	7
B-A	0.21	9.10	0.3	A	86	129
C-AB	0.01	4.80	0.0	A	7	11
C-A					376	565
A-B					143	215
A-C					183	274

Main Results for each time segment

07:45 - 08:00

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	4	0.94	574	0.007	4	0.0	0.0	6.315	A
B-A	71	18	552	0.128	70	0.0	0.1	7.467	A
C-AB	5	1	770	0.007	5	0.0	0.0	4.795	A
C-A	310	77			310				
A-B	117	29			117				
A-C	150	37			150				

08:00 - 08:15

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	4	1	560	0.008	4	0.0	0.0	6.475	A
B-A	85	21	530	0.160	84	0.1	0.2	8.086	A
C-AB	7	2	803	0.008	7	0.0	0.0	4.616	A
C-A	369	92			369				
A-B	140	35			140				
A-C	179	45			179				

08:15 - 08:30

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	6	1	542	0.010	5	0.0	0.0	6.713	A
B-A	103	26	499	0.207	103	0.2	0.3	9.089	A
C-AB	10	2	850	0.011	10	0.0	0.0	4.390	A
C-A	451	113			451				
A-B	172	43			172				
A-C	219	55			219				

08:30 - 08:45

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	6	1	542	0.010	6	0.0	0.0	6.715	A
B-A	103	26	499	0.207	103	0.3	0.3	9.102	A
C-AB	10	2	850	0.011	10	0.0	0.0	4.399	A
C-A	451	113			451				
A-B	172	43			172				
A-C	219	55			219				

08:45 - 09:00

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	4	1	560	0.008	5	0.0	0.0	6.477	A
B-A	85	21	530	0.160	85	0.3	0.2	8.098	A
C-AB	7	2	803	0.008	7	0.0	0.0	4.631	A
C-A	369	92			369				
A-B	140	35			140				
A-C	179	45			179				

09:00 - 09:15

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	4	0.94	573	0.007	4	0.0	0.0	6.318	A
B-A	71	18	552	0.128	71	0.2	0.1	7.493	A
C-AB	5	1	770	0.007	5	0.0	0.0	4.805	A
C-A	310	77			310				
A-B	117	29			117				
A-C	150	37			150				

Existing Layout - 2018 Surveyed Flows , 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.18	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	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (S)		ONE HOUR	✓	471	100.000
B - Harras Rd		ONE HOUR	✓	163	100.000
C - Red Lonning (N)		ONE HOUR	✓	321	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	130	341
	B - Harras Rd	145	0	18
	C - Red Lonning (N)	294	27	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	0	1
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	3	0	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	0.04	7.58	0.0	A	17	25
B-A	0.34	11.73	0.5	B	133	200
C-AB	0.07	5.51	0.1	A	41	61
C-A					254	381
A-B					119	179
A-C					313	469

Main Results for each time segment

16:00 - 16:15

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	14	3	546	0.025	13	0.0	0.0	6.757	A
B-A	109	27	528	0.207	108	0.0	0.3	8.560	A
C-AB	30	7	691	0.043	30	0.0	0.1	5.494	A
C-A	212	53			212				
A-B	98	24			98				
A-C	257	64			257				

16:15 - 16:30

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	16	4	525	0.031	16	0.0	0.0	7.069	A
B-A	130	33	502	0.260	130	0.3	0.3	9.669	A
C-AB	39	10	708	0.055	39	0.1	0.1	5.436	A
C-A	250	62			250				
A-B	117	29			117				
A-C	307	77			307				

16:30 - 16:45

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	20	5	495	0.040	20	0.0	0.0	7.573	A
B-A	160	40	467	0.342	159	0.3	0.5	11.677	B
C-AB	53	13	733	0.073	53	0.1	0.1	5.364	A
C-A	300	75			300				
A-B	143	36			143				
A-C	375	94			375				

16:45 - 17:00

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	20	5	495	0.040	20	0.0	0.0	7.578	A
B-A	160	40	467	0.342	160	0.5	0.5	11.727	B
C-AB	53	13	733	0.073	53	0.1	0.1	5.372	A
C-A	300	75			300				
A-B	143	36			143				
A-C	375	94			375				

17:00 - 17:15

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	16	4	525	0.031	16	0.0	0.0	7.075	A
B-A	130	33	502	0.260	131	0.5	0.4	9.720	A
C-AB	39	10	708	0.055	39	0.1	0.1	5.451	A
C-A	250	62			250				
A-B	117	29			117				
A-C	307	77			307				

17:15 - 17:30

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	14	3	546	0.025	14	0.0	0.0	6.763	A
B-A	109	27	528	0.207	110	0.4	0.3	8.619	A
C-AB	30	8	691	0.043	30	0.1	0.1	5.507	A
C-A	212	53			212				
A-B	98	24			98				
A-C	257	64			257				

Existing Layout - 2023 Baseline Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		1.64	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
D3	2023 Baseline Flows	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 - Red Lonning (S)		ONE HOUR	✓	389	100.000
B - Harras Rd		ONE HOUR	✓	147	100.000
C - Red Lonning (N)		ONE HOUR	✓	442	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	179	210
	B - Harras Rd	139	0	8
	C - Red Lonning (N)	437	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	1	5
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	5	0	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	0.02	7.04	0.0	A	7	11
B-A	0.31	10.76	0.5	B	128	191
C-AB	0.01	4.77	0.0	A	9	14
C-A					396	594
A-B					164	246
A-C					193	289

Main Results for each time segment

07:45 - 08:00

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	6	2	561	0.011	6	0.0	0.0	6.486	A
B-A	105	26	544	0.192	104	0.0	0.2	8.165	A
C-AB	7	2	778	0.008	6	0.0	0.0	4.763	A
C-A	326	82			326				
A-B	135	34			135				
A-C	158	40			158				

08:00 - 08:15

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	7	2	544	0.013	7	0.0	0.0	6.700	A
B-A	125	31	520	0.240	125	0.2	0.3	9.096	A
C-AB	9	2	812	0.011	9	0.0	0.0	4.579	A
C-A	389	97			389				
A-B	161	40			161				
A-C	189	47			189				

08:15 - 08:30

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	9	2	520	0.017	9	0.0	0.0	7.036	A
B-A	153	38	487	0.314	152	0.3	0.5	10.728	B
C-AB	13	3	861	0.015	12	0.0	0.0	4.349	A
C-A	474	119			474				
A-B	197	49			197				
A-C	231	58			231				

08:30 - 08:45

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	9	2	520	0.017	9	0.0	0.0	7.038	A
B-A	153	38	487	0.314	153	0.5	0.5	10.764	B
C-AB	13	3	861	0.015	13	0.0	0.0	4.358	A
C-A	474	119			474				
A-B	197	49			197				
A-C	231	58			231				

08:45 - 09:00

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	7	2	544	0.013	7	0.0	0.0	6.706	A
B-A	125	31	520	0.240	125	0.5	0.3	9.137	A
C-AB	9	2	812	0.011	9	0.0	0.0	4.597	A
C-A	389	97			389				
A-B	161	40			161				
A-C	189	47			189				

09:00 - 09:15

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	6	2	561	0.011	6	0.0	0.0	6.490	A
B-A	105	26	544	0.192	105	0.3	0.2	8.211	A
C-AB	7	2	778	0.008	7	0.0	0.0	4.773	A
C-A	326	82			326				
A-B	135	34			135				
A-C	158	40			158				

Existing Layout - 2023 Baseline Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.52	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
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (S)		ONE HOUR	✓	521	100.000
B - Harras Rd		ONE HOUR	✓	185	100.000
C - Red Lonning (N)		ONE HOUR	✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	162	359
	B - Harras Rd	165	0	20
	C - Red Lonning (N)	309	30	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	0	1
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	3	0	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	0.05	7.92	0.0	A	18	28
B-A	0.40	13.27	0.7	B	151	227
C-AB	0.08	5.54	0.2	A	47	70
C-A					264	396
A-B					149	223
A-C					329	494

Main Results for each time segment

16:00 - 16:15

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	15	4	536	0.028	15	0.0	0.0	6.907	A
B-A	124	31	518	0.240	123	0.0	0.3	9.077	A
C-AB	34	9	692	0.049	34	0.0	0.1	5.526	A
C-A	221	55			221				
A-B	122	30			122				
A-C	270	68			270				

16:15 - 16:30

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	18	4	512	0.035	18	0.0	0.0	7.279	A
B-A	148	37	491	0.302	148	0.3	0.4	10.481	B
C-AB	44	11	709	0.063	44	0.1	0.1	5.474	A
C-A	260	65			260				
A-B	146	36			146				
A-C	323	81			323				

16:30 - 16:45

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	22	6	477	0.046	22	0.0	0.0	7.909	A
B-A	182	45	453	0.401	181	0.4	0.7	13.186	B
C-AB	62	15	735	0.084	62	0.1	0.2	5.416	A
C-A	312	78			312				
A-B	178	45			178				
A-C	395	99			395				

16:45 - 17:00

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	22	6	477	0.046	22	0.0	0.0	7.918	A
B-A	182	45	453	0.401	182	0.7	0.7	13.271	B
C-AB	62	15	735	0.084	62	0.2	0.2	5.426	A
C-A	311	78			311				
A-B	178	45			178				
A-C	395	99			395				

17:00 - 17:15

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	18	4	512	0.035	18	0.0	0.0	7.288	A
B-A	148	37	491	0.302	149	0.7	0.4	10.568	B
C-AB	45	11	709	0.063	45	0.2	0.1	5.491	A
C-A	260	65			260				
A-B	146	36			146				
A-C	323	81			323				

17:15 - 17:30

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	15	4	535	0.028	15	0.0	0.0	6.918	A
B-A	124	31	518	0.240	125	0.4	0.3	9.159	A
C-AB	34	9	692	0.049	34	0.1	0.1	5.540	A
C-A	221	55			221				
A-B	122	30			122				
A-C	270	68			270				

Existing Layout - 2023 with Dev. Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.36	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
D5	2023 with Dev. Flows	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 - Red Lonning (S)		ONE HOUR	✓	403	100.000
B - Harras Rd		ONE HOUR	✓	195	100.000
C - Red Lonning (N)		ONE HOUR	✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	193	210
	B - Harras Rd	180	0	15
	C - Red Lonning (N)	437	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	1	5
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	5	0	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	0.03	7.41	0.0	A	14	21
B-A	0.41	12.63	0.7	B	165	248
C-AB	0.02	4.81	0.0	A	15	22
C-A					393	590
A-B					177	266
A-C					193	289

Main Results for each time segment

07:45 - 08:00

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	11	3	553	0.020	11	0.0	0.0	6.645	A
B-A	136	34	540	0.251	134	0.0	0.3	8.841	A
C-AB	10	3	776	0.013	10	0.0	0.0	4.799	A
C-A	325	81			325				
A-B	145	36			145				
A-C	158	40			158				

08:00 - 08:15

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	13	3	533	0.025	13	0.0	0.0	6.924	A
B-A	162	40	516	0.313	161	0.3	0.4	10.129	B
C-AB	14	3	810	0.017	14	0.0	0.0	4.622	A
C-A	386	97			386				
A-B	174	43			174				
A-C	189	47			189				

08:15 - 08:30

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	17	4	503	0.033	16	0.0	0.0	7.400	A
B-A	198	50	483	0.410	197	0.4	0.7	12.554	B
C-AB	20	5	859	0.023	20	0.0	0.0	4.402	A
C-A	470	117			470				
A-B	212	53			212				
A-C	231	58			231				

08:30 - 08:45

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	17	4	502	0.033	17	0.0	0.0	7.407	A
B-A	198	50	483	0.410	198	0.7	0.7	12.630	B
C-AB	20	5	859	0.023	20	0.0	0.0	4.409	A
C-A	470	117			470				
A-B	212	53			212				
A-C	231	58			231				

08:45 - 09:00

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	13	3	533	0.025	14	0.0	0.0	6.932	A
B-A	162	40	516	0.313	163	0.7	0.5	10.209	B
C-AB	14	4	810	0.017	14	0.0	0.0	4.641	A
C-A	386	97			386				
A-B	174	43			174				
A-C	189	47			189				

09:00 - 09:15

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	11	3	552	0.020	11	0.0	0.0	6.652	A
B-A	136	34	540	0.251	136	0.5	0.3	8.918	A
C-AB	10	3	776	0.014	11	0.0	0.0	4.810	A
C-A	325	81			325				
A-B	145	36			145				
A-C	158	40			158				

Existing Layout - 2023 with Dev. Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.94	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (S)		ONE HOUR	✓	556	100.000
B - Harras Rd		ONE HOUR	✓	207	100.000
C - Red Lonning (N)		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	197	359
	B - Harras Rd	184	0	23
	C - Red Lonning (N)	309	36	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	0	1
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	3	0	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	0.05	8.24	0.1	A	21	32
B-A	0.45	14.81	0.8	B	169	253
C-AB	0.10	5.64	0.2	A	57	85
C-A					260	390
A-B					181	271
A-C					329	494

Main Results for each time segment

16:00 - 16:15

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	17	4	529	0.033	17	0.0	0.0	7.025	A
B-A	139	35	513	0.270	137	0.0	0.4	9.533	A
C-AB	41	10	686	0.060	41	0.0	0.1	5.627	A
C-A	219	55			219				
A-B	148	37			148				
A-C	270	68			270				

16:15 - 16:30

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	21	5	504	0.041	21	0.0	0.0	7.452	A
B-A	165	41	485	0.341	165	0.4	0.5	11.230	B
C-AB	54	13	703	0.076	54	0.1	0.1	5.604	A
C-A	256	64			256				
A-B	177	44			177				
A-C	323	81			323				

16:30 - 16:45

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	25	6	463	0.055	25	0.0	0.1	8.221	A
B-A	203	51	446	0.455	201	0.5	0.8	14.669	B
C-AB	75	19	728	0.103	74	0.1	0.2	5.582	A
C-A	305	76			305				
A-B	217	54			217				
A-C	395	99			395				

16:45 - 17:00

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	25	6	462	0.055	25	0.1	0.1	8.235	A
B-A	203	51	445	0.455	203	0.8	0.8	14.811	B
C-AB	75	19	728	0.103	75	0.2	0.2	5.593	A
C-A	305	76			305				
A-B	217	54			217				
A-C	395	99			395				

17:00 - 17:15

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	21	5	503	0.041	21	0.1	0.0	7.465	A
B-A	165	41	485	0.341	167	0.8	0.5	11.356	B
C-AB	54	13	703	0.076	54	0.2	0.1	5.624	A
C-A	256	64			256				
A-B	177	44			177				
A-C	323	81			323				

17:15 - 17:30

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	17	4	529	0.033	17	0.0	0.0	7.039	A
B-A	139	35	513	0.270	139	0.5	0.4	9.641	A
C-AB	41	10	687	0.060	41	0.1	0.1	5.644	A
C-A	219	55			219				
A-B	148	37			148				
A-C	270	68			270				

Existing Layout - 2028 Baseline Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		1.68	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	2028 Baseline Flows	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 - Red Lonning (S)		ONE HOUR	✓	401	100.000
B - Harras Rd		ONE HOUR	✓	151	100.000
C - Red Lonning (N)		ONE HOUR	✓	456	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	184	217
	B - Harras Rd	143	0	8
	C - Red Lonning (N)	451	5	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	1	5
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	5	0	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	0.02	7.10	0.0	A	7	11
B-A	0.33	11.09	0.5	B	131	197
C-AB	0.01	4.74	0.0	A	9	14
C-A					409	613
A-B					169	253
A-C					199	299

Main Results for each time segment

07:45 - 08:00

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	6	2	558	0.011	6	0.0	0.0	6.517	A
B-A	108	27	540	0.199	107	0.0	0.2	8.292	A
C-AB	7	2	783	0.008	7	0.0	0.0	4.731	A
C-A	337	84			337				
A-B	139	35			139				
A-C	163	41			163				

08:00 - 08:15

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	7	2	541	0.013	7	0.0	0.0	6.740	A
B-A	129	32	516	0.249	128	0.2	0.3	9.287	A
C-AB	9	2	819	0.011	9	0.0	0.0	4.543	A
C-A	401	100			401				
A-B	165	41			165				
A-C	195	49			195				

08:15 - 08:30

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	9	2	516	0.017	9	0.0	0.0	7.096	A
B-A	157	39	482	0.327	157	0.3	0.5	11.054	B
C-AB	13	3	870	0.015	13	0.0	0.0	4.309	A
C-A	489	122			489				
A-B	203	51			203				
A-C	239	60			239				

08:30 - 08:45

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	9	2	516	0.017	9	0.0	0.0	7.099	A
B-A	157	39	482	0.327	157	0.5	0.5	11.093	B
C-AB	13	3	870	0.015	13	0.0	0.0	4.317	A
C-A	489	122			489				
A-B	203	51			203				
A-C	239	60			239				

08:45 - 09:00

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	7	2	541	0.013	7	0.0	0.0	6.747	A
B-A	129	32	516	0.249	129	0.5	0.3	9.331	A
C-AB	9	2	819	0.011	9	0.0	0.0	4.561	A
C-A	401	100			401				
A-B	165	41			165				
A-C	195	49			195				

09:00 - 09:15

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	6	2	558	0.011	6	0.0	0.0	6.524	A
B-A	108	27	540	0.199	108	0.3	0.3	8.341	A
C-AB	7	2	783	0.009	7	0.0	0.0	4.740	A
C-A	337	84			337				
A-B	139	35			139				
A-C	163	41			163				

Existing Layout - 2028 Baseline Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.62	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	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (S)		ONE HOUR	✓	536	100.000
B - Harras Rd		ONE HOUR	✓	191	100.000
C - Red Lonning (N)		ONE HOUR	✓	350	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	166	370
	B - Harras Rd	170	0	21
	C - Red Lonning (N)	319	31	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	0	1
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	3	0	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	0.05	8.05	0.1	A	19	29
B-A	0.42	13.89	0.7	B	156	234
C-AB	0.09	5.53	0.2	A	49	74
C-A					272	408
A-B					152	228
A-C					340	509

Main Results for each time segment

16:00 - 16:15

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	16	4	533	0.030	16	0.0	0.0	6.961	A
B-A	128	32	514	0.249	127	0.0	0.3	9.265	A
C-AB	36	9	695	0.051	35	0.0	0.1	5.515	A
C-A	228	57			228				
A-B	125	31			125				
A-C	279	70			279				

16:15 - 16:30

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	19	5	508	0.037	19	0.0	0.0	7.356	A
B-A	153	38	485	0.315	152	0.3	0.5	10.789	B
C-AB	47	12	713	0.066	47	0.1	0.1	5.462	A
C-A	268	67			268				
A-B	149	37			149				
A-C	333	83			333				

16:30 - 16:45

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	23	6	471	0.049	23	0.0	0.1	8.039	A
B-A	187	47	446	0.419	186	0.5	0.7	13.781	B
C-AB	65	16	740	0.088	65	0.1	0.2	5.407	A
C-A	320	80			320				
A-B	183	46			183				
A-C	407	102			407				

16:45 - 17:00

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	23	6	470	0.049	23	0.1	0.1	8.050	A
B-A	187	47	446	0.419	187	0.7	0.7	13.887	B
C-AB	65	16	740	0.088	65	0.2	0.2	5.416	A
C-A	320	80			320				
A-B	183	46			183				
A-C	407	102			407				

17:00 - 17:15

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	19	5	508	0.037	19	0.1	0.0	7.369	A
B-A	153	38	485	0.315	154	0.7	0.5	10.889	B
C-AB	47	12	713	0.066	47	0.2	0.1	5.482	A
C-A	268	67			268				
A-B	149	37			149				
A-C	333	83			333				

17:15 - 17:30

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	16	4	532	0.030	16	0.0	0.0	6.973	A
B-A	128	32	514	0.249	129	0.5	0.3	9.358	A
C-AB	36	9	695	0.052	36	0.1	0.1	5.527	A
C-A	228	57			228				
A-B	125	31			125				
A-C	279	70			279				

Existing Layout - 2028 with Dev. Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		2.40	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)	Run automatically
D9	2028 with Dev. Flows	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 - Red Lonning (S)		ONE HOUR	✓	416	100.000
B - Harras Rd		ONE HOUR	✓	198	100.000
C - Red Lonning (N)		ONE HOUR	✓	459	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	199	217
	B - Harras Rd	183	0	15
	C - Red Lonning (N)	451	8	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	1	5
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	5	0	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	0.03	7.48	0.0	A	14	21
B-A	0.42	13.04	0.7	B	168	252
C-AB	0.02	4.78	0.0	A	15	23
C-A					406	609
A-B					183	274
A-C					199	299

Main Results for each time segment

07:45 - 08:00

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	11	3	550	0.021	11	0.0	0.0	6.677	A
B-A	138	34	536	0.257	136	0.0	0.3	8.972	A
C-AB	11	3	781	0.014	11	0.0	0.0	4.768	A
C-A	335	84			335				
A-B	150	37			150				
A-C	163	41			163				

08:00 - 08:15

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	13	3	530	0.025	13	0.0	0.0	6.969	A
B-A	165	41	512	0.322	164	0.3	0.5	10.340	B
C-AB	14	4	817	0.018	14	0.0	0.0	4.587	A
C-A	398	100			398				
A-B	179	45			179				
A-C	195	49			195				

08:15 - 08:30

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	17	4	498	0.033	16	0.0	0.0	7.474	A
B-A	201	50	477	0.422	200	0.5	0.7	12.950	B
C-AB	21	5	868	0.024	21	0.0	0.0	4.362	A
C-A	485	121			485				
A-B	219	55			219				
A-C	239	60			239				

08:30 - 08:45

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	17	4	498	0.033	17	0.0	0.0	7.481	A
B-A	201	50	477	0.422	201	0.7	0.7	13.039	B
C-AB	21	5	868	0.024	21	0.0	0.0	4.369	A
C-A	485	121			485				
A-B	219	55			219				
A-C	239	60			239				

08:45 - 09:00

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	13	3	529	0.025	14	0.0	0.0	6.977	A
B-A	165	41	512	0.322	165	0.7	0.5	10.430	B
C-AB	14	4	817	0.018	14	0.0	0.0	4.606	A
C-A	398	100			398				
A-B	179	45			179				
A-C	195	49			195				

09:00 - 09:15

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	11	3	550	0.021	11	0.0	0.0	6.688	A
B-A	138	34	536	0.257	138	0.5	0.4	9.057	A
C-AB	11	3	781	0.014	11	0.0	0.0	4.777	A
C-A	335	84			335				
A-B	150	37			150				
A-C	163	41			163				

Existing Layout - 2028 with Dev. Flows, 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	Harras Road / Red Lonning priority junction	T-Junction	Two-way		3.08	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (S)		ONE HOUR	✓	572	100.000
B - Harras Rd		ONE HOUR	✓	213	100.000
C - Red Lonning (N)		ONE HOUR	✓	356	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	202	370
	B - Harras Rd	189	0	24
	C - Red Lonning (N)	319	37	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (S)	B - Harras Rd	C - Red Lonning (N)
From	A - Red Lonning (S)	0	0	1
	B - Harras Rd	0	0	0
	C - Red Lonning (N)	3	0	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	0.06	8.40	0.1	A	22	33
B-A	0.47	15.59	0.9	C	173	260
C-AB	0.11	5.64	0.2	A	59	89
C-A					267	401
A-B					185	278
A-C					340	509

Main Results for each time segment

16:00 - 16:15

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	18	5	526	0.034	18	0.0	0.0	7.084	A
B-A	142	36	509	0.280	141	0.0	0.4	9.744	A
C-AB	43	11	689	0.062	42	0.0	0.1	5.618	A
C-A	225	56			225				
A-B	152	38			152				
A-C	279	70			279				

16:15 - 16:30

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	499	0.043	22	0.0	0.0	7.538	A
B-A	170	42	479	0.354	169	0.4	0.5	11.583	B
C-AB	56	14	707	0.079	56	0.1	0.1	5.595	A
C-A	264	66			264				
A-B	182	45			182				
A-C	333	83			333				

16:30 - 16:45

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	26	7	456	0.058	26	0.0	0.1	8.381	A
B-A	208	52	439	0.474	207	0.5	0.9	15.414	C
C-AB	79	20	733	0.107	78	0.1	0.2	5.577	A
C-A	313	78			313				
A-B	222	56			222				
A-C	407	102			407				

16:45 - 17:00

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	26	7	455	0.058	26	0.1	0.1	8.399	A
B-A	208	52	439	0.474	208	0.9	0.9	15.585	C
C-AB	79	20	733	0.107	79	0.2	0.2	5.586	A
C-A	313	78			313				
A-B	222	56			222				
A-C	407	102			407				

17:00 - 17:15

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	498	0.043	22	0.1	0.0	7.556	A
B-A	170	42	479	0.354	171	0.9	0.6	11.735	B
C-AB	56	14	707	0.080	57	0.2	0.2	5.616	A
C-A	264	66			264				
A-B	182	45			182				
A-C	333	83			333				

17:15 - 17:30

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	18	5	525	0.034	18	0.0	0.0	7.098	A
B-A	142	36	509	0.280	143	0.6	0.4	9.863	A
C-AB	43	11	690	0.062	43	0.2	0.1	5.635	A
C-A	225	56			225				
A-B	152	38			152				
A-C	279	70			279				



Appendix H – JUNCTIONS 9 Output (J3)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: J3.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J3 Red Lonning_Caldbeck Rd Pri

Report generation date: 22/10/2018 10:50:22

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-AC	0.3	8.82	0.25	4.13	0.2	8.27	0.18	3.31
Stream C-AB	0.4	7.20	0.24		0.3	6.95	0.19	
	Existing Layout - 2023 Baseline Flows							
Stream B-AC	0.4	9.02	0.26	4.23	0.2	8.44	0.19	3.39
Stream C-AB	0.4	7.33	0.26		0.3	7.04	0.20	
	Existing Layout - 2023 with Dev. Flows							
Stream B-AC	0.8	13.56	0.44	6.01	0.4	10.04	0.26	3.70
Stream C-AB	0.4	7.42	0.26		0.3	7.25	0.21	
	Existing Layout - 2028 Baseline Flows							
Stream B-AC	0.4	9.18	0.27	4.30	0.2	8.55	0.19	3.43
Stream C-AB	0.4	7.41	0.27		0.3	7.10	0.21	
	Existing Layout - 2028 with Dev. Flows							
Stream B-AC	0.9	13.89	0.45	6.13	0.4	10.22	0.27	3.77
Stream C-AB	0.4	7.50	0.27		0.3	7.31	0.22	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Red Lonning / Caldbeck Road priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		4.13	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Red Lonning (N)		Major
B	Caldbeck Rd		Minor
C	Red Lonning (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Red Lonning (S)	6.80			90.0	✓	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 - Caldbeck Rd	One lane	3.30	36	28

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	518	0.091	0.230	0.145	0.329
1	B-C	661	0.098	0.247	-	-
1	C-B	626	0.234	0.234	-	-

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	2018 Surveyed Flows	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 - Red Lonning (N)		ONE HOUR	✓	165	100.000
B - Caldbeck Rd		ONE HOUR	✓	127	100.000
C - Red Lonning (S)		ONE HOUR	✓	229	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	50	115
	B - Caldbeck Rd	30	0	97
	C - Red Lonning (S)	108	121	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	0
	B - Caldbeck Rd	11	0	1
	C - Red Lonning (S)	1	0	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-AC	0.25	8.82	0.3	A	117	175
C-AB	0.24	7.20	0.4	A	132	197
C-A					79	118
A-B					46	69
A-C					106	158

Main Results for each time segment

07:45 - 08:00

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-AC	96	24	580	0.165	95	0.0	0.2	7.637	A
C-AB	104	26	651	0.160	103	0.0	0.2	6.570	A
C-A	68	17			68				
A-B	38	9			38				
A-C	87	22			87				

08:00 - 08:15

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-AC	114	29	572	0.200	114	0.2	0.3	8.102	A
C-AB	128	32	657	0.195	128	0.2	0.3	6.813	A
C-A	78	20			78				
A-B	45	11			45				
A-C	103	26			103				

08:15 - 08:30

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-AC	140	35	561	0.249	139	0.3	0.3	8.807	A
C-AB	162	41	664	0.245	162	0.3	0.4	7.187	A
C-A	90	22			90				
A-B	55	14			55				
A-C	127	32			127				

08:30 - 08:45

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-AC	140	35	561	0.249	140	0.3	0.3	8.822	A
C-AB	163	41	664	0.245	163	0.4	0.4	7.198	A
C-A	90	22			90				
A-B	55	14			55				
A-C	127	32			127				

08:45 - 09:00

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-AC	114	29	572	0.200	114	0.3	0.3	8.123	A
C-AB	128	32	657	0.195	128	0.4	0.3	6.834	A
C-A	78	19			78				
A-B	45	11			45				
A-C	103	26			103				

09:00 - 09:15

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-AC	96	24	580	0.165	96	0.3	0.2	7.670	A
C-AB	104	26	651	0.160	104	0.3	0.2	6.598	A
C-A	68	17			68				
A-B	38	9			38				
A-C	87	22			87				

Existing Layout - 2018 Surveyed Flows , 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		3.31	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
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (N)		ONE HOUR	✓	178	100.000
B - Caldbeck Rd		ONE HOUR	✓	85	100.000
C - Red Lonning (S)		ONE HOUR	✓	179	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	54	124
	B - Caldbeck Rd	32	0	53
	C - Red Lonning (S)	83	96	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	1
	B - Caldbeck Rd	3	0	0
	C - Red Lonning (S)	1	0	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-AC	0.18	8.27	0.2	A	78	117
C-AB	0.19	6.95	0.3	A	100	151
C-A					64	96
A-B					50	74
A-C					114	171

Main Results for each time segment

16:00 - 16:15

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-AC	64	16	555	0.115	63	0.0	0.1	7.398	A
C-AB	80	20	637	0.126	80	0.0	0.2	6.462	A
C-A	55	14			55				
A-B	41	10			41				
A-C	93	23			93				

16:15 - 16:30

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-AC	76	19	546	0.140	76	0.1	0.2	7.746	A
C-AB	98	24	639	0.153	98	0.2	0.2	6.659	A
C-A	63	16			63				
A-B	49	12			49				
A-C	111	28			111				

16:30 - 16:45

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-AC	94	23	534	0.175	93	0.2	0.2	8.259	A
C-AB	123	31	642	0.192	123	0.2	0.3	6.943	A
C-A	74	18			74				
A-B	59	15			59				
A-C	137	34			137				

16:45 - 17:00

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-AC	94	23	534	0.175	94	0.2	0.2	8.267	A
C-AB	123	31	642	0.192	123	0.3	0.3	6.953	A
C-A	74	18			74				
A-B	59	15			59				
A-C	137	34			137				

17:00 - 17:15

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-AC	76	19	546	0.140	77	0.2	0.2	7.758	A
C-AB	98	24	639	0.153	98	0.3	0.2	6.669	A
C-A	63	16			63				
A-B	49	12			49				
A-C	111	28			111				

17:15 - 17:30

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-AC	64	16	555	0.115	64	0.2	0.1	7.422	A
C-AB	80	20	637	0.126	80	0.2	0.2	6.482	A
C-A	55	14			55				
A-B	41	10			41				
A-C	93	23			93				

Existing Layout - 2023 Baseline Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		4.23	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	2023 Baseline Flows	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 - Red Lonning (N)		ONE HOUR	✓	174	100.000
B - Caldbeck Rd		ONE HOUR	✓	133	100.000
C - Red Lonning (S)		ONE HOUR	✓	242	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	53	121
	B - Caldbeck Rd	31	0	102
	C - Red Lonning (S)	114	128	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	0
	B - Caldbeck Rd	11	0	1
	C - Red Lonning (S)	1	0	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-AC	0.26	9.02	0.4	A	122	183
C-AB	0.26	7.33	0.4	A	140	211
C-A					82	122
A-B					49	73
A-C					111	167

Main Results for each time segment

07:45 - 08:00

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-AC	100	25	579	0.173	99	0.0	0.2	7.729	A
C-AB	111	28	653	0.170	110	0.0	0.2	6.633	A
C-A	71	18			71				
A-B	40	10			40				
A-C	91	23			91				

08:00 - 08:15

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-AC	120	30	570	0.210	119	0.2	0.3	8.232	A
C-AB	136	34	658	0.207	136	0.2	0.3	6.902	A
C-A	81	20			81				
A-B	48	12			48				
A-C	109	27			109				

08:15 - 08:30

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-AC	146	37	558	0.262	146	0.3	0.4	9.001	A
C-AB	174	43	666	0.261	173	0.3	0.4	7.315	A
C-A	93	23			93				
A-B	58	15			58				
A-C	133	33			133				

08:30 - 08:45

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-AC	146	37	558	0.262	146	0.4	0.4	9.018	A
C-AB	174	43	666	0.261	174	0.4	0.4	7.332	A
C-A	92	23			92				
A-B	58	15			58				
A-C	133	33			133				

08:45 - 09:00

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-AC	120	30	570	0.210	120	0.4	0.3	8.254	A
C-AB	137	34	659	0.207	137	0.4	0.3	6.925	A
C-A	81	20			81				
A-B	48	12			48				
A-C	109	27			109				

09:00 - 09:15

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-AC	100	25	579	0.173	100	0.3	0.2	7.767	A
C-AB	111	28	653	0.170	111	0.3	0.2	6.665	A
C-A	71	18			71				
A-B	40	10			40				
A-C	91	23			91				

Existing Layout - 2023 Baseline Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		3.39	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (N)		ONE HOUR	✓	187	100.000
B - Caldbeck Rd		ONE HOUR	✓	90	100.000
C - Red Lonning (S)		ONE HOUR	✓	188	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	57	130
	B - Caldbeck Rd	34	0	56
	C - Red Lonning (S)	87	101	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	1
	B - Caldbeck Rd	3	0	0
	C - Red Lonning (S)	1	0	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-AC	0.19	8.44	0.2	A	83	124
C-AB	0.20	7.04	0.3	A	106	160
C-A					66	99
A-B					52	78
A-C					119	179

Main Results for each time segment

16:00 - 16:15

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-AC	68	17	552	0.123	67	0.0	0.1	7.494	A
C-AB	85	21	637	0.133	84	0.0	0.2	6.511	A
C-A	57	14			57				
A-B	43	11			43				
A-C	98	24			98				

16:15 - 16:30

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-AC	81	20	543	0.149	81	0.1	0.2	7.869	A
C-AB	104	26	639	0.162	103	0.2	0.2	6.723	A
C-A	65	16			65				
A-B	51	13			51				
A-C	117	29			117				

16:30 - 16:45

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-AC	99	25	530	0.187	99	0.2	0.2	8.433	A
C-AB	131	33	643	0.203	131	0.2	0.3	7.034	A
C-A	76	19			76				
A-B	63	16			63				
A-C	143	36			143				

16:45 - 17:00

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-AC	99	25	530	0.187	99	0.2	0.2	8.442	A
C-AB	131	33	643	0.203	131	0.3	0.3	7.044	A
C-A	76	19			76				
A-B	63	16			63				
A-C	143	36			143				

17:00 - 17:15

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-AC	81	20	543	0.149	81	0.2	0.2	7.884	A
C-AB	104	26	640	0.162	104	0.3	0.2	6.735	A
C-A	65	16			65				
A-B	51	13			51				
A-C	117	29			117				

17:15 - 17:30

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-AC	68	17	552	0.123	68	0.2	0.1	7.518	A
C-AB	85	21	637	0.133	85	0.2	0.2	6.534	A
C-A	57	14			57				
A-B	43	11			43				
A-C	98	24			98				

Existing Layout - 2023 with Dev. Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	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)	Run automatically
D5	2023 with Dev. Flows	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 - Red Lonning (N)		ONE HOUR	✓	197	100.000
B - Caldbeck Rd		ONE HOUR	✓	199	100.000
C - Red Lonning (S)		ONE HOUR	✓	242	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	76	121
	B - Caldbeck Rd	97	0	102
	C - Red Lonning (S)	114	128	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	0
	B - Caldbeck Rd	11	0	1
	C - Red Lonning (S)	1	0	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-AC	0.44	13.56	0.8	B	183	274
C-AB	0.26	7.42	0.4	A	141	211
C-A					81	122
A-B					70	105
A-C					111	167

Main Results for each time segment

07:45 - 08:00

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-AC	150	37	527	0.284	148	0.0	0.4	10.005	B
C-AB	111	28	649	0.171	110	0.0	0.2	6.681	A
C-A	71	18			71				
A-B	57	14			57				
A-C	91	23			91				

08:00 - 08:15

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-AC	179	45	515	0.347	178	0.4	0.6	11.266	B
C-AB	137	34	654	0.209	136	0.2	0.3	6.965	A
C-A	81	20			81				
A-B	68	17			68				
A-C	109	27			109				

08:15 - 08:30

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-AC	219	55	500	0.439	218	0.6	0.8	13.461	B
C-AB	174	44	661	0.264	174	0.3	0.4	7.404	A
C-A	92	23			92				
A-B	84	21			84				
A-C	133	33			133				

08:30 - 08:45

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-AC	219	55	499	0.439	219	0.8	0.8	13.558	B
C-AB	174	44	661	0.264	174	0.4	0.4	7.421	A
C-A	92	23			92				
A-B	84	21			84				
A-C	133	33			133				

08:45 - 09:00

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-AC	179	45	515	0.347	180	0.8	0.6	11.376	B
C-AB	137	34	654	0.209	137	0.4	0.3	6.987	A
C-A	81	20			81				
A-B	68	17			68				
A-C	109	27			109				

09:00 - 09:15

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-AC	150	37	526	0.285	150	0.6	0.4	10.130	B
C-AB	111	28	649	0.171	111	0.3	0.2	6.711	A
C-A	71	18			71				
A-B	57	14			57				
A-C	91	23			91				

Existing Layout - 2023 with Dev. Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		3.70	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)	Run automatically
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (N)		ONE HOUR	✓	244	100.000
B - Caldbeck Rd		ONE HOUR	✓	119	100.000
C - Red Lonning (S)		ONE HOUR	✓	188	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	114	130
	B - Caldbeck Rd	63	0	56
	C - Red Lonning (S)	87	101	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	1
	B - Caldbeck Rd	3	0	0
	C - Red Lonning (S)	1	0	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-AC	0.26	10.04	0.4	B	109	164
C-AB	0.21	7.25	0.3	A	107	160
C-A					66	99
A-B					105	157
A-C					119	179

Main Results for each time segment

16:00 - 16:15

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-AC	90	22	522	0.172	89	0.0	0.2	8.430	A
C-AB	85	21	627	0.135	84	0.0	0.2	6.629	A
C-A	57	14			57				
A-B	86	21			86				
A-C	98	24			98				

16:15 - 16:30

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-AC	107	27	511	0.210	107	0.2	0.3	9.047	A
C-AB	104	26	628	0.165	104	0.2	0.2	6.874	A
C-A	65	16			65				
A-B	102	26			102				
A-C	117	29			117				

16:30 - 16:45

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-AC	131	33	495	0.265	131	0.3	0.4	10.017	B
C-AB	131	33	629	0.209	131	0.2	0.3	7.238	A
C-A	76	19			76				
A-B	126	31			126				
A-C	143	36			143				

16:45 - 17:00

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-AC	131	33	495	0.265	131	0.4	0.4	10.038	B
C-AB	131	33	629	0.209	131	0.3	0.3	7.249	A
C-A	76	19			76				
A-B	126	31			126				
A-C	143	36			143				

17:00 - 17:15

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-AC	107	27	510	0.210	107	0.4	0.3	9.079	A
C-AB	104	26	628	0.165	104	0.3	0.2	6.889	A
C-A	65	16			65				
A-B	102	26			102				
A-C	117	29			117				

17:15 - 17:30

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-AC	90	22	521	0.172	90	0.3	0.2	8.475	A
C-AB	85	21	627	0.135	85	0.2	0.2	6.650	A
C-A	57	14			57				
A-B	86	21			86				
A-C	98	24			98				

Existing Layout - 2028 Baseline Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		4.30	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	2028 Baseline Flows	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 - Red Lonning (N)		ONE HOUR	✓	180	100.000
B - Caldbeck Rd		ONE HOUR	✓	138	100.000
C - Red Lonning (S)		ONE HOUR	✓	250	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	55	125
	B - Caldbeck Rd	32	0	106
	C - Red Lonning (S)	118	132	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	0
	B - Caldbeck Rd	11	0	1
	C - Red Lonning (S)	1	0	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-AC	0.27	9.18	0.4	A	127	190
C-AB	0.27	7.41	0.4	A	146	219
C-A					84	125
A-B					50	76
A-C					115	172

Main Results for each time segment

07:45 - 08:00

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-AC	104	26	578	0.180	103	0.0	0.2	7.808	A
C-AB	115	29	654	0.176	114	0.0	0.2	6.670	A
C-A	73	18			73				
A-B	41	10			41				
A-C	94	24			94				

08:00 - 08:15

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-AC	124	31	569	0.218	124	0.2	0.3	8.341	A
C-AB	142	35	660	0.215	141	0.2	0.3	6.954	A
C-A	83	21			83				
A-B	49	12			49				
A-C	112	28			112				

08:15 - 08:30

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-AC	152	38	556	0.273	152	0.3	0.4	9.163	A
C-AB	181	45	668	0.271	180	0.3	0.4	7.395	A
C-A	95	24			95				
A-B	61	15			61				
A-C	138	34			138				

08:30 - 08:45

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-AC	152	38	556	0.273	152	0.4	0.4	9.182	A
C-AB	181	45	668	0.271	181	0.4	0.4	7.412	A
C-A	94	24			94				
A-B	61	15			61				
A-C	138	34			138				

08:45 - 09:00

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-AC	124	31	569	0.218	124	0.4	0.3	8.367	A
C-AB	142	35	660	0.215	142	0.4	0.3	6.976	A
C-A	83	21			83				
A-B	49	12			49				
A-C	112	28			112				

09:00 - 09:15

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-AC	104	26	578	0.180	104	0.3	0.2	7.848	A
C-AB	115	29	654	0.176	115	0.3	0.2	6.701	A
C-A	73	18			73				
A-B	41	10			41				
A-C	94	24			94				

Existing Layout - 2028 Baseline Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		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)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (N)		ONE HOUR	✓	193	100.000
B - Caldbeck Rd		ONE HOUR	✓	93	100.000
C - Red Lonning (S)		ONE HOUR	✓	194	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	59	134
	B - Caldbeck Rd	35	0	58
	C - Red Lonning (S)	90	104	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	1
	B - Caldbeck Rd	3	0	0
	C - Red Lonning (S)	1	0	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-AC	0.19	8.55	0.2	A	85	128
C-AB	0.21	7.10	0.3	A	110	165
C-A					68	102
A-B					54	81
A-C					123	184

Main Results for each time segment

16:00 - 16:15

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-AC	70	18	551	0.127	69	0.0	0.1	7.545	A
C-AB	88	22	638	0.137	87	0.0	0.2	6.539	A
C-A	58	15			58				
A-B	44	11			44				
A-C	101	25			101				

16:15 - 16:30

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-AC	84	21	542	0.154	83	0.1	0.2	7.941	A
C-AB	107	27	640	0.167	107	0.2	0.2	6.761	A
C-A	67	17			67				
A-B	53	13			53				
A-C	120	30			120				

16:30 - 16:45

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-AC	102	26	528	0.194	102	0.2	0.2	8.536	A
C-AB	135	34	644	0.210	135	0.2	0.3	7.088	A
C-A	78	20			78				
A-B	65	16			65				
A-C	148	37			148				

16:45 - 17:00

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-AC	102	26	528	0.194	102	0.2	0.2	8.545	A
C-AB	136	34	644	0.211	136	0.3	0.3	7.099	A
C-A	78	20			78				
A-B	65	16			65				
A-C	148	37			148				

17:00 - 17:15

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-AC	84	21	542	0.154	84	0.2	0.2	7.955	A
C-AB	107	27	640	0.167	107	0.3	0.2	6.776	A
C-A	67	17			67				
A-B	53	13			53				
A-C	120	30			120				

17:15 - 17:30

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-AC	70	18	551	0.127	70	0.2	0.1	7.573	A
C-AB	88	22	638	0.138	88	0.2	0.2	6.562	A
C-A	58	15			58				
A-B	44	11			44				
A-C	101	25			101				

Existing Layout - 2028 with Dev. Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		6.13	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)	Run automatically
D9	2028 with Dev. Flows	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 - Red Lonning (N)		ONE HOUR	✓	203	100.000
B - Caldbeck Rd		ONE HOUR	✓	204	100.000
C - Red Lonning (S)		ONE HOUR	✓	250	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	78	125
	B - Caldbeck Rd	98	0	106
	C - Red Lonning (S)	118	132	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	0
	B - Caldbeck Rd	11	0	1
	C - Red Lonning (S)	1	0	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-AC	0.45	13.89	0.9	B	187	281
C-AB	0.27	7.50	0.4	A	146	219
C-A					83	125
A-B					72	107
A-C					115	172

Main Results for each time segment

07:45 - 08:00

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-AC	154	38	526	0.292	152	0.0	0.4	10.111	B
C-AB	115	29	650	0.177	114	0.0	0.2	6.717	A
C-A	73	18			73				
A-B	59	15			59				
A-C	94	24			94				

08:00 - 08:15

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-AC	183	46	514	0.357	183	0.4	0.6	11.439	B
C-AB	142	35	655	0.216	141	0.2	0.3	7.018	A
C-A	83	21			83				
A-B	70	18			70				
A-C	112	28			112				

08:15 - 08:30

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-AC	225	56	498	0.451	224	0.6	0.8	13.779	B
C-AB	181	45	662	0.273	181	0.3	0.4	7.485	A
C-A	94	24			94				
A-B	86	21			86				
A-C	138	34			138				

08:30 - 08:45

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-AC	225	56	498	0.451	225	0.8	0.9	13.887	B
C-AB	181	45	662	0.273	181	0.4	0.4	7.500	A
C-A	94	24			94				
A-B	86	21			86				
A-C	138	34			138				

08:45 - 09:00

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-AC	183	46	514	0.357	184	0.9	0.6	11.560	B
C-AB	142	35	655	0.217	142	0.4	0.3	7.044	A
C-A	83	21			83				
A-B	70	18			70				
A-C	112	28			112				

09:00 - 09:15

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-AC	154	38	526	0.292	154	0.6	0.4	10.241	B
C-AB	115	29	650	0.177	116	0.3	0.2	6.753	A
C-A	73	18			73				
A-B	59	15			59				
A-C	94	24			94				

Existing Layout - 2028 with Dev. Flows, 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	Red Lonning / Caldbeck Road priority junction	T-Junction	Two-way		3.77	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Red Lonning (N)		ONE HOUR	✓	250	100.000
B - Caldbeck Rd		ONE HOUR	✓	123	100.000
C - Red Lonning (S)		ONE HOUR	✓	194	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	116	134
	B - Caldbeck Rd	65	0	58
	C - Red Lonning (S)	90	104	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Red Lonning (N)	B - Caldbeck Rd	C - Red Lonning (S)
From	A - Red Lonning (N)	0	4	1
	B - Caldbeck Rd	3	0	0
	C - Red Lonning (S)	1	0	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-AC	0.27	10.22	0.4	B	113	169
C-AB	0.22	7.31	0.3	A	110	166
C-A					68	101
A-B					106	160
A-C					123	184

Main Results for each time segment

16:00 - 16:15

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-AC	93	23	520	0.178	92	0.0	0.2	8.517	A
C-AB	88	22	628	0.140	87	0.0	0.2	6.656	A
C-A	58	15			58				
A-B	87	22			87				
A-C	101	25			101				

16:15 - 16:30

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-AC	111	28	509	0.217	110	0.2	0.3	9.170	A
C-AB	107	27	629	0.171	107	0.2	0.2	6.913	A
C-A	67	17			67				
A-B	104	26			104				
A-C	120	30			120				

16:30 - 16:45

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-AC	135	34	493	0.275	135	0.3	0.4	10.201	B
C-AB	136	34	630	0.216	136	0.2	0.3	7.296	A
C-A	78	19			78				
A-B	128	32			128				
A-C	148	37			148				

16:45 - 17:00

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-AC	135	34	493	0.275	135	0.4	0.4	10.225	B
C-AB	136	34	630	0.216	136	0.3	0.3	7.307	A
C-A	78	19			78				
A-B	128	32			128				
A-C	148	37			148				

17:00 - 17:15

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-AC	111	28	509	0.217	111	0.4	0.3	9.203	A
C-AB	107	27	629	0.171	108	0.3	0.2	6.927	A
C-A	67	17			67				
A-B	104	26			104				
A-C	120	30			120				

17:15 - 17:30

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-AC	93	23	520	0.178	93	0.3	0.2	8.564	A
C-AB	88	22	628	0.140	88	0.2	0.2	6.680	A
C-A	58	15			58				
A-B	87	22			87				
A-C	101	25			101				



Appendix I – JUNCTIONS 9 Output (J4)

Junctions 9	
ARCADY 9 - Roundabout Module	
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Filename: J4.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J4 Red Lonning_Moresby Rd Rdt

Report generation date: 22/10/2018 10:52:29

-
- »Existing Layout - 2018 Surveyed Flows , AM
 - »Existing Layout - 2018 Surveyed Flows , PM
 - »Existing Layout - 2023 Baseline Flows, AM
 - »Existing Layout - 2023 Baseline Flows, PM
 - »Existing Layout - 2023 with Dev. Flows, AM
 - »Existing Layout - 2023 with Dev. Flows, PM
 - »Existing Layout - 2028 Baseline Flows, AM
 - »Existing Layout - 2028 Baseline Flows, PM
 - »Existing Layout - 2028 with Dev. Flows, AM
 - »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
1 - Moresby Parks Rd (N)	0.3	3.17	0.24	2.99	0.2	2.87	0.18	3.43
2 - Access to Field	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Moresby Parks Rd (S)	0.3	2.86	0.25		0.8	3.73	0.44	
4 - Red Lonning	0.3	2.97	0.22		0.3	3.21	0.23	
	Existing Layout - 2023 Baseline Flows							
1 - Moresby Parks Rd (N)	0.4	3.34	0.27	3.14	0.2	2.95	0.20	3.63
2 - Access to Field	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Moresby Parks Rd (S)	0.4	2.95	0.27		0.9	4.01	0.47	
4 - Red Lonning	0.4	3.14	0.27		0.3	3.35	0.25	
	Existing Layout - 2023 with Dev. Flows							
1 - Moresby Parks Rd (N)	0.4	3.43	0.27	3.22	0.3	3.00	0.20	3.75
2 - Access to Field	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Moresby Parks Rd (S)	0.4	2.99	0.28		1.0	4.18	0.49	
4 - Red Lonning	0.4	3.27	0.29		0.4	3.41	0.27	
	Existing Layout - 2028 Baseline Flows							
1 - Moresby Parks Rd (N)	0.4	3.41	0.28	3.19	0.3	2.99	0.20	3.72
2 - Access to Field	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Moresby Parks Rd (S)	0.4	2.99	0.28		1.0	4.13	0.49	
4 - Red Lonning	0.4	3.19	0.27		0.4	3.42	0.26	
	Existing Layout - 2028 with Dev. Flows							
1 - Moresby Parks Rd (N)	0.4	3.50	0.28	3.27	0.3	3.04	0.21	3.84
2 - Access to Field	0.0	0.00	0.00		0.0	0.00	0.00	
3 - Moresby Parks Rd (S)	0.4	3.03	0.28		1.0	4.31	0.51	
4 - Red Lonning	0.5	3.32	0.30		0.4	3.48	0.28	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Red Lonning / Moresby Road roundabout
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	2.99	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Moresby Parks Rd (N)	
2	Access to Field	
3	Moresby Parks Rd (S)	
4	Red Lonning	

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 - Moresby Parks Rd (N)	3.81	6.99	14.4	19.5	40.0	28.2	
2 - Access to Field	4.42	6.86	16.9	25.7	40.0	18.9	
3 - Moresby Parks Rd (S)	3.37	7.24	17.2	28.1	40.0	25.4	
4 - Red Lonning	3.73	7.16	19.2	29.5	40.0	36.9	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Moresby Parks Rd (N)	0.649	1727
2 - Access to Field	0.704	1936
3 - Moresby Parks Rd (S)	0.662	1754
4 - Red Lonning	0.655	1777

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	2018 Surveyed Flows	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 - Moresby Parks Rd (N)		ONE HOUR	✓	335	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	381	100.000
4 - Red Lonning		ONE HOUR	✓	334	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	1	1	262	71
	2 - Access to Field	1	0	1	1
	3 - Moresby Parks Rd (S)	195	0	1	185
	4 - Red Lonning	34	1	299	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	3
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	0	0	0	4
	4 - Red Lonning	0	0	5	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 - Moresby Parks Rd (N)	0.24	3.17	0.3	A	307	461
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.25	2.86	0.3	A	350	524
4 - Red Lonning	0.22	2.97	0.3	A	306	460

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 - Moresby Parks Rd (N)	252	63	226	1580	0.160	251	173	0.0	0.2	2.724	A
2 - Access to Field	0	0	476	1601	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	287	72	54	1718	0.167	286	422	0.0	0.2	2.561	A
4 - Red Lonning	251	63	148	1680	0.150	251	192	0.0	0.2	2.629	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 - Moresby Parks Rd (N)	301	75	270	1552	0.194	301	207	0.2	0.2	2.896	A
2 - Access to Field	0	0	570	1535	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	343	86	65	1711	0.200	342	505	0.2	0.3	2.680	A
4 - Red Lonning	300	75	177	1661	0.181	300	230	0.2	0.2	2.762	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 - Moresby Parks Rd (N)	369	92	331	1512	0.244	369	253	0.2	0.3	3.167	A
2 - Access to Field	0	0	697	1445	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	419	105	79	1701	0.247	419	618	0.3	0.3	2.861	A
4 - Red Lonning	368	92	217	1635	0.225	367	282	0.2	0.3	2.966	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 - Moresby Parks Rd (N)	369	92	331	1512	0.244	369	253	0.3	0.3	3.167	A
2 - Access to Field	0	0	698	1445	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	419	105	79	1701	0.247	419	619	0.3	0.3	2.861	A
4 - Red Lonning	368	92	217	1635	0.225	368	282	0.3	0.3	2.966	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 - Moresby Parks Rd (N)	301	75	271	1551	0.194	301	207	0.3	0.2	2.898	A
2 - Access to Field	0	0	571	1534	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	343	86	65	1711	0.200	343	506	0.3	0.3	2.683	A
4 - Red Lonning	300	75	177	1661	0.181	301	230	0.3	0.2	2.764	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 - Moresby Parks Rd (N)	252	63	227	1580	0.160	252	173	0.2	0.2	2.728	A
2 - Access to Field	0	0	478	1600	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	287	72	54	1718	0.167	287	423	0.3	0.2	2.566	A
4 - Red Lonning	251	63	148	1680	0.150	252	193	0.2	0.2	2.632	A

Existing Layout - 2018 Surveyed Flows , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	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)	Run automatically
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Parks Rd (N)		ONE HOUR	✓	257	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	682	100.000
4 - Red Lonning		ONE HOUR	✓	308	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	1	217	39
	2 - Access to Field	1	0	2	0
	3 - Moresby Parks Rd (S)	412	1	0	269
	4 - Red Lonning	44	1	262	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	0
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	1	0	0	1
	4 - Red Lonning	0	0	2	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 - Moresby Parks Rd (N)	0.18	2.87	0.2	A	236	354
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.44	3.73	0.8	A	626	939
4 - Red Lonning	0.23	3.21	0.3	A	283	424

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd (N)	193	48	199	1598	0.121	193	342	0.0	0.1	2.562	A
2 - Access to Field	0	0	390	1662	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	513	128	30	1734	0.296	512	360	0.0	0.4	2.971	A
4 - Red Lonning	232	58	310	1574	0.147	231	232	0.0	0.2	2.725	A

16:15 - 16:30

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 - Moresby Parks Rd (N)	231	58	238	1573	0.147	231	410	0.1	0.2	2.682	A
2 - Access to Field	0	0	466	1608	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	613	153	36	1730	0.354	613	430	0.4	0.6	3.252	A
4 - Red Lonning	277	69	371	1534	0.181	277	278	0.2	0.2	2.911	A

16:30 - 16:45

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 - Moresby Parks Rd (N)	283	71	292	1538	0.184	283	501	0.2	0.2	2.868	A
2 - Access to Field	0	0	571	1534	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	751	188	44	1725	0.435	750	527	0.6	0.8	3.727	A
4 - Red Lonning	339	85	454	1480	0.229	339	340	0.2	0.3	3.209	A

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 - Moresby Parks Rd (N)	283	71	292	1538	0.184	283	502	0.2	0.2	2.868	A
2 - Access to Field	0	0	571	1534	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	751	188	44	1725	0.435	751	527	0.8	0.8	3.733	A
4 - Red Lonning	339	85	455	1479	0.229	339	340	0.3	0.3	3.210	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 - Moresby Parks Rd (N)	231	58	238	1572	0.147	231	411	0.2	0.2	2.684	A
2 - Access to Field	0	0	467	1607	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	613	153	36	1730	0.354	614	431	0.8	0.6	3.260	A
4 - Red Lonning	277	69	372	1533	0.181	277	278	0.3	0.2	2.916	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 - Moresby Parks Rd (N)	193	48	200	1597	0.121	194	344	0.2	0.1	2.564	A
2 - Access to Field	0	0	391	1661	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	513	128	30	1734	0.296	514	361	0.6	0.4	2.981	A
4 - Red Lonning	232	58	311	1573	0.147	232	233	0.2	0.2	2.729	A

Existing Layout - 2023 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.14	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)	Run automatically
D3	2023 Baseline Flows	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 - Moresby Parks Rd (N)		ONE HOUR	✓	356	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	412	100.000
4 - Red Lonning		ONE HOUR	✓	392	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	1	1	276	78
	2 - Access to Field	1	0	1	1
	3 - Moresby Parks Rd (S)	206	0	1	205
	4 - Red Lonning	40	1	351	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	3
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	0	0	0	4
	4 - Red Lonning	0	0	5	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 - Moresby Parks Rd (N)	0.27	3.34	0.4	A	327	490
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.27	2.95	0.4	A	378	567
4 - Red Lonning	0.27	3.14	0.4	A	360	540

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 - Moresby Parks Rd (N)	268	67	265	1555	0.172	267	185	0.0	0.2	2.812	A
2 - Access to Field	0	0	531	1562	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	310	78	59	1714	0.181	309	471	0.0	0.2	2.611	A
4 - Red Lonning	295	74	156	1675	0.176	294	212	0.0	0.2	2.723	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 - Moresby Parks Rd (N)	320	80	317	1521	0.210	320	222	0.2	0.3	3.015	A
2 - Access to Field	0	0	635	1489	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	370	93	71	1707	0.217	370	564	0.2	0.3	2.745	A
4 - Red Lonning	352	88	187	1655	0.213	352	254	0.2	0.3	2.887	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 - Moresby Parks Rd (N)	392	98	388	1475	0.266	392	272	0.3	0.4	3.344	A
2 - Access to Field	0	0	778	1388	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	454	113	87	1696	0.267	453	691	0.3	0.4	2.953	A
4 - Red Lonning	432	108	229	1627	0.265	431	311	0.3	0.4	3.144	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 - Moresby Parks Rd (N)	392	98	389	1475	0.266	392	272	0.4	0.4	3.344	A
2 - Access to Field	0	0	778	1388	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	454	113	87	1696	0.267	454	691	0.4	0.4	2.953	A
4 - Red Lonning	432	108	229	1627	0.265	432	312	0.4	0.4	3.145	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 - Moresby Parks Rd (N)	320	80	318	1521	0.210	320	222	0.4	0.3	3.020	A
2 - Access to Field	0	0	636	1488	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	370	93	71	1707	0.217	371	565	0.4	0.3	2.749	A
4 - Red Lonning	352	88	187	1654	0.213	353	255	0.4	0.3	2.891	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 - Moresby Parks Rd (N)	268	67	266	1554	0.172	268	186	0.3	0.2	2.816	A
2 - Access to Field	0	0	533	1561	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	310	78	60	1714	0.181	310	473	0.3	0.2	2.616	A
4 - Red Lonning	295	74	157	1674	0.176	295	213	0.3	0.2	2.729	A

Existing Layout - 2023 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.63	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)	Run automatically
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Parks Rd (N)		ONE HOUR	✓	273	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	739	100.000
4 - Red Lonning		ONE HOUR	✓	337	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
	1 - Moresby Parks Rd (N)	0	1	228	44
	2 - Access to Field	1	0	2	0
	3 - Moresby Parks Rd (S)	433	1	0	305
	4 - Red Lonning	48	1	287	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
	1 - Moresby Parks Rd (N)	0	0	0	0
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	1	0	0	1
	4 - Red Lonning	0	0	2	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 - Moresby Parks Rd (N)	0.20	2.95	0.2	A	251	376
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.47	4.01	0.9	A	678	1017
4 - Red Lonning	0.25	3.35	0.3	A	309	464

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd (N)	206	51	218	1586	0.130	205	361	0.0	0.1	2.605	A
2 - Access to Field	0	0	420	1640	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	556	139	34	1731	0.321	554	387	0.0	0.5	3.084	A
4 - Red Lonning	254	63	326	1564	0.162	253	263	0.0	0.2	2.791	A

16:15 - 16:30

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 - Moresby Parks Rd (N)	245	61	261	1558	0.158	245	432	0.1	0.2	2.742	A
2 - Access to Field	0	0	503	1582	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	664	166	40	1727	0.385	664	463	0.5	0.6	3.418	A
4 - Red Lonning	303	76	390	1522	0.199	303	314	0.2	0.3	3.003	A

16:30 - 16:45

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 - Moresby Parks Rd (N)	301	75	319	1520	0.198	300	529	0.2	0.2	2.951	A
2 - Access to Field	0	0	616	1502	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	814	203	50	1721	0.473	813	567	0.6	0.9	3.998	A
4 - Red Lonning	371	93	477	1464	0.253	371	385	0.3	0.3	3.347	A

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 - Moresby Parks Rd (N)	301	75	319	1520	0.198	301	530	0.2	0.2	2.951	A
2 - Access to Field	0	0	617	1502	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	814	203	50	1721	0.473	814	567	0.9	0.9	4.007	A
4 - Red Lonning	371	93	478	1464	0.253	371	385	0.3	0.3	3.348	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 - Moresby Parks Rd (N)	245	61	261	1558	0.158	246	433	0.2	0.2	2.743	A
2 - Access to Field	0	0	504	1581	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	664	166	40	1727	0.385	665	463	0.9	0.6	3.428	A
4 - Red Lonning	303	76	391	1521	0.199	303	315	0.3	0.3	3.006	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 - Moresby Parks Rd (N)	206	51	219	1585	0.130	206	363	0.2	0.1	2.611	A
2 - Access to Field	0	0	422	1639	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	556	139	34	1731	0.321	557	388	0.6	0.5	3.099	A
4 - Red Lonning	254	63	327	1563	0.162	254	264	0.3	0.2	2.799	A

Existing Layout - 2023 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.22	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	2023 with Dev. Flows	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 - Moresby Parks Rd (N)		ONE HOUR	✓	359	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	424	100.000
4 - Red Lonning		ONE HOUR	✓	434	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	1	1	276	81
	2 - Access to Field	1	0	1	1
	3 - Moresby Parks Rd (S)	206	0	1	217
	4 - Red Lonning	48	1	385	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	3
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	0	0	0	4
	4 - Red Lonning	0	0	5	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 - Moresby Parks Rd (N)	0.27	3.43	0.4	A	329	494
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.28	2.99	0.4	A	389	584
4 - Red Lonning	0.29	3.27	0.4	A	398	597

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 - Moresby Parks Rd (N)	270	68	290	1539	0.176	269	191	0.0	0.2	2.854	A
2 - Access to Field	0	0	558	1543	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	319	80	62	1713	0.186	318	497	0.0	0.2	2.632	A
4 - Red Lonning	327	82	156	1675	0.195	326	224	0.0	0.3	2.785	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 - Moresby Parks Rd (N)	323	81	348	1501	0.215	322	229	0.2	0.3	3.073	A
2 - Access to Field	0	0	668	1465	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	381	95	74	1705	0.224	381	595	0.2	0.3	2.773	A
4 - Red Lonning	390	98	187	1655	0.236	390	268	0.3	0.3	2.972	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 - Moresby Parks Rd (N)	395	99	426	1451	0.272	395	281	0.3	0.4	3.432	A
2 - Access to Field	0	0	818	1360	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	467	117	90	1694	0.276	466	728	0.3	0.4	2.991	A
4 - Red Lonning	478	119	229	1627	0.294	477	328	0.3	0.4	3.269	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 - Moresby Parks Rd (N)	395	99	426	1451	0.272	395	281	0.4	0.4	3.432	A
2 - Access to Field	0	0	819	1359	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	467	117	90	1694	0.276	467	729	0.4	0.4	2.992	A
4 - Red Lonning	478	119	229	1627	0.294	478	328	0.4	0.4	3.270	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 - Moresby Parks Rd (N)	323	81	348	1501	0.215	323	229	0.4	0.3	3.076	A
2 - Access to Field	0	0	670	1465	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	381	95	74	1705	0.224	382	596	0.4	0.3	2.775	A
4 - Red Lonning	390	98	187	1654	0.236	391	268	0.4	0.3	2.974	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 - Moresby Parks Rd (N)	270	68	292	1538	0.176	271	192	0.3	0.2	2.859	A
2 - Access to Field	0	0	561	1541	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	319	80	62	1713	0.186	319	499	0.3	0.2	2.635	A
4 - Red Lonning	327	82	157	1674	0.195	327	225	0.3	0.3	2.792	A

Existing Layout - 2023 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.75	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
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Parks Rd (N)		ONE HOUR	✓	280	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	768	100.000
4 - Red Lonning		ONE HOUR	✓	356	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	1	228	51
	2 - Access to Field	1	0	2	0
	3 - Moresby Parks Rd (S)	433	1	0	334
	4 - Red Lonning	52	1	302	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	0
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	1	0	0	1
	4 - Red Lonning	0	0	2	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 - Moresby Parks Rd (N)	0.20	3.00	0.3	A	257	385
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.49	4.18	1.0	A	705	1057
4 - Red Lonning	0.27	3.41	0.4	A	327	490

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd (N)	211	53	229	1579	0.134	210	364	0.0	0.2	2.629	A
2 - Access to Field	0	0	437	1628	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	578	145	39	1728	0.335	576	398	0.0	0.5	3.152	A
4 - Red Lonning	268	67	326	1564	0.171	267	290	0.0	0.2	2.822	A

16:15 - 16:30

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 - Moresby Parks Rd (N)	252	63	274	1549	0.162	252	436	0.2	0.2	2.773	A
2 - Access to Field	0	0	523	1568	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	690	173	47	1723	0.401	690	476	0.5	0.7	3.518	A
4 - Red Lonning	320	80	390	1522	0.210	320	347	0.2	0.3	3.045	A

16:30 - 16:45

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 - Moresby Parks Rd (N)	308	77	335	1509	0.204	308	533	0.2	0.3	2.996	A
2 - Access to Field	0	0	640	1485	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	846	211	57	1716	0.493	844	583	0.7	1.0	4.166	A
4 - Red Lonning	392	98	477	1464	0.268	392	424	0.3	0.4	3.412	A

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 - Moresby Parks Rd (N)	308	77	336	1509	0.204	308	534	0.3	0.3	2.997	A
2 - Access to Field	0	0	641	1485	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	846	211	57	1716	0.493	846	584	1.0	1.0	4.178	A
4 - Red Lonning	392	98	478	1464	0.268	392	425	0.4	0.4	3.413	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 - Moresby Parks Rd (N)	252	63	275	1549	0.163	252	437	0.3	0.2	2.777	A
2 - Access to Field	0	0	524	1567	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	690	173	47	1723	0.401	692	477	1.0	0.7	3.529	A
4 - Red Lonning	320	80	391	1521	0.210	320	348	0.4	0.3	3.051	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 - Moresby Parks Rd (N)	211	53	230	1578	0.134	211	366	0.2	0.2	2.633	A
2 - Access to Field	0	0	439	1627	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	578	145	39	1728	0.335	579	399	0.7	0.5	3.168	A
4 - Red Lonning	268	67	327	1563	0.172	268	291	0.3	0.2	2.828	A

Existing Layout - 2028 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.19	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	2028 Baseline Flows	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 - Moresby Parks Rd (N)		ONE HOUR	✓	368	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	425	100.000
4 - Red Lonning		ONE HOUR	✓	404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	1	1	285	81
	2 - Access to Field	1	0	1	1
	3 - Moresby Parks Rd (S)	213	0	1	211
	4 - Red Lonning	41	1	362	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	3
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	0	0	0	4
	4 - Red Lonning	0	0	5	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 - Moresby Parks Rd (N)	0.28	3.41	0.4	A	338	507
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.28	2.99	0.4	A	390	585
4 - Red Lonning	0.27	3.19	0.4	A	371	556

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 - Moresby Parks Rd (N)	277	69	273	1550	0.179	276	191	0.0	0.2	2.843	A
2 - Access to Field	0	0	548	1550	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	320	80	62	1713	0.187	319	486	0.0	0.2	2.632	A
4 - Red Lonning	304	76	161	1671	0.182	303	219	0.0	0.2	2.747	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 - Moresby Parks Rd (N)	331	83	327	1515	0.218	331	229	0.2	0.3	3.059	A
2 - Access to Field	0	0	656	1474	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	382	96	74	1705	0.224	382	582	0.2	0.3	2.773	A
4 - Red Lonning	363	91	193	1650	0.220	363	262	0.2	0.3	2.920	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 - Moresby Parks Rd (N)	405	101	400	1467	0.276	405	281	0.3	0.4	3.410	A
2 - Access to Field	0	0	803	1371	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	468	117	90	1694	0.276	468	713	0.3	0.4	2.992	A
4 - Red Lonning	445	111	237	1622	0.274	444	321	0.3	0.4	3.193	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 - Moresby Parks Rd (N)	405	101	401	1467	0.276	405	281	0.4	0.4	3.411	A
2 - Access to Field	0	0	804	1370	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	468	117	90	1694	0.276	468	713	0.4	0.4	2.992	A
4 - Red Lonning	445	111	237	1622	0.274	445	321	0.4	0.4	3.193	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 - Moresby Parks Rd (N)	331	83	328	1515	0.218	331	229	0.4	0.3	3.062	A
2 - Access to Field	0	0	657	1473	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	382	96	74	1705	0.224	382	583	0.4	0.3	2.777	A
4 - Red Lonning	363	91	193	1650	0.220	364	263	0.4	0.3	2.922	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 - Moresby Parks Rd (N)	277	69	274	1549	0.179	277	192	0.3	0.2	2.848	A
2 - Access to Field	0	0	550	1549	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	320	80	62	1713	0.187	320	488	0.3	0.2	2.637	A
4 - Red Lonning	304	76	162	1671	0.182	304	220	0.3	0.2	2.754	A

Existing Layout - 2028 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.72	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)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Parks Rd (N)		ONE HOUR	✓	281	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	762	100.000
4 - Red Lonning		ONE HOUR	✓	348	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	1	235	45
	2 - Access to Field	1	0	2	0
	3 - Moresby Parks Rd (S)	447	1	0	314
	4 - Red Lonning	50	1	296	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	0
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	1	0	0	1
	4 - Red Lonning	0	0	2	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 - Moresby Parks Rd (N)	0.20	2.99	0.3	A	258	387
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.49	4.13	1.0	A	699	1049
4 - Red Lonning	0.26	3.42	0.4	A	319	479

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd (N)	212	53	224	1581	0.134	211	373	0.0	0.2	2.625	A
2 - Access to Field	0	0	433	1631	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	574	143	35	1731	0.331	572	399	0.0	0.5	3.131	A
4 - Red Lonning	262	65	336	1557	0.168	261	270	0.0	0.2	2.824	A

16:15 - 16:30

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 - Moresby Parks Rd (N)	253	63	269	1553	0.163	252	446	0.2	0.2	2.768	A
2 - Access to Field	0	0	518	1571	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	685	171	41	1726	0.397	684	477	0.5	0.7	3.488	A
4 - Red Lonning	313	78	402	1513	0.207	313	323	0.2	0.3	3.048	A

16:30 - 16:45

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 - Moresby Parks Rd (N)	309	77	329	1514	0.204	309	546	0.2	0.3	2.988	A
2 - Access to Field	0	0	635	1489	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	839	210	51	1720	0.488	838	584	0.7	1.0	4.116	A
4 - Red Lonning	383	96	493	1454	0.263	383	396	0.3	0.4	3.416	A

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 - Moresby Parks Rd (N)	309	77	329	1513	0.204	309	547	0.3	0.3	2.989	A
2 - Access to Field	0	0	635	1489	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	839	210	51	1720	0.488	839	585	1.0	1.0	4.126	A
4 - Red Lonning	383	96	493	1454	0.264	383	396	0.4	0.4	3.418	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 - Moresby Parks Rd (N)	253	63	269	1552	0.163	253	448	0.3	0.2	2.770	A
2 - Access to Field	0	0	519	1570	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	685	171	41	1726	0.397	686	478	1.0	0.7	3.498	A
4 - Red Lonning	313	78	403	1513	0.207	313	324	0.4	0.3	3.054	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 - Moresby Parks Rd (N)	212	53	225	1581	0.134	212	375	0.2	0.2	2.629	A
2 - Access to Field	0	0	435	1630	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	574	143	35	1731	0.331	574	400	0.7	0.5	3.145	A
4 - Red Lonning	262	65	338	1556	0.168	262	271	0.3	0.2	2.832	A

Existing Layout - 2028 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	3.27	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
D9	2028 with Dev. Flows	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 - Moresby Parks Rd (N)		ONE HOUR	✓	370	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	437	100.000
4 - Red Lonning		ONE HOUR	✓	445	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	1	1	285	83
	2 - Access to Field	1	0	1	1
	3 - Moresby Parks Rd (S)	213	0	1	223
	4 - Red Lonning	49	1	395	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	3
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	0	0	0	4
	4 - Red Lonning	0	0	5	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 - Moresby Parks Rd (N)	0.28	3.50	0.4	A	340	509
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.28	3.03	0.4	A	401	601
4 - Red Lonning	0.30	3.32	0.5	A	408	613

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 - Moresby Parks Rd (N)	279	70	298	1534	0.182	278	197	0.0	0.2	2.884	A
2 - Access to Field	0	0	574	1532	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	329	82	63	1712	0.192	328	511	0.0	0.2	2.652	A
4 - Red Lonning	335	84	161	1671	0.200	334	230	0.0	0.3	2.811	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 - Moresby Parks Rd (N)	333	83	357	1496	0.222	332	236	0.2	0.3	3.115	A
2 - Access to Field	0	0	687	1452	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	393	98	75	1704	0.231	393	612	0.2	0.3	2.800	A
4 - Red Lonning	400	100	193	1650	0.242	400	275	0.3	0.3	3.005	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 - Moresby Parks Rd (N)	407	102	437	1444	0.282	407	289	0.3	0.4	3.493	A
2 - Access to Field	0	0	841	1344	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	481	120	92	1693	0.284	481	749	0.3	0.4	3.030	A
4 - Red Lonning	490	122	237	1622	0.302	489	337	0.3	0.4	3.316	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 - Moresby Parks Rd (N)	407	102	437	1443	0.282	407	290	0.4	0.4	3.496	A
2 - Access to Field	0	0	842	1343	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	481	120	92	1692	0.284	481	750	0.4	0.4	3.030	A
4 - Red Lonning	490	122	237	1622	0.302	490	337	0.4	0.5	3.319	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 - Moresby Parks Rd (N)	333	83	357	1495	0.222	333	237	0.4	0.3	3.118	A
2 - Access to Field	0	0	689	1451	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	393	98	76	1704	0.231	393	613	0.4	0.3	2.804	A
4 - Red Lonning	400	100	193	1650	0.242	401	275	0.5	0.3	3.008	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 - Moresby Parks Rd (N)	279	70	299	1533	0.182	279	198	0.3	0.2	2.891	A
2 - Access to Field	0	0	576	1530	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	329	82	63	1712	0.192	329	513	0.3	0.2	2.658	A
4 - Red Lonning	335	84	162	1671	0.201	335	231	0.3	0.3	2.814	A

Existing Layout - 2028 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Red Lonning / Moresby Parks Road roundabout	Standard Roundabout		1, 2, 3, 4	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)	Run automatically
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Parks Rd (N)		ONE HOUR	✓	288	100.000
2 - Access to Field		ONE HOUR	✓	3	100.000
3 - Moresby Parks Rd (S)		ONE HOUR	✓	791	100.000
4 - Red Lonning		ONE HOUR	✓	366	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	1	235	52
	2 - Access to Field	1	0	2	0
	3 - Moresby Parks Rd (S)	447	1	0	343
	4 - Red Lonning	53	1	311	1

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - Moresby Parks Rd (N)	2 - Access to Field	3 - Moresby Parks Rd (S)	4 - Red Lonning
From	1 - Moresby Parks Rd (N)	0	0	0	0
	2 - Access to Field	0	0	0	0
	3 - Moresby Parks Rd (S)	1	0	0	1
	4 - Red Lonning	0	0	2	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 - Moresby Parks Rd (N)	0.21	3.04	0.3	A	264	396
2 - Access to Field	0.00	0.00	0.0	A	0	0
3 - Moresby Parks Rd (S)	0.51	4.31	1.0	A	726	1089
4 - Red Lonning	0.28	3.48	0.4	A	336	504

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd (N)	217	54	236	1574	0.138	216	375	0.0	0.2	2.649	A
2 - Access to Field	0	0	450	1619	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	596	149	40	1727	0.345	593	410	0.0	0.5	3.201	A
4 - Red Lonning	276	69	336	1557	0.177	275	297	0.0	0.2	2.854	A

16:15 - 16:30

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 - Moresby Parks Rd (N)	259	65	282	1544	0.168	259	449	0.2	0.2	2.800	A
2 - Access to Field	0	0	538	1557	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	711	178	48	1722	0.413	710	490	0.5	0.7	3.592	A
4 - Red Lonning	329	82	402	1513	0.217	329	356	0.2	0.3	3.090	A

16:30 - 16:45

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 - Moresby Parks Rd (N)	317	79	345	1503	0.211	317	550	0.2	0.3	3.035	A
2 - Access to Field	0	0	659	1472	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	871	218	58	1715	0.508	870	601	0.7	1.0	4.300	A
4 - Red Lonning	403	101	493	1454	0.277	403	435	0.3	0.4	3.478	A

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 - Moresby Parks Rd (N)	317	79	346	1503	0.211	317	550	0.3	0.3	3.035	A
2 - Access to Field	0	0	660	1472	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	871	218	58	1715	0.508	871	601	1.0	1.0	4.307	A
4 - Red Lonning	403	101	493	1454	0.277	403	436	0.4	0.4	3.482	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 - Moresby Parks Rd (N)	259	65	283	1544	0.168	259	450	0.3	0.2	2.802	A
2 - Access to Field	0	0	539	1556	0.000	0	3	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	711	178	48	1722	0.413	712	491	1.0	0.7	3.607	A
4 - Red Lonning	329	82	403	1513	0.218	329	357	0.4	0.3	3.096	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 - Moresby Parks Rd (N)	217	54	237	1574	0.138	217	377	0.2	0.2	2.653	A
2 - Access to Field	0	0	451	1618	0.000	0	2	0.0	0.0	0.000	A
3 - Moresby Parks Rd (S)	596	149	40	1727	0.345	596	411	0.7	0.5	3.218	A
4 - Red Lonning	276	69	338	1556	0.177	276	298	0.3	0.2	2.862	A



Appendix J – JUNCTIONS 9 Output (J5)

Junctions 9							
ARCADY 9 - Roundabout Module							
Version: 9.5.0.6896							
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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: 05 J5 (ONE HOUR) Existing Layout.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J5 Moreby Rd_Cleator Moor Rd_Main St Mini

Report generation date: 22/10/2018 10:59:58

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
1 - Moresby Parks Rd	2.8	18.26	0.74	19.95	4.7	29.62	0.84	60.02
2 - Cleator Moor Rd	4.5	27.09	0.82		25.5	112.37	1.03	
3 - Main St	2.2	13.95	0.69		3.1	19.61	0.76	
	Existing Layout - 2023 Baseline Flows							
1 - Moresby Parks Rd	4.6	27.79	0.83	29.58	7.5	45.48	0.90	101.63
2 - Cleator Moor Rd	7.5	42.93	0.90		50.9	199.87	1.11	
3 - Main St	2.9	17.12	0.74		4.0	24.65	0.81	
	Existing Layout - 2023 with Dev. Flows							
1 - Moresby Parks Rd	14.8	74.85	0.97	59.43	13.8	74.95	0.97	146.98
2 - Cleator Moor Rd	14.7	81.06	0.98		66.7	287.58	1.16	
3 - Main St	3.6	20.16	0.78		8.3	45.71	0.91	
	Existing Layout - 2028 Baseline Flows							
1 - Moresby Parks Rd	5.7	33.45	0.86	37.11	10.2	59.52	0.94	135.85
2 - Cleator Moor Rd	10.3	57.04	0.94		65.8	271.81	1.15	
3 - Main St	3.4	19.49	0.77		4.7	27.98	0.84	
	Existing Layout - 2028 with Dev. Flows							
1 - Moresby Parks Rd	20.1	95.70	1.00	75.88	19.9	100.62	1.01	192.83
2 - Cleator Moor Rd	20.6	106.17	1.01		81.8	378.76	1.20	
3 - Main St	4.2	22.86	0.81		10.4	55.53	0.94	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Moreby Road / Cleator Moor Road / Main Street Mini Roundabout
Site number	
Date	15/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	19.95	C

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Moresby Parks Rd	
2	Cleator Moor Rd	
3	Main St	

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 - Moresby Parks Rd	3.11	3.11	4.85	2.6	11.56	8.10	0.0	
2 - Cleator Moor Rd	3.77	3.28	3.94	2.4	14.50	12.77	0.0	
3 - Main St	3.77	3.77	5.12	4.8	10.89	7.04	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Moresby Parks Rd	0.616	892
2 - Cleator Moor Rd	0.622	940
3 - Main St	0.647	1074

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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	516	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	575	100.000
3 - Main St		ONE HOUR	✓	537	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	265	251
	2 - Cleator Moor Rd	302	0	273
	3 - Main St	358	179	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	4	2
		2 - Cleator Moor Rd	3	0	4
		3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	2	1
		2 - Cleator Moor Rd	5	0	7
		3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	4	3
		2 - Cleator Moor Rd	2	0	3
		3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	7	0
		2 - Cleator Moor Rd	4	0	5
		3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	5	5
		2 - Cleator Moor Rd	0	0	2
		3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	5	5
		2 - Cleator Moor Rd	0	0	2
		3 - Main St	4	3	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 - Moresby Parks Rd	0.74	18.26	2.8	C	473	710
2 - Cleator Moor Rd	0.82	27.09	4.5	D	528	791
3 - Main St	0.69	13.95	2.2	B	493	739

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 - Moresby Parks Rd	388	97	134	810	0.480	385	492	0.0	0.9	8.654	A
2 - Cleator Moor Rd	433	108	187	823	0.526	428	331	0.0	1.1	9.337	A
3 - Main St	404	101	225	929	0.435	401	391	0.0	0.8	6.942	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 - Moresby Parks Rd	464	116	160	793	0.585	462	591	0.9	1.4	10.968	B
2 - Cleator Moor Rd	517	129	225	800	0.646	514	398	1.1	1.9	13.210	B
3 - Main St	483	121	270	900	0.537	481	469	0.8	1.2	8.852	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 - Moresby Parks Rd	568	142	196	771	0.736	563	719	1.4	2.7	17.436	C
2 - Cleator Moor Rd	633	158	274	769	0.823	624	485	1.9	4.2	23.943	C
3 - Main St	591	148	328	862	0.686	588	570	1.2	2.1	12.921	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 - Moresby Parks Rd	568	142	197	771	0.737	568	726	2.7	2.8	18.258	C
2 - Cleator Moor Rd	633	158	276	768	0.825	632	488	4.2	4.5	27.086	D
3 - Main St	591	148	332	860	0.688	591	576	2.1	2.2	13.950	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 - Moresby Parks Rd	464	116	162	792	0.586	469	601	2.8	1.5	11.873	B
2 - Cleator Moor Rd	517	129	228	798	0.648	527	403	4.5	1.9	13.910	B
3 - Main St	483	121	277	895	0.539	487	478	2.2	1.2	9.223	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 - Moresby Parks Rd	388	97	135	809	0.480	391	500	1.5	1.0	9.088	A
2 - Cleator Moor Rd	433	108	190	821	0.527	436	336	1.9	1.1	9.509	A
3 - Main St	404	101	229	926	0.437	406	397	1.2	0.8	7.196	A

Existing Layout - 2018 Surveyed Flows , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	60.02	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)	Run automatically
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	545	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	725	100.000
3 - Main St		ONE HOUR	✓	529	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	309	236
	2 - Cleator Moor Rd	452	0	273
	3 - Main St	272	257	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	0.84	29.62	4.7	D	500	750
2 - Cleator Moor Rd	1.03	112.37	25.5	F	665	998
3 - Main St	0.76	19.61	3.1	C	485	728

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	410	103	192	774	0.530	406	539	0.0	1.1	9.785	A
2 - Cleator Moor Rd	546	136	176	830	0.657	538	422	0.0	1.9	12.171	B
3 - Main St	398	100	336	857	0.465	395	378	0.0	0.9	7.882	A

16:15 - 16:30

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 - Moresby Parks Rd	490	122	230	750	0.653	487	645	1.1	1.8	13.747	B
2 - Cleator Moor Rd	652	163	211	808	0.806	644	506	1.9	3.8	21.231	C
3 - Main St	476	119	402	815	0.584	473	453	0.9	1.4	10.746	B

16:30 - 16:45

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 - Moresby Parks Rd	600	150	280	719	0.834	590	762	1.8	4.4	26.567	D
2 - Cleator Moor Rd	798	200	255	781	1.023	746	615	3.8	16.8	64.864	F
3 - Main St	582	146	465	773	0.753	577	536	1.4	2.9	17.936	C

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 - Moresby Parks Rd	600	150	283	718	0.836	599	775	4.4	4.7	29.618	D
2 - Cleator Moor Rd	798	200	259	778	1.026	764	622	16.8	25.5	112.366	F
3 - Main St	582	146	476	766	0.760	582	547	2.9	3.1	19.610	C

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 - Moresby Parks Rd	490	122	234	748	0.655	501	704	4.7	2.0	15.130	C
2 - Cleator Moor Rd	652	163	217	805	0.810	733	518	25.5	5.2	64.327	F
3 - Main St	476	119	457	779	0.611	481	493	3.1	1.7	12.621	B

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 - Moresby Parks Rd	410	103	195	772	0.531	414	555	2.0	1.2	10.135	B
2 - Cleator Moor Rd	546	136	179	828	0.659	559	429	5.2	2.0	14.033	B
3 - Main St	398	100	348	849	0.469	401	389	1.7	0.9	8.294	A

Existing Layout - 2023 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	29.58	D

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	576	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	610	100.000
3 - Main St		ONE HOUR	✓	571	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	296	280
	2 - Cleator Moor Rd	322	0	288
	3 - Main St	382	189	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	2
	2 - Cleator Moor Rd	3	0	4
	3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	2	1
	2 - Cleator Moor Rd	5	0	7
	3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	4	3
	2 - Cleator Moor Rd	2	0	3
	3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	7	0
	2 - Cleator Moor Rd	4	0	5
	3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	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 - Moresby Parks Rd	0.83	27.79	4.6	D	529	793
2 - Cleator Moor Rd	0.90	42.93	7.5	E	560	840
3 - Main St	0.74	17.12	2.9	C	524	786

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 - Moresby Parks Rd	434	108	141	805	0.539	429	525	0.0	1.2	9.742	A
2 - Cleator Moor Rd	459	115	209	810	0.567	454	362	0.0	1.3	10.322	B
3 - Main St	430	107	240	919	0.468	426	423	0.0	0.9	7.422	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 - Moresby Parks Rd	518	129	169	788	0.657	515	629	1.2	1.9	13.253	B
2 - Cleator Moor Rd	548	137	250	784	0.700	544	434	1.3	2.3	15.646	C
3 - Main St	513	128	287	888	0.578	511	507	0.9	1.4	9.810	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 - Moresby Parks Rd	634	159	206	765	0.829	624	763	1.9	4.3	24.893	C
2 - Cleator Moor Rd	672	168	303	751	0.895	655	527	2.3	6.4	33.871	D
3 - Main St	629	157	346	851	0.739	624	613	1.4	2.7	15.498	C

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 - Moresby Parks Rd	634	159	208	764	0.830	633	772	4.3	4.6	27.789	D
2 - Cleator Moor Rd	672	168	308	748	0.898	667	533	6.4	7.5	42.935	E
3 - Main St	629	157	352	846	0.743	628	623	2.7	2.9	17.118	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 - Moresby Parks Rd	518	129	172	786	0.659	528	647	4.6	2.1	15.167	C
2 - Cleator Moor Rd	548	137	257	780	0.703	568	443	7.5	2.5	18.518	C
3 - Main St	513	128	300	880	0.583	519	525	2.9	1.5	10.480	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 - Moresby Parks Rd	434	108	143	804	0.539	437	534	2.1	1.3	10.394	B
2 - Cleator Moor Rd	459	115	212	807	0.569	464	368	2.5	1.4	10.721	B
3 - Main St	430	107	245	916	0.469	432	432	1.5	0.9	7.750	A

Existing Layout - 2023 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	101.63	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)	Run automatically
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	582	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	773	100.000
3 - Main St		ONE HOUR	✓	562	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	330	252
	2 - Cleator Moor Rd	486	0	287
	3 - Main St	292	270	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	0.90	45.48	7.5	E	534	801
2 - Cleator Moor Rd	1.11	199.87	50.9	F	709	1064
3 - Main St	0.81	24.65	4.0	C	516	774

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	438	110	201	768	0.570	433	578	0.0	1.3	10.705	B
2 - Cleator Moor Rd	582	145	187	823	0.707	573	447	0.0	2.3	14.061	B
3 - Main St	423	106	360	841	0.503	419	400	0.0	1.0	8.614	A

16:15 - 16:30

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 - Moresby Parks Rd	523	131	241	743	0.704	519	690	1.3	2.3	16.049	C
2 - Cleator Moor Rd	695	174	225	800	0.869	682	536	2.3	5.5	28.364	D
3 - Main St	505	126	429	797	0.634	502	478	1.0	1.7	12.408	B

16:30 - 16:45

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 - Moresby Parks Rd	641	160	293	711	0.901	623	793	2.3	6.6	36.376	E
2 - Cleator Moor Rd	851	213	270	772	1.103	756	647	5.5	29.2	98.372	F
3 - Main St	619	155	475	767	0.807	611	551	1.7	3.8	22.139	C

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 - Moresby Parks Rd	641	160	297	709	0.903	637	802	6.6	7.5	45.482	E
2 - Cleator Moor Rd	851	213	276	768	1.108	764	658	29.2	50.9	199.871	F
3 - Main St	619	155	481	763	0.810	618	560	3.8	4.0	24.655	C

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 - Moresby Parks Rd	523	131	246	740	0.707	543	755	7.5	2.6	19.838	C
2 - Cleator Moor Rd	695	174	235	793	0.876	778	554	50.9	30.2	189.787	F
3 - Main St	505	126	489	758	0.666	513	524	4.0	2.1	15.488	C

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 - Moresby Parks Rd	438	110	205	766	0.572	443	657	2.6	1.4	11.308	B
2 - Cleator Moor Rd	582	145	192	820	0.710	692	456	30.2	2.7	47.832	E
3 - Main St	423	106	435	793	0.534	427	449	2.1	1.2	10.183	B

Existing Layout - 2023 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	59.43	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)	Run automatically
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	675	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	614	100.000
3 - Main St		ONE HOUR	✓	603	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	306	369
	2 - Cleator Moor Rd	326	0	288
	3 - Main St	414	189	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	2
	2 - Cleator Moor Rd	3	0	4
	3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	2	1
	2 - Cleator Moor Rd	5	0	7
	3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	4	3
	2 - Cleator Moor Rd	2	0	3
	3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	7	0
	2 - Cleator Moor Rd	4	0	5
	3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	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 - Moresby Parks Rd	0.97	74.85	14.8	F	619	929
2 - Cleator Moor Rd	0.98	81.06	14.7	F	563	845
3 - Main St	0.78	20.16	3.6	C	553	830

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 - Moresby Parks Rd	508	127	141	805	0.631	501	551	0.0	1.7	11.944	B
2 - Cleator Moor Rd	462	116	274	769	0.601	456	368	0.0	1.5	11.696	B
3 - Main St	454	113	242	918	0.495	450	488	0.0	1.0	7.816	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 - Moresby Parks Rd	607	152	169	788	0.770	601	661	1.7	3.1	18.961	C
2 - Cleator Moor Rd	552	138	329	735	0.751	546	442	1.5	2.9	19.607	C
3 - Main St	542	136	290	887	0.611	540	585	1.0	1.6	10.648	B

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 - Moresby Parks Rd	743	186	206	765	0.971	711	794	3.1	11.3	50.321	F
2 - Cleator Moor Rd	676	169	388	698	0.969	645	528	2.9	10.6	51.976	F
3 - Main St	664	166	343	853	0.779	657	691	1.6	3.2	17.814	C

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 - Moresby Parks Rd	743	186	208	764	0.973	729	805	11.3	14.8	74.845	F
2 - Cleator Moor Rd	676	169	399	692	0.978	660	538	10.6	14.7	81.065	F
3 - Main St	664	166	350	848	0.783	663	708	3.2	3.6	20.158	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 - Moresby Parks Rd	607	152	172	786	0.772	650	693	14.8	3.9	34.044	D
2 - Cleator Moor Rd	552	138	356	718	0.768	595	467	14.7	3.8	36.287	E
3 - Main St	542	136	316	870	0.623	549	635	3.6	1.8	11.894	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 - Moresby Parks Rd	508	127	143	804	0.632	516	564	3.9	1.9	13.499	B
2 - Cleator Moor Rd	462	116	282	764	0.605	471	377	3.8	1.6	12.756	B
3 - Main St	454	113	250	913	0.497	457	503	1.8	1.0	8.243	A

Existing Layout - 2023 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	146.98	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)	Run automatically
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	626	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	781	100.000
3 - Main St		ONE HOUR	✓	639	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	334	292
	2 - Cleator Moor Rd	494	0	287
	3 - Main St	369	270	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	0.97	74.95	13.8	F	574	862
2 - Cleator Moor Rd	1.16	287.58	66.7	F	717	1075
3 - Main St	0.91	45.71	8.3	E	586	880

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	471	118	201	768	0.613	465	640	0.0	1.6	11.774	B
2 - Cleator Moor Rd	588	147	217	805	0.731	578	449	0.0	2.6	15.404	C
3 - Main St	481	120	365	838	0.574	476	429	0.0	1.3	9.996	A

16:15 - 16:30

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 - Moresby Parks Rd	563	141	241	744	0.757	557	762	1.6	2.9	19.050	C
2 - Cleator Moor Rd	702	176	260	778	0.903	685	538	2.6	6.8	34.301	D
3 - Main St	574	144	433	794	0.724	570	512	1.3	2.5	16.100	C

16:30 - 16:45

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 - Moresby Parks Rd	689	172	289	714	0.966	659	863	2.9	10.5	50.538	F
2 - Cleator Moor Rd	860	215	307	748	1.149	738	641	6.8	37.2	122.744	F
3 - Main St	704	176	467	772	0.911	685	579	2.5	7.2	35.670	E

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 - Moresby Parks Rd	689	172	295	710	0.971	676	873	10.5	13.8	74.954	F
2 - Cleator Moor Rd	860	215	315	743	1.157	742	656	37.2	66.7	261.948	F
3 - Main St	704	176	469	771	0.913	699	588	7.2	8.3	45.707	E

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 - Moresby Parks Rd	563	141	251	737	0.763	604	820	13.8	3.6	32.681	D
2 - Cleator Moor Rd	702	176	282	764	0.919	753	573	66.7	54.0	287.575	F
3 - Main St	574	144	476	766	0.750	594	558	8.3	3.3	23.562	C

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 - Moresby Parks Rd	471	118	206	765	0.616	479	778	3.6	1.7	12.884	B
2 - Cleator Moor Rd	588	147	223	801	0.734	786	461	54.0	4.6	142.336	F
3 - Main St	481	120	497	753	0.639	487	512	3.3	1.9	14.180	B

Existing Layout - 2028 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	37.11	E

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	595	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	631	100.000
3 - Main St		ONE HOUR	✓	590	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	306	289
	2 - Cleator Moor Rd	333	0	298
	3 - Main St	395	195	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	2
	2 - Cleator Moor Rd	3	0	4
	3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	1
	2 - Cleator Moor Rd	5	0	7
	3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	3
	2 - Cleator Moor Rd	2	0	3
	3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	7	0
	2 - Cleator Moor Rd	4	0	5
	3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	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 - Moresby Parks Rd	0.86	33.45	5.7	D	546	819
2 - Cleator Moor Rd	0.94	57.04	10.3	F	579	869
3 - Main St	0.77	19.49	3.4	C	541	812

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 - Moresby Parks Rd	448	112	146	802	0.558	443	542	0.0	1.3	10.178	B
2 - Cleator Moor Rd	475	119	215	806	0.590	469	373	0.0	1.4	10.895	B
3 - Main St	444	111	248	914	0.486	440	437	0.0	1.0	7.715	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 - Moresby Parks Rd	535	134	175	785	0.682	532	650	1.3	2.1	14.260	B
2 - Cleator Moor Rd	567	142	258	779	0.728	562	448	1.4	2.7	17.231	C
3 - Main St	530	133	297	882	0.601	528	524	1.0	1.5	10.434	B

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 - Moresby Parks Rd	655	164	213	761	0.861	643	785	2.1	5.2	28.757	D
2 - Cleator Moor Rd	695	174	312	745	0.932	672	543	2.7	8.3	41.173	E
3 - Main St	650	162	355	845	0.769	643	629	1.5	3.1	17.321	C

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 - Moresby Parks Rd	655	164	214	760	0.862	653	797	5.2	5.7	33.451	D
2 - Cleator Moor Rd	695	174	317	742	0.936	687	550	8.3	10.3	57.043	F
3 - Main St	650	162	363	840	0.773	648	642	3.1	3.4	19.487	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 - Moresby Parks Rd	535	134	178	783	0.683	548	674	5.7	2.4	16.962	C
2 - Cleator Moor Rd	567	142	266	774	0.733	596	460	10.3	3.0	23.170	C
3 - Main St	530	133	315	871	0.609	537	548	3.4	1.7	11.410	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 - Moresby Parks Rd	448	112	148	801	0.559	452	553	2.4	1.4	10.950	B
2 - Cleator Moor Rd	475	119	220	803	0.592	481	380	3.0	1.5	11.488	B
3 - Main St	444	111	254	910	0.488	447	447	1.7	1.0	8.101	A

Existing Layout - 2028 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	135.85	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)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	600	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	797	100.000
3 - Main St		ONE HOUR	✓	580	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	340	260
	2 - Cleator Moor Rd	501	0	296
	3 - Main St	301	279	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

		To		
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	0.94	59.52	10.2	F	551	826
2 - Cleator Moor Rd	1.15	271.81	65.8	F	731	1097
3 - Main St	0.84	27.98	4.7	D	532	798

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	452	113	208	764	0.591	446	595	0.0	1.4	11.261	B
2 - Cleator Moor Rd	600	150	193	819	0.732	590	461	0.0	2.6	15.221	C
3 - Main St	437	109	371	835	0.523	432	412	0.0	1.1	9.032	A

16:15 - 16:30

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 - Moresby Parks Rd	539	135	249	739	0.730	535	709	1.4	2.6	17.560	C
2 - Cleator Moor Rd	716	179	232	795	0.901	700	552	2.6	6.7	33.421	D
3 - Main St	521	130	440	790	0.660	518	492	1.1	1.9	13.420	B

16:30 - 16:45

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 - Moresby Parks Rd	661	165	302	706	0.936	637	802	2.6	8.4	43.628	E
2 - Cleator Moor Rd	878	219	276	768	1.143	757	664	6.7	36.8	118.872	F
3 - Main St	639	160	476	766	0.833	629	557	1.9	4.4	24.769	C

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 - Moresby Parks Rd	661	165	307	703	0.939	653	809	8.4	10.2	59.523	F
2 - Cleator Moor Rd	878	219	283	763	1.150	762	677	36.8	65.8	252.167	F
3 - Main St	639	160	479	765	0.835	637	566	4.4	4.7	27.983	D

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 - Moresby Parks Rd	539	135	255	735	0.734	568	762	10.2	3.0	24.673	C
2 - Cleator Moor Rd	716	179	246	786	0.911	774	577	65.8	51.3	271.807	F
3 - Main St	521	130	487	760	0.687	531	534	4.7	2.4	16.749	C

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 - Moresby Parks Rd	452	113	212	762	0.593	458	725	3.0	1.5	12.061	B
2 - Cleator Moor Rd	600	150	198	816	0.735	790	471	51.3	3.8	127.355	F
3 - Main St	437	109	497	753	0.580	440	492	2.4	1.5	11.932	B

Existing Layout - 2028 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	75.88	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)	Run automatically
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	692	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	634	100.000
3 - Main St		ONE HOUR	✓	621	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	315	377
	2 - Cleator Moor Rd	336	0	298
	3 - Main St	426	195	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	2
	2 - Cleator Moor Rd	3	0	4
	3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	1
	2 - Cleator Moor Rd	5	0	7
	3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	3
	2 - Cleator Moor Rd	2	0	3
	3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	7	0
	2 - Cleator Moor Rd	4	0	5
	3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	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 - Moresby Parks Rd	1.00	95.70	20.1	F	635	952
2 - Cleator Moor Rd	1.01	106.17	20.6	F	582	873
3 - Main St	0.81	22.86	4.2	C	570	855

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 - Moresby Parks Rd	521	130	145	802	0.649	514	567	0.0	1.8	12.532	B
2 - Cleator Moor Rd	477	119	280	765	0.624	471	379	0.0	1.7	12.379	B
3 - Main St	468	117	249	913	0.512	463	501	0.0	1.1	8.121	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 - Moresby Parks Rd	622	156	174	785	0.793	615	679	1.8	3.5	20.752	C
2 - Cleator Moor Rd	570	142	335	731	0.780	563	455	1.7	3.4	21.834	C
3 - Main St	558	140	298	881	0.633	556	600	1.1	1.7	11.325	B

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 - Moresby Parks Rd	762	190	212	761	1.001	719	812	3.5	14.1	59.173	F
2 - Cleator Moor Rd	698	175	392	696	1.003	657	540	3.4	13.8	62.494	F
3 - Main St	684	171	348	849	0.805	676	701	1.7	3.7	19.851	C

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 - Moresby Parks Rd	762	190	214	760	1.002	738	823	14.1	20.1	95.698	F
2 - Cleator Moor Rd	698	175	402	689	1.013	671	550	13.8	20.6	106.173	F
3 - Main St	684	171	355	844	0.810	682	717	3.7	4.2	22.863	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 - Moresby Parks Rd	622	156	178	782	0.795	684	724	20.1	4.7	49.499	E
2 - Cleator Moor Rd	570	142	372	708	0.805	632	489	20.6	5.1	59.735	F
3 - Main St	558	140	335	858	0.651	567	669	4.2	2.0	13.183	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 - Moresby Parks Rd	521	130	148	801	0.650	531	583	4.7	2.0	14.530	B
2 - Cleator Moor Rd	477	119	290	759	0.629	491	390	5.1	1.8	14.138	B
3 - Main St	468	117	260	906	0.516	471	520	2.0	1.1	8.648	A

Existing Layout - 2028 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	192.83	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)	Run automatically
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	645	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	805	100.000
3 - Main St		ONE HOUR	✓	657	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	345	300
	2 - Cleator Moor Rd	509	0	296
	3 - Main St	378	279	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	1.01	100.62	19.9	F	592	888
2 - Cleator Moor Rd	1.20	378.76	81.8	F	739	1108
3 - Main St	0.94	55.53	10.4	F	603	904

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	486	121	208	764	0.635	479	657	0.0	1.7	12.473	B
2 - Cleator Moor Rd	606	152	223	801	0.757	594	464	0.0	2.9	16.778	C
3 - Main St	495	124	376	831	0.595	489	441	0.0	1.5	10.554	B

16:15 - 16:30

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 - Moresby Parks Rd	580	145	248	739	0.785	573	780	1.7	3.4	21.222	C
2 - Cleator Moor Rd	724	181	267	774	0.935	701	555	2.9	8.6	40.957	E
3 - Main St	591	148	443	788	0.750	585	524	1.5	2.9	17.715	C

16:30 - 16:45

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 - Moresby Parks Rd	710	178	297	709	1.002	669	870	3.4	13.7	61.281	F
2 - Cleator Moor Rd	886	222	311	746	1.188	739	655	8.6	45.3	146.207	F
3 - Main St	723	181	468	772	0.937	700	583	2.9	8.6	41.105	E

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 - Moresby Parks Rd	710	178	304	705	1.008	685	880	13.7	19.9	100.624	F
2 - Cleator Moor Rd	886	222	319	741	1.196	740	671	45.3	81.8	318.240	F
3 - Main St	723	181	468	772	0.937	716	591	8.6	10.4	55.532	F

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 - Moresby Parks Rd	580	145	262	731	0.794	641	826	19.9	4.5	52.274	F
2 - Cleator Moor Rd	724	181	298	754	0.960	745	605	81.8	76.6	378.761	F
3 - Main St	591	148	471	770	0.767	618	572	10.4	3.7	27.537	D

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 - Moresby Parks Rd	486	121	213	761	0.638	496	785	4.5	1.8	14.100	B
2 - Cleator Moor Rd	606	152	231	796	0.761	786	478	76.6	31.7	251.762	F
3 - Main St	495	124	497	753	0.657	501	520	3.7	2.1	15.041	C

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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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: 06 J5 (ONE HOUR) Proposed Mitigation.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J5 Moreby Rd_Cleator Moor Rd_Main St Mini

Report generation date: 22/10/2018 11:01:48

- »Proposed Mitigation (A090070-P006 RevP01) - 2023 with Dev. Flows, AM
- »Proposed Mitigation (A090070-P006 RevP01) - 2023 with Dev. Flows, PM
- »Proposed Mitigation (A090070-P006 RevP01) - 2028 with Dev. Flows, AM
- »Proposed Mitigation (A090070-P006 RevP01) - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Proposed Mitigation (A090070-P006 RevP01) - 2023 with Dev. Flows							
1 - Moresby Parks Rd	14.8	74.82	0.97	40.33	13.3	72.82	0.97	66.00
2 - Cleator Moor Rd	3.9	21.66	0.80		12.7	56.21	0.96	
3 - Main St	3.7	20.74	0.79		13.3	71.29	0.97	
	Proposed Mitigation (A090070-P006 RevP01) - 2028 with Dev. Flows							
1 - Moresby Parks Rd	20.0	95.62	1.00	49.81	18.7	95.61	1.00	87.69
2 - Cleator Moor Rd	4.6	24.97	0.83		18.0	74.94	0.99	
3 - Main St	4.4	24.13	0.82		19.1	95.52	1.00	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Moreby Road / Cleator Moor Road / Main Street Mini Roundabout
Site number	
Date	15/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYG\yujing.liu
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
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Name	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	Proposed Mitigation (A090070-P006 RevP01)	✓	100.000	100.000

Proposed Mitigation (A090070-P006 RevP01) - 2023 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	40.33	E

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	Moresby Parks Rd	
2	Cleator Moor Rd	
3	Main St	

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 - Moresby Parks Rd	3.11	3.11	4.85	2.6	11.56	8.10	0.0	
2 - Cleator Moor Rd	3.77	3.77	4.99	6.1	14.50	12.56	0.0	
3 - Main St	3.77	3.77	5.12	4.8	10.89	7.04	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Moresby Parks Rd	0.616	892
2 - Cleator Moor Rd	0.655	1107
3 - Main St	0.647	1074

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
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	675	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	614	100.000
3 - Main St		ONE HOUR	✓	603	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
	1 - Moresby Parks Rd	0	306	369
	2 - Cleator Moor Rd	326	0	288
	3 - Main St	414	189	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	4	2
		2 - Cleator Moor Rd	3	0	4
		3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	2	1
		2 - Cleator Moor Rd	5	0	7
		3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	4	3
		2 - Cleator Moor Rd	2	0	3
		3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	7	0
		2 - Cleator Moor Rd	4	0	5
		3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	5	5
		2 - Cleator Moor Rd	0	0	2
		3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15		To			
	From		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
		1 - Moresby Parks Rd	0	5	5
		2 - Cleator Moor Rd	0	0	2
		3 - Main St	4	3	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 - Moresby Parks Rd	0.97	74.82	14.8	F	619	929
2 - Cleator Moor Rd	0.80	21.66	3.9	C	563	845
3 - Main St	0.79	20.74	3.7	C	553	830

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 - Moresby Parks Rd	508	127	141	805	0.631	501	552	0.0	1.7	11.944	B
2 - Cleator Moor Rd	462	116	274	928	0.498	458	368	0.0	1.0	7.872	A
3 - Main St	454	113	243	917	0.495	450	489	0.0	1.0	7.828	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 - Moresby Parks Rd	607	152	169	788	0.770	601	662	1.7	3.1	18.961	C
2 - Cleator Moor Rd	552	138	329	892	0.619	549	442	1.0	1.7	11.046	B
3 - Main St	542	136	292	886	0.612	540	586	1.0	1.6	10.679	B

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 - Moresby Parks Rd	743	186	206	765	0.971	711	806	3.1	11.3	50.288	F
2 - Cleator Moor Rd	676	169	388	853	0.793	668	528	1.7	3.6	19.237	C
3 - Main St	664	166	355	845	0.786	657	702	1.6	3.4	18.463	C

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 - Moresby Parks Rd	743	186	208	764	0.973	729	813	11.3	14.8	74.821	F
2 - Cleator Moor Rd	676	169	399	846	0.799	675	538	3.6	3.9	21.660	C
3 - Main St	664	166	358	843	0.788	663	715	3.4	3.7	20.736	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 - Moresby Parks Rd	607	152	172	786	0.772	650	675	14.8	3.9	34.065	D
2 - Cleator Moor Rd	552	138	355	874	0.631	560	467	3.9	1.8	11.862	B
3 - Main St	542	136	298	882	0.615	550	618	3.7	1.7	11.497	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 - Moresby Parks Rd	508	127	143	804	0.632	516	561	3.9	1.9	13.498	B
2 - Cleator Moor Rd	462	116	282	922	0.501	465	377	1.8	1.0	8.004	A
3 - Main St	454	113	247	915	0.496	457	501	1.7	1.0	8.198	A

Proposed Mitigation (A090070-P006 RevP01) - 2023 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	66.00	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)	Run automatically
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	626	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	781	100.000
3 - Main St		ONE HOUR	✓	639	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	334	292
	2 - Cleator Moor Rd	494	0	287
	3 - Main St	369	270	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	0.97	72.82	13.3	F	574	862
2 - Cleator Moor Rd	0.96	56.21	12.7	F	717	1075
3 - Main St	0.97	71.29	13.3	F	586	880

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	471	118	201	768	0.613	465	643	0.0	1.6	11.773	B
2 - Cleator Moor Rd	588	147	217	965	0.609	582	449	0.0	1.5	9.347	A
3 - Main St	481	120	368	836	0.575	476	431	0.0	1.3	10.042	B

16:15 - 16:30

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 - Moresby Parks Rd	563	141	241	744	0.757	557	770	1.6	2.9	19.048	C
2 - Cleator Moor Rd	702	176	260	937	0.749	697	538	1.5	2.8	14.860	B
3 - Main St	574	144	441	789	0.728	570	516	1.3	2.6	16.415	C

16:30 - 16:45

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 - Moresby Parks Rd	689	172	285	717	0.962	660	915	2.9	10.2	49.523	E
2 - Cleator Moor Rd	860	215	308	905	0.950	831	637	2.8	10.0	39.190	E
3 - Main St	704	176	526	734	0.958	674	613	2.6	9.9	46.501	E

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 - Moresby Parks Rd	689	172	291	713	0.967	677	935	10.2	13.3	72.821	F
2 - Cleator Moor Rd	860	215	316	900	0.955	849	653	10.0	12.7	56.208	F
3 - Main St	704	176	537	727	0.968	690	628	9.9	13.3	71.293	F

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 - Moresby Parks Rd	563	141	260	732	0.769	601	823	13.3	3.7	33.126	D
2 - Cleator Moor Rd	702	176	280	923	0.760	739	581	12.7	3.5	22.842	C
3 - Main St	574	144	467	772	0.744	615	552	13.3	3.2	28.271	D

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 - Moresby Parks Rd	471	118	206	765	0.616	479	658	3.7	1.7	12.943	B
2 - Cleator Moor Rd	588	147	224	961	0.612	595	462	3.5	1.6	10.112	B
3 - Main St	481	120	377	831	0.579	488	442	3.2	1.5	11.006	B

Proposed Mitigation (A090070-P006 RevP01) - 2028 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	49.81	E

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	692	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	634	100.000
3 - Main St		ONE HOUR	✓	621	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	315	377
	2 - Cleator Moor Rd	336	0	298
	3 - Main St	426	195	0

Vehicle Mix

Heavy Vehicle Percentages

07:45 - 08:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	4	2
	2 - Cleator Moor Rd	3	0	4
	3 - Main St	3	1	0

Heavy Vehicle Percentages

08:00 - 08:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	2	1
	2 - Cleator Moor Rd	5	0	7
	3 - Main St	4	2	0

Heavy Vehicle Percentages

08:15 - 08:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	4	3
	2 - Cleator Moor Rd	2	0	3
	3 - Main St	0	0	0

Heavy Vehicle Percentages

08:30 - 08:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	7	0
	2 - Cleator Moor Rd	4	0	5
	3 - Main St	7	0	0

Heavy Vehicle Percentages

08:45 - 09:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	0

Heavy Vehicle Percentages

09:00 - 09:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	5	5
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	3	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 - Moresby Parks Rd	1.00	95.62	20.0	F	635	952
2 - Cleator Moor Rd	0.83	24.97	4.6	C	582	873
3 - Main St	0.82	24.13	4.4	C	570	855

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 - Moresby Parks Rd	521	130	145	802	0.649	514	568	0.0	1.8	12.532	B
2 - Cleator Moor Rd	477	119	280	924	0.517	473	379	0.0	1.1	8.186	A
3 - Main St	468	117	251	912	0.513	463	502	0.0	1.1	8.136	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 - Moresby Parks Rd	622	156	174	785	0.793	615	682	1.8	3.5	20.751	C
2 - Cleator Moor Rd	570	142	335	888	0.642	567	455	1.1	1.8	11.782	B
3 - Main St	558	140	300	880	0.634	556	602	1.1	1.7	11.371	B

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 - Moresby Parks Rd	762	190	212	762	1.001	719	828	3.5	14.1	59.105	F
2 - Cleator Moor Rd	698	175	392	850	0.821	689	539	1.8	4.2	21.635	C
3 - Main St	684	171	365	838	0.816	675	716	1.7	3.9	20.954	C

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 - Moresby Parks Rd	762	190	214	760	1.002	738	837	14.1	20.0	95.617	F
2 - Cleator Moor Rd	698	175	402	844	0.827	696	550	4.2	4.6	24.972	C
3 - Main St	684	171	369	836	0.818	682	729	3.9	4.4	24.131	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 - Moresby Parks Rd	622	156	178	782	0.795	684	697	20.0	4.7	49.550	E
2 - Cleator Moor Rd	570	142	372	863	0.660	580	490	4.6	2.0	13.259	B
3 - Main St	558	140	307	875	0.638	568	645	4.4	1.9	12.516	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 - Moresby Parks Rd	521	130	148	801	0.650	532	578	4.7	2.0	14.529	B
2 - Cleator Moor Rd	477	119	290	917	0.520	481	390	2.0	1.1	8.395	A
3 - Main St	468	117	255	909	0.514	471	516	1.9	1.1	8.566	A

Proposed Mitigation (A090070-P006 RevP01) - 2028 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Moreby Rd/Cleator Moor Rd/Main St Mini Rbt	Mini-roundabout		1, 2, 3	87.69	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)	Run automatically
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over time	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 - Moresby Parks Rd		ONE HOUR	✓	645	100.000
2 - Cleator Moor Rd		ONE HOUR	✓	805	100.000
3 - Main St		ONE HOUR	✓	657	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	345	300
	2 - Cleator Moor Rd	509	0	296
	3 - Main St	378	279	0

Vehicle Mix

Heavy Vehicle Percentages

16:00 - 16:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From	1 - Moresby Parks Rd	0	2	0
	2 - Cleator Moor Rd	1	0	1
	3 - Main St	2	2	0

Heavy Vehicle Percentages

16:15 - 16:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	0
	2 - Cleator Moor Rd	2	0	0
	3 - Main St	2	3	0

Heavy Vehicle Percentages

16:30 - 16:45

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	3	2
	2 - Cleator Moor Rd	1	0	3
	3 - Main St	0	2	0

Heavy Vehicle Percentages

16:45 - 17:00

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	1	0
	2 - Cleator Moor Rd	1	0	2
	3 - Main St	3	0	0

Heavy Vehicle Percentages

17:00 - 17:15

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	1	0

Heavy Vehicle Percentages

17:15 - 17:30

	To			
		1 - Moresby Parks Rd	2 - Cleator Moor Rd	3 - Main St
From				
	1 - Moresby Parks Rd	0	0	0
	2 - Cleator Moor Rd	0	0	2
	3 - Main St	4	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 - Moresby Parks Rd	1.00	95.61	18.7	F	592	888
2 - Cleator Moor Rd	0.99	74.94	18.0	F	739	1108
3 - Main St	1.00	95.52	19.1	F	603	904

Main Results for each time segment

16:00 - 16:15

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 - Moresby Parks Rd	486	121	208	764	0.635	479	660	0.0	1.7	12.473	B
2 - Cleator Moor Rd	606	152	223	961	0.630	599	464	0.0	1.7	9.876	A
3 - Main St	495	124	379	829	0.597	489	443	0.0	1.5	10.614	B

16:15 - 16:30

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 - Moresby Parks Rd	580	145	248	739	0.785	573	790	1.7	3.4	21.213	C
2 - Cleator Moor Rd	724	181	267	932	0.776	717	555	1.7	3.3	16.462	C
3 - Main St	591	148	454	781	0.756	585	530	1.5	2.9	18.247	C

16:30 - 16:45

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 - Moresby Parks Rd	710	178	290	713	0.996	671	929	3.4	13.1	59.375	F
2 - Cleator Moor Rd	886	222	312	903	0.982	847	649	3.3	13.0	47.414	E
3 - Main St	723	181	536	728	0.994	684	624	2.9	12.9	56.494	F

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 - Moresby Parks Rd	710	178	297	709	1.001	688	950	13.1	18.7	95.614	F
2 - Cleator Moor Rd	886	222	320	898	0.987	866	665	13.0	18.0	74.940	F
3 - Main St	723	181	548	720	1.005	699	638	12.9	19.1	95.522	F

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 - Moresby Parks Rd	580	145	276	722	0.803	635	867	18.7	4.8	52.375	F
2 - Cleator Moor Rd	724	181	296	914	0.792	779	616	18.0	4.3	33.946	D
3 - Main St	591	148	492	756	0.781	650	582	19.1	4.2	45.833	E

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 - Moresby Parks Rd	486	121	214	760	0.639	497	680	4.8	1.8	14.275	B
2 - Cleator Moor Rd	606	152	231	956	0.634	616	480	4.3	1.8	10.976	B
3 - Main St	495	124	390	822	0.601	505	458	4.2	1.6	11.997	B



Appendix K – JUNCTIONS 9 Output (J6)

Junctions 9							
PICADY 9 - Priority Intersection Module							
Version: 9.5.0.6896							
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Filename: J6.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J6 Main St_Thornton Rd Pri

Report generation date: 22/10/2018 11:04:01

- »2018 Surveyed Flows , AM
- »2018 Surveyed Flows , PM
- »2023 Baseline Flows, AM
- »2023 Baseline Flows, PM
- »2023 with Dev. Flows, AM
- »2023 with Dev. Flows, PM
- »2028 Baseline Flows, AM
- »2028 Baseline Flows, PM
- »2028 with Dev. Flows, AM
- »2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	2018 Surveyed Flows							
Stream B-C	0.3	8.96	0.23	2.63	0.3	8.59	0.21	2.34
Stream B-A	0.5	16.33	0.34		0.3	14.28	0.22	
Stream C-AB	0.5	5.24	0.18		0.7	5.88	0.26	
	2023 Baseline Flows							
Stream B-C	0.3	9.62	0.25	2.85	0.3	8.98	0.23	2.47
Stream B-A	0.6	18.39	0.38		0.3	15.41	0.24	
Stream C-AB	0.5	5.18	0.20		0.8	5.99	0.28	
	2023 with Dev. Flows							
Stream B-C	0.3	10.13	0.26	2.90	0.3	9.59	0.24	2.49
Stream B-A	0.7	20.95	0.41		0.3	17.45	0.26	
Stream C-AB	0.7	4.96	0.22		0.9	6.06	0.31	
	2028 Baseline Flows							
Stream B-C	0.4	10.09	0.26	3.03	0.3	9.27	0.24	2.57
Stream B-A	0.7	19.73	0.41		0.3	16.18	0.25	
Stream C-AB	0.6	5.18	0.21		0.8	6.05	0.30	
	2028 with Dev. Flows							
Stream B-C	0.4	10.70	0.28	3.12	0.3	9.95	0.25	2.61
Stream B-A	0.8	22.72	0.44		0.4	18.47	0.28	
Stream C-AB	0.7	4.97	0.23		1.0	6.13	0.32	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Main Street / Thornton Road Priority Junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

2018 Surveyed Flows , 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.63	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Main St (S)		Major
B	Thornton Rd		Minor
C	Main St (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 - Main St (N)	7.14			80.0	✓	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	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 - Thornton Rd	One lane plus flare	10.00	5.30	3.25	3.20	3.20	✓	1.00	40	72

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	569	0.098	0.249	0.157	0.355
1	B-C	726	0.106	0.267	-	-
1	C-B	620	0.228	0.228	-	-

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	2018 Surveyed Flows	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 - Main St (S)		ONE HOUR	✓	510	100.000
B - Thornton Rd		ONE HOUR	✓	209	100.000
C - Main St (N)		ONE HOUR	✓	521	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	75	435
	B - Thornton Rd	103	0	106
	C - Main St (N)	465	56	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	4
	B - Thornton Rd	0	0	0
	C - Main St (N)	4	0	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	0.23	8.96	0.3	A	97	146
B-A	0.34	16.33	0.5	C	95	142
C-AB	0.18	5.24	0.5	A	111	167
C-A					367	550
A-B					69	103
A-C					399	599

Main Results for each time segment

07:45 - 08:00

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	80	20	599	0.133	79	0.0	0.2	6.924	A
B-A	78	19	410	0.189	77	0.0	0.2	10.756	B
C-AB	77	19	779	0.098	76	0.0	0.2	5.207	A
C-A	316	79			316				
A-B	56	14			56				
A-C	327	82			327				

08:00 - 08:15

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	95	24	568	0.168	95	0.2	0.2	7.605	A
B-A	93	23	379	0.245	92	0.2	0.3	12.552	B
C-AB	104	26	814	0.128	104	0.2	0.3	5.170	A
C-A	364	91			364				
A-B	67	17			67				
A-C	391	98			391				

08:15 - 08:30

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	117	29	519	0.225	116	0.2	0.3	8.928	A
B-A	113	28	334	0.340	113	0.3	0.5	16.221	C
C-AB	152	38	864	0.176	152	0.3	0.5	5.168	A
C-A	421	105			421				
A-B	83	21			83				
A-C	479	120			479				

08:30 - 08:45

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	117	29	518	0.225	117	0.3	0.3	8.960	A
B-A	113	28	334	0.340	113	0.5	0.5	16.333	C
C-AB	152	38	865	0.176	152	0.5	0.5	5.185	A
C-A	421	105			421				
A-B	83	21			83				
A-C	479	120			479				

08:45 - 09:00

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	95	24	567	0.168	96	0.3	0.2	7.641	A
B-A	93	23	379	0.245	93	0.5	0.3	12.653	B
C-AB	104	26	815	0.128	105	0.5	0.3	5.201	A
C-A	364	91			364				
A-B	67	17			67				
A-C	391	98			391				

09:00 - 09:15

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	80	20	598	0.134	80	0.2	0.2	6.958	A
B-A	78	19	410	0.189	78	0.3	0.2	10.844	B
C-AB	77	19	780	0.099	77	0.3	0.2	5.236	A
C-A	315	79			315				
A-B	56	14			56				
A-C	327	82			327				

2018 Surveyed Flows , 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.34	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	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Main St (S)		ONE HOUR	✓	522	100.000
B - Thornton Rd		ONE HOUR	✓	167	100.000
C - Main St (N)		ONE HOUR	✓	511	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	96	426
	B - Thornton Rd	63	0	104
	C - Main St (N)	427	84	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	2
	B - Thornton Rd	0	0	1
	C - Main St (N)	1	0	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	0.21	8.59	0.3	A	95	143
B-A	0.22	14.28	0.3	B	58	87
C-AB	0.26	5.88	0.7	A	158	236
C-A					311	467
A-B					88	132
A-C					391	586

Main Results for each time segment

16:00 - 16:15

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	78	20	598	0.131	78	0.0	0.2	6.981	A
B-A	47	12	396	0.120	47	0.0	0.1	10.288	B
C-AB	110	27	757	0.145	109	0.0	0.3	5.573	A
C-A	275	69			275				
A-B	72	18			72				
A-C	321	80			321				

16:15 - 16:30

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	93	23	574	0.163	93	0.2	0.2	7.563	A
B-A	57	14	365	0.155	56	0.1	0.2	11.654	B
C-AB	148	37	788	0.188	147	0.3	0.4	5.654	A
C-A	311	78			311				
A-B	86	22			86				
A-C	383	96			383				

16:30 - 16:45

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	115	29	538	0.213	114	0.2	0.3	8.568	A
B-A	69	17	322	0.216	69	0.2	0.3	14.231	B
C-AB	214	53	832	0.257	213	0.4	0.6	5.861	A
C-A	349	87			349				
A-B	106	26			106				
A-C	469	117			469				

16:45 - 17:00

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	115	29	538	0.213	114	0.3	0.3	8.586	A
B-A	69	17	321	0.216	69	0.3	0.3	14.280	B
C-AB	214	54	832	0.258	214	0.6	0.7	5.881	A
C-A	348	87			348				
A-B	106	26			106				
A-C	469	117			469				

17:00 - 17:15

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	93	23	574	0.163	94	0.3	0.2	7.584	A
B-A	57	14	365	0.155	57	0.3	0.2	11.706	B
C-AB	148	37	789	0.188	149	0.7	0.4	5.685	A
C-A	311	78			311				
A-B	86	22			86				
A-C	383	96			383				

17:15 - 17:30

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	78	20	598	0.131	78	0.2	0.2	7.008	A
B-A	47	12	396	0.120	48	0.2	0.1	10.339	B
C-AB	111	28	758	0.146	111	0.4	0.3	5.604	A
C-A	274	69			274				
A-B	72	18			72				
A-C	321	80			321				

2023 Baseline Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.85	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)	Run automatically
D3	2023 Baseline Flows	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 - Main St (S)		ONE HOUR	✓	543	100.000
B - Thornton Rd		ONE HOUR	✓	221	100.000
C - Main St (N)		ONE HOUR	✓	566	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	79	464
	B - Thornton Rd	109	0	112
	C - Main St (N)	507	59	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	4
	B - Thornton Rd	0	0	0
	C - Main St (N)	4	0	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	0.25	9.62	0.3	A	103	154
B-A	0.38	18.39	0.6	C	100	150
C-AB	0.20	5.18	0.5	A	126	189
C-A					393	590
A-B					72	109
A-C					426	639

Main Results for each time segment

07:45 - 08:00

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	84	21	589	0.143	84	0.0	0.2	7.114	A
B-A	82	21	399	0.206	81	0.0	0.3	11.296	B
C-AB	85	21	797	0.107	84	0.0	0.2	5.147	A
C-A	341	85			341				
A-B	59	15			59				
A-C	349	87			349				

08:00 - 08:15

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	101	25	555	0.181	100	0.2	0.2	7.914	A
B-A	98	24	364	0.269	98	0.3	0.4	13.467	B
C-AB	117	29	836	0.140	117	0.2	0.3	5.112	A
C-A	392	98			392				
A-B	71	18			71				
A-C	417	104			417				

08:15 - 08:30

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	123	31	499	0.247	123	0.2	0.3	9.571	A
B-A	120	30	316	0.380	119	0.4	0.6	18.207	C
C-AB	175	44	892	0.196	174	0.3	0.5	5.136	A
C-A	448	112			448				
A-B	87	22			87				
A-C	511	128			511				

08:30 - 08:45

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	123	31	497	0.248	123	0.3	0.3	9.621	A
B-A	120	30	316	0.380	120	0.6	0.6	18.388	C
C-AB	175	44	893	0.196	175	0.5	0.5	5.155	A
C-A	448	112			448				
A-B	87	22			87				
A-C	511	128			511				

08:45 - 09:00

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	101	25	554	0.182	101	0.3	0.2	7.957	A
B-A	98	24	364	0.269	99	0.6	0.4	13.613	B
C-AB	118	29	837	0.141	118	0.5	0.4	5.146	A
C-A	391	98			391				
A-B	71	18			71				
A-C	417	104			417				

09:00 - 09:15

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	84	21	588	0.143	85	0.2	0.2	7.156	A
B-A	82	21	398	0.206	83	0.4	0.3	11.408	B
C-AB	86	21	797	0.108	86	0.4	0.2	5.178	A
C-A	340	85			340				
A-B	59	15			59				
A-C	349	87			349				

2023 Baseline Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.47	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Main St (S)		ONE HOUR	✓	556	100.000
B - Thornton Rd		ONE HOUR	✓	175	100.000
C - Main St (N)		ONE HOUR	✓	542	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	101	455
	B - Thornton Rd	66	0	109
	C - Main St (N)	453	89	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	2
	B - Thornton Rd	0	0	1
	C - Main St (N)	1	0	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	0.23	8.98	0.3	A	100	150
B-A	0.24	15.41	0.3	C	61	91
C-AB	0.28	5.99	0.8	A	175	263
C-A					322	483
A-B					93	139
A-C					418	626

Main Results for each time segment

16:00 - 16:15

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	82	21	590	0.139	81	0.0	0.2	7.133	A
B-A	50	12	386	0.129	49	0.0	0.1	10.661	B
C-AB	121	30	766	0.158	119	0.0	0.3	5.589	A
C-A	287	72			287				
A-B	76	19			76				
A-C	343	86			343				

16:15 - 16:30

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	98	24	564	0.174	98	0.2	0.2	7.787	A
B-A	59	15	353	0.168	59	0.1	0.2	12.243	B
C-AB	164	41	799	0.205	163	0.3	0.5	5.699	A
C-A	323	81			323				
A-B	91	23			91				
A-C	409	102			409				

16:30 - 16:45

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	120	30	525	0.229	120	0.2	0.3	8.960	A
B-A	73	18	306	0.237	72	0.2	0.3	15.346	C
C-AB	240	60	847	0.284	239	0.5	0.8	5.970	A
C-A	357	89			357				
A-B	111	28			111				
A-C	501	125			501				

16:45 - 17:00

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	120	30	525	0.229	120	0.3	0.3	8.982	A
B-A	73	18	306	0.237	73	0.3	0.3	15.414	C
C-AB	241	60	847	0.284	241	0.8	0.8	5.995	A
C-A	356	89			356				
A-B	111	28			111				
A-C	501	125			501				

17:00 - 17:15

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	98	24	564	0.174	98	0.3	0.2	7.812	A
B-A	59	15	353	0.168	60	0.3	0.2	12.309	B
C-AB	165	41	800	0.206	166	0.8	0.5	5.731	A
C-A	323	81			323				
A-B	91	23			91				
A-C	409	102			409				

17:15 - 17:30

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	82	21	590	0.139	82	0.2	0.2	7.166	A
B-A	50	12	386	0.129	50	0.2	0.1	10.725	B
C-AB	122	30	767	0.158	122	0.5	0.3	5.626	A
C-A	287	72			287				
A-B	76	19			76				
A-C	343	86			343				

2023 with Dev. Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.90	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	2023 with Dev. Flows	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 - Main St (S)		ONE HOUR	✓	574	100.000
B - Thornton Rd		ONE HOUR	✓	221	100.000
C - Main St (N)		ONE HOUR	✓	654	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	79	495
	B - Thornton Rd	109	0	112
	C - Main St (N)	595	59	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	4
	B - Thornton Rd	0	0	0
	C - Main St (N)	4	0	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	0.26	10.13	0.3	B	103	154
B-A	0.41	20.95	0.7	C	100	150
C-AB	0.22	4.96	0.7	A	146	219
C-A					454	682
A-B					72	109
A-C					454	681

Main Results for each time segment

07:45 - 08:00

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	84	21	581	0.145	84	0.0	0.2	7.226	A
B-A	82	21	383	0.215	81	0.0	0.3	11.899	B
C-AB	95	24	840	0.113	94	0.0	0.3	4.930	A
C-A	397	99			397				
A-B	59	15			59				
A-C	373	93			373				

08:00 - 08:15

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	101	25	544	0.185	100	0.2	0.2	8.105	A
B-A	98	24	345	0.284	98	0.3	0.4	14.513	B
C-AB	134	34	888	0.151	134	0.3	0.4	4.883	A
C-A	454	113			454				
A-B	71	18			71				
A-C	445	111			445				

08:15 - 08:30

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	123	31	480	0.257	123	0.2	0.3	10.059	B
B-A	120	30	292	0.411	119	0.4	0.7	20.668	C
C-AB	207	52	959	0.216	206	0.4	0.7	4.917	A
C-A	513	128			513				
A-B	87	22			87				
A-C	545	136			545				

08:30 - 08:45

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	123	31	479	0.258	123	0.3	0.3	10.131	B
B-A	120	30	292	0.411	120	0.7	0.7	20.950	C
C-AB	208	52	959	0.216	208	0.7	0.7	4.939	A
C-A	512	128			512				
A-B	87	22			87				
A-C	545	136			545				

08:45 - 09:00

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	101	25	543	0.186	101	0.3	0.2	8.162	A
B-A	98	24	345	0.284	99	0.7	0.4	14.715	B
C-AB	135	34	889	0.152	136	0.7	0.4	4.922	A
C-A	453	113			453				
A-B	71	18			71				
A-C	445	111			445				

09:00 - 09:15

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	84	21	580	0.145	85	0.2	0.2	7.271	A
B-A	82	21	382	0.215	83	0.4	0.3	12.034	B
C-AB	96	24	840	0.114	97	0.4	0.3	4.961	A
C-A	396	99			396				
A-B	59	15			59				
A-C	373	93			373				

2023 with Dev. Flows, 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	Main St /Thornton Rd Priority Junction	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)	Run automatically
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Main St (S)		ONE HOUR	✓	632	100.000
B - Thornton Rd		ONE HOUR	✓	175	100.000
C - Main St (N)		ONE HOUR	✓	582	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	101	531
	B - Thornton Rd	66	0	109
	C - Main St (N)	493	89	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	2
	B - Thornton Rd	0	0	1
	C - Main St (N)	1	0	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	0.24	9.59	0.3	A	100	150
B-A	0.26	17.45	0.3	C	61	91
C-AB	0.31	6.06	0.9	A	190	286
C-A					344	516
A-B					93	139
A-C					487	731

Main Results for each time segment

16:00 - 16:15

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	82	21	575	0.143	81	0.0	0.2	7.359	A
B-A	50	12	368	0.135	49	0.0	0.2	11.275	B
C-AB	128	32	777	0.165	127	0.0	0.4	5.559	A
C-A	310	77			310				
A-B	76	19			76				
A-C	400	100			400				

16:15 - 16:30

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	98	24	545	0.180	98	0.2	0.2	8.122	A
B-A	59	15	331	0.179	59	0.2	0.2	13.235	B
C-AB	177	44	813	0.217	176	0.4	0.5	5.688	A
C-A	346	87			346				
A-B	91	23			91				
A-C	477	119			477				

16:30 - 16:45

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	120	30	500	0.240	120	0.2	0.3	9.557	A
B-A	73	18	279	0.260	72	0.2	0.3	17.349	C
C-AB	265	66	866	0.306	263	0.5	0.9	6.029	A
C-A	376	94			376				
A-B	111	28			111				
A-C	585	146			585				

16:45 - 17:00

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	120	30	499	0.240	120	0.3	0.3	9.589	A
B-A	73	18	279	0.261	73	0.3	0.3	17.455	C
C-AB	266	66	867	0.306	266	0.9	0.9	6.060	A
C-A	375	94			375				
A-B	111	28			111				
A-C	585	146			585				

17:00 - 17:15

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	98	24	545	0.180	98	0.3	0.2	8.154	A
B-A	59	15	330	0.180	60	0.3	0.2	13.328	B
C-AB	178	44	815	0.218	179	0.9	0.5	5.731	A
C-A	346	86			346				
A-B	91	23			91				
A-C	477	119			477				

17:15 - 17:30

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	82	21	574	0.143	82	0.2	0.2	7.394	A
B-A	50	12	367	0.135	50	0.2	0.2	11.352	B
C-AB	129	32	778	0.166	130	0.5	0.4	5.599	A
C-A	309	77			309				
A-B	76	19			76				
A-C	400	100			400				

2028 Baseline Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		3.03	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	2028 Baseline Flows	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 - Main St (S)		ONE HOUR	✓	561	100.000
B - Thornton Rd		ONE HOUR	✓	229	100.000
C - Main St (N)		ONE HOUR	✓	584	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	82	479
	B - Thornton Rd	113	0	116
	C - Main St (N)	523	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	4
	B - Thornton Rd	0	0	0
	C - Main St (N)	4	0	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	0.26	10.09	0.4	B	106	160
B-A	0.41	19.73	0.7	C	104	156
C-AB	0.21	5.18	0.6	A	134	201
C-A					402	603
A-B					75	113
A-C					440	659

Main Results for each time segment

07:45 - 08:00

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	87	22	584	0.150	87	0.0	0.2	7.233	A
B-A	85	21	393	0.216	84	0.0	0.3	11.607	B
C-AB	90	23	803	0.112	89	0.0	0.2	5.140	A
C-A	350	87			350				
A-B	62	15			62				
A-C	361	90			361				

08:00 - 08:15

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	104	26	548	0.190	104	0.2	0.2	8.113	A
B-A	102	25	358	0.284	101	0.3	0.4	14.011	B
C-AB	125	31	844	0.148	124	0.2	0.4	5.113	A
C-A	400	100			400				
A-B	74	18			74				
A-C	431	108			431				

08:15 - 08:30

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	128	32	486	0.263	127	0.2	0.4	10.022	B
B-A	124	31	307	0.405	123	0.4	0.7	19.490	C
C-AB	187	47	902	0.207	186	0.4	0.6	5.156	A
C-A	456	114			456				
A-B	90	23			90				
A-C	527	132			527				

08:30 - 08:45

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	128	32	485	0.264	128	0.4	0.4	10.088	B
B-A	124	31	307	0.406	124	0.7	0.7	19.730	C
C-AB	187	47	903	0.208	187	0.6	0.6	5.179	A
C-A	456	114			456				
A-B	90	23			90				
A-C	527	132			527				

08:45 - 09:00

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	104	26	546	0.191	105	0.4	0.2	8.168	A
B-A	102	25	357	0.284	103	0.7	0.4	14.191	B
C-AB	125	31	844	0.148	126	0.6	0.4	5.151	A
C-A	400	100			400				
A-B	74	18			74				
A-C	431	108			431				

09:00 - 09:15

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	87	22	582	0.150	88	0.2	0.2	7.279	A
B-A	85	21	393	0.217	86	0.4	0.3	11.737	B
C-AB	91	23	804	0.113	91	0.4	0.3	5.170	A
C-A	349	87			349				
A-B	62	15			62				
A-C	361	90			361				

2028 Baseline Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.57	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	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Main St (S)		ONE HOUR	✓	574	100.000
B - Thornton Rd		ONE HOUR	✓	182	100.000
C - Main St (N)		ONE HOUR	✓	558	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	105	469
	B - Thornton Rd	69	0	113
	C - Main St (N)	467	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	2
	B - Thornton Rd	0	0	1
	C - Main St (N)	1	0	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	0.24	9.27	0.3	A	104	156
B-A	0.25	16.18	0.3	C	63	95
C-AB	0.30	6.05	0.8	A	184	276
C-A					328	492
A-B					96	145
A-C					430	646

Main Results for each time segment

16:00 - 16:15

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	85	21	586	0.145	84	0.0	0.2	7.240	A
B-A	52	13	381	0.136	51	0.0	0.2	10.889	B
C-AB	126	31	771	0.163	125	0.0	0.3	5.589	A
C-A	294	74			294				
A-B	79	20			79				
A-C	353	88			353				

16:15 - 16:30

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	102	25	559	0.182	101	0.2	0.2	7.947	A
B-A	62	16	347	0.179	62	0.2	0.2	12.616	B
C-AB	172	43	806	0.213	171	0.3	0.5	5.714	A
C-A	330	82			330				
A-B	94	24			94				
A-C	422	105			422				

16:30 - 16:45

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	124	31	517	0.241	124	0.2	0.3	9.247	A
B-A	76	19	299	0.254	75	0.2	0.3	16.094	C
C-AB	253	63	855	0.296	252	0.5	0.8	6.023	A
C-A	361	90			361				
A-B	116	29			116				
A-C	516	129			516				

16:45 - 17:00

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	124	31	516	0.241	124	0.3	0.3	9.274	A
B-A	76	19	298	0.255	76	0.3	0.3	16.180	C
C-AB	254	63	856	0.297	254	0.8	0.8	6.048	A
C-A	360	90			360				
A-B	116	29			116				
A-C	516	129			516				

17:00 - 17:15

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	102	25	558	0.182	102	0.3	0.2	7.977	A
B-A	62	16	347	0.179	62	0.3	0.2	12.694	B
C-AB	172	43	806	0.214	174	0.8	0.5	5.749	A
C-A	329	82			329				
A-B	94	24			94				
A-C	422	105			422				

17:15 - 17:30

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	85	21	585	0.145	85	0.2	0.2	7.274	A
B-A	52	13	381	0.136	52	0.2	0.2	10.961	B
C-AB	127	32	772	0.164	127	0.5	0.3	5.627	A
C-A	293	73			293				
A-B	79	20			79				
A-C	353	88			353				

2028 with Dev. Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		3.12	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
D9	2028 with Dev. Flows	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 - Main St (S)		ONE HOUR	✓	592	100.000
B - Thornton Rd		ONE HOUR	✓	229	100.000
C - Main St (N)		ONE HOUR	✓	672	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	82	510
	B - Thornton Rd	113	0	116
	C - Main St (N)	611	61	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	4
	B - Thornton Rd	0	0	0
	C - Main St (N)	4	0	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	0.28	10.70	0.4	B	106	160
B-A	0.44	22.72	0.8	C	104	156
C-AB	0.23	4.97	0.7	A	155	233
C-A					461	692
A-B					75	113
A-C					468	702

Main Results for each time segment

07:45 - 08:00

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	87	22	576	0.152	87	0.0	0.2	7.351	A
B-A	85	21	377	0.226	84	0.0	0.3	12.242	B
C-AB	101	25	846	0.119	100	0.0	0.3	4.927	A
C-A	405	101			405				
A-B	62	15			62				
A-C	384	96			384				

08:00 - 08:15

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	104	26	536	0.194	104	0.2	0.2	8.325	A
B-A	102	25	338	0.300	101	0.3	0.4	15.150	C
C-AB	143	36	896	0.159	142	0.3	0.4	4.891	A
C-A	462	115			462				
A-B	74	18			74				
A-C	458	115			458				

08:15 - 08:30

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	128	32	466	0.274	127	0.2	0.4	10.606	B
B-A	124	31	283	0.440	123	0.4	0.8	22.332	C
C-AB	222	55	969	0.229	221	0.4	0.7	4.952	A
C-A	518	130			518				
A-B	90	23			90				
A-C	562	140			562				

08:30 - 08:45

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	128	32	464	0.275	128	0.4	0.4	10.704	B
B-A	124	31	283	0.440	124	0.8	0.8	22.715	C
C-AB	222	56	969	0.229	222	0.7	0.7	4.973	A
C-A	517	129			517				
A-B	90	23			90				
A-C	562	140			562				

08:45 - 09:00

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	104	26	534	0.195	105	0.4	0.2	8.391	A
B-A	102	25	338	0.301	103	0.8	0.4	15.405	C
C-AB	143	36	897	0.160	144	0.7	0.4	4.931	A
C-A	461	115			461				
A-B	74	18			74				
A-C	458	115			458				

09:00 - 09:15

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	87	22	574	0.152	88	0.2	0.2	7.401	A
B-A	85	21	377	0.226	86	0.4	0.3	12.399	B
C-AB	102	25	847	0.120	102	0.4	0.3	4.961	A
C-A	404	101			404				
A-B	62	15			62				
A-C	384	96			384				

2028 with Dev. Flows, 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	Main St /Thornton Rd Priority Junction	T-Junction	Two-way		2.61	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Main St (S)		ONE HOUR	✓	651	100.000
B - Thornton Rd		ONE HOUR	✓	182	100.000
C - Main St (N)		ONE HOUR	✓	598	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	105	546
	B - Thornton Rd	69	0	113
	C - Main St (N)	507	91	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Main St (S)	B - Thornton Rd	C - Main St (N)
From	A - Main St (S)	0	0	2
	B - Thornton Rd	0	0	1
	C - Main St (N)	1	0	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	0.25	9.95	0.3	A	104	156
B-A	0.28	18.47	0.4	C	63	95
C-AB	0.32	6.13	1.0	A	200	300
C-A					349	523
A-B					96	145
A-C					501	752

Main Results for each time segment

16:00 - 16:15

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	85	21	570	0.149	84	0.0	0.2	7.474	A
B-A	52	13	363	0.143	51	0.0	0.2	11.538	B
C-AB	134	33	782	0.171	132	0.0	0.4	5.564	A
C-A	316	79			316				
A-B	79	20			79				
A-C	411	103			411				

16:15 - 16:30

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	102	25	539	0.188	101	0.2	0.2	8.301	A
B-A	62	16	325	0.191	62	0.2	0.2	13.686	B
C-AB	185	46	820	0.226	185	0.4	0.6	5.709	A
C-A	352	88			352				
A-B	94	24			94				
A-C	491	123			491				

16:30 - 16:45

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	124	31	490	0.254	124	0.2	0.3	9.905	A
B-A	76	19	271	0.280	75	0.2	0.4	18.339	C
C-AB	280	70	874	0.320	278	0.6	1.0	6.097	A
C-A	379	95			379				
A-B	116	29			116				
A-C	601	150			601				

16:45 - 17:00

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	124	31	490	0.254	124	0.3	0.3	9.949	A
B-A	76	19	271	0.281	76	0.4	0.4	18.475	C
C-AB	281	70	875	0.321	280	1.0	1.0	6.134	A
C-A	378	94			378				
A-B	116	29			116				
A-C	601	150			601				

17:00 - 17:15

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	102	25	538	0.189	102	0.3	0.2	8.338	A
B-A	62	16	324	0.191	63	0.4	0.2	13.796	B
C-AB	186	47	821	0.227	188	1.0	0.6	5.757	A
C-A	351	88			351				
A-B	94	24			94				
A-C	491	123			491				

17:15 - 17:30

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	85	21	570	0.149	85	0.2	0.2	7.514	A
B-A	52	13	362	0.143	52	0.2	0.2	11.626	B
C-AB	135	34	783	0.172	136	0.6	0.4	5.609	A
C-A	315	79			315				
A-B	79	20			79				
A-C	411	103			411				

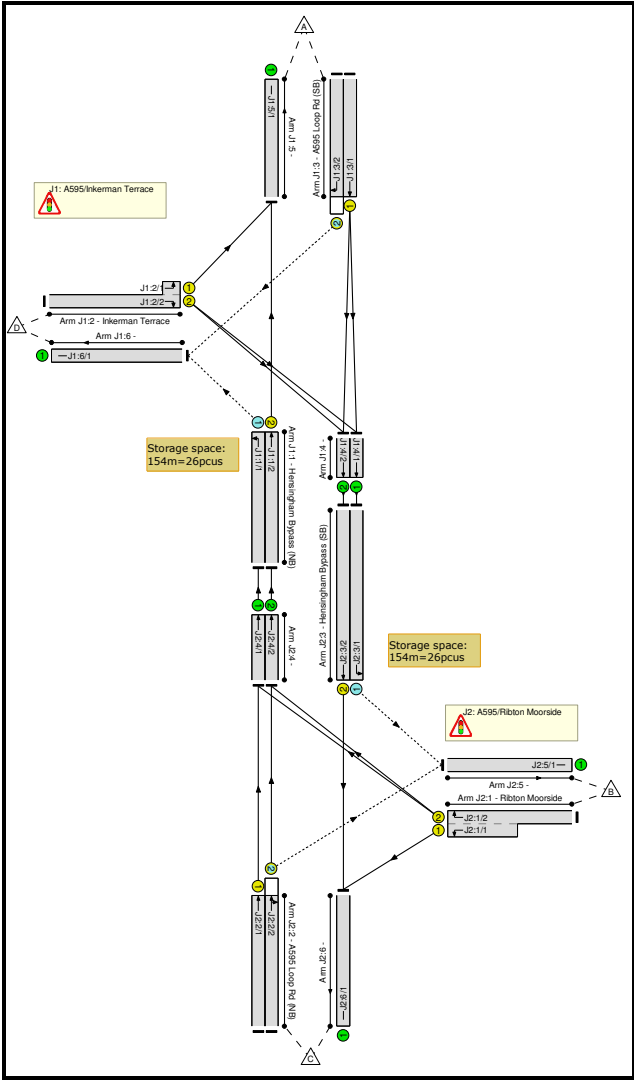


Appendix L – LinSig Output (J7 & J14)

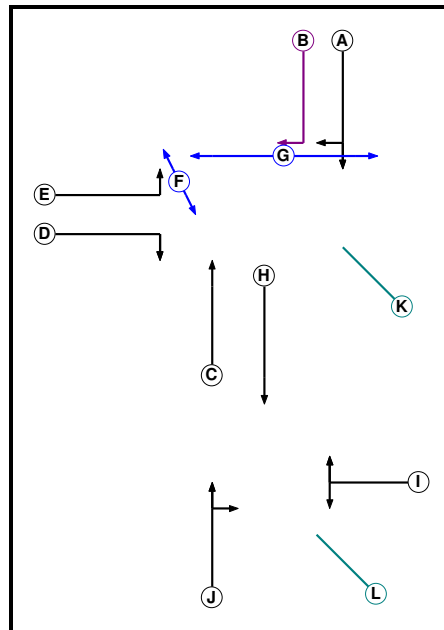
User and Project Details

Project:	
Title:	
Location:	
Additional detail:	
File name:	J7&J14.lsg3x
Author:	
Company:	
Address:	

Network Layout Diagram



Phase Diagram



Phase Input Data

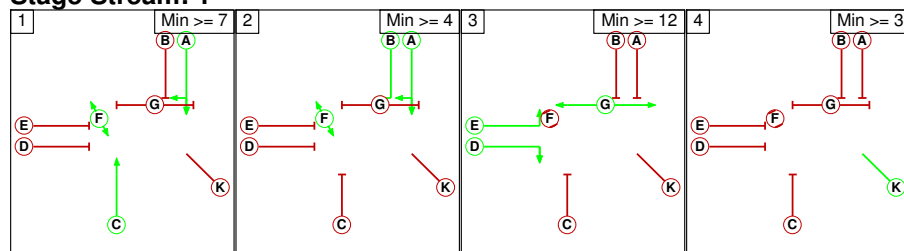
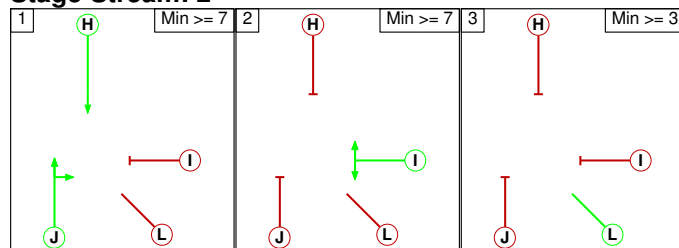
Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Ind. Arrow	1	A	4	4
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Pedestrian	1		6	6
G	Pedestrian	1		12	12
H	Traffic	2		7	7
I	Traffic	2		7	7
J	Traffic	2		7	7
K	Dummy	1		3	3
L	Dummy	2		3	3

Phase Intergreens Matrix

Terminating Phase	Starting Phase												
		A	B	C	D	E	F	G	H	I	J	K	L
	A		-	-	7	-	-	7	-	-	-	3	-
	B	-		7	7	-	-	7	-	-	-	3	-
	C	-	7		7	9	-	9	-	-	-	3	-
	D	6	6	6		-	-	-	-	-	-	3	-
	E	-	-	6	-		6	-	-	-	-	3	-
	F	-	-	-	-	7		-	-	-	-	3	-
	G	15	15	15	-	-	-		-	-	-	3	-
	H	-	-	-	-	-	-	-		7	-	-	3
	I	-	-	-	-	-	-	-	7		7	-	3
	J	-	-	-	-	-	-	-	-	7		-	3
	K	2	2	2	2	2	2	2	-	-	-		-
	L	-	-	-	-	-	-	-	2	2	2	-	

Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	A C F
1	2	A B F
1	3	D E G
1	4	K
2	1	H J
2	2	I
2	3	L

Stage Diagram**Stage Stream: 1****Stage Stream: 2**

Phase Delays**Stage Stream: 1**

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	3	F	Losing	2	2
3	1	D	Losing	9	9
3	2	D	Losing	9	9

Stage Stream: 2

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

Prohibited Stage Change**Stage Stream: 1**

	To Stage				
	1	2	3	4	
From Stage	1		7	9	3
	2	7		7	3
	3	15	15		3
	4	2	2	2	

Stage Stream: 2

	To Stage			
	1	2	3	
From Stage	1		7	3
	2	7		3
	3	2	2	

Give-Way Lane Input Data

Junction: J1: A595/Inkerman Terrace											
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)
J1:1/1 (Hensingham Bypass (NB))	J1:6/1 (Left)	1049	0	J1:3/2	0.22	All	-	-	-	-	-
J1:3/2 (A595 Loop Rd (SB))	J1:6/1 (Right)	1439	0	J1:1/2	1.09	All	2.00	-	0.50	2	2.00

Junction: J2: A595/Ribton Moorside											
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)
J2:2/2 (A595 Loop Rd (NB))	J2:5/1 (Right)	1439	0	J2:3/2	1.09	All	2.00	-	0.50	2	2.00
J2:3/1 (Hensingham Bypass (SB))	J2:5/1 (Left)	715	0	J2:2/2	0.22	To J2:5/1 (Right)	-	-	-	-	-

Lane Input Data

Junction: J1: A595/Inkerman Terrace												
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)
J1:1/1 (Hensingham Bypass (NB))	O		2	3	24.9	Inf	-	-	-	-	-	-
J1:1/2 (Hensingham Bypass (NB))	U	C	2	3	24.9	Geom	-	5.00	0.00	Y	Arm J1:5 Ahead	Inf
J1:2/1 (Inkerman Terrace)	U	E	2	3	2.0	Geom	-	5.00	0.00	Y	Arm J1:5 Left	17.67
J1:2/2 (Inkerman Terrace)	U	D	2	3	60.0	Geom	-	5.00	0.00	Y	Arm J1:4 Right	20.45
J1:3/1 (A595 Loop Rd (SB))	U	A	2	3	60.0	Geom	-	2.95	0.00	Y	Arm J1:4 Ahead	Inf
J1:3/2 (A595 Loop Rd (SB))	O	A B	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J1:6 Right	9.04
J1:4/1	U		2	3	6.3	Inf	-	-	-	-	-	-
J1:4/2	U		2	3	6.3	Inf	-	-	-	-	-	-
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: A595/Ribton Moorside												
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)
J2:1/1 (Ribton Moorside)	U	I	2	3	8.0	Geom	-	4.10	0.00	Y	Arm J2:6 Left	16.27
J2:1/2 (Ribton Moorside)	U	I	2	3	60.0	Geom	-	4.10	0.00	Y	Arm J2:4 Right	11.93
J2:2/1 (A595 Loop Rd (NB))	U	J	2	3	60.0	Geom	-	3.65	0.00	Y	Arm J2:4 Ahead	Inf
J2:2/2 (A595 Loop Rd (NB))	O	J	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:4 Ahead	Inf
J2:3/1 (Hensingham Bypass (SB))	O		2	3	24.9	Inf	-	-	-	-	Arm J2:5 Right	6.93
J2:3/2 (Hensingham Bypass (SB))	U	H	2	3	24.9	Geom	-	4.80	0.00	Y	Arm J2:6 Ahead	Inf
J2:4/1	U		2	3	4.7	Inf	-	-	-	-	-	-
J2:4/2	U		2	3	4.7	Inf	-	-	-	-	-	-
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: 'AM Peak Hour 2018 Surveyed Year'	08:00	09:00	01:00	
2: 'PM Peak Hour 2018 Surveyed Year'	16:15	17:15	01:00	
3: 'AM Peak Hour 2023 Baseline Flows'	08:00	09:00	01:00	
4: 'PM Peak Hour 2023 Baseline Flows'	16:15	17:15	01:00	
5: 'AM Peak Hour 2023 Assessment Flows'	08:00	09:00	01:00	
6: 'PM Peak Hour 2023 Assessment Flows'	16:15	17:15	01:00	
7: 'AM Peak Hour 2028 Baseline Flows'	08:00	09:00	01:00	
8: 'PM Peak Hour 2028 Baseline Flows'	16:15	17:15	01:00	
9: 'AM Peak Hour 2028 Assessment Flows'	08:00	09:00	01:00	
10: 'PM Peak Hour 2028 Assessment Flows'	16:15	17:15	01:00	

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	175	528	195	898
	B	233	0	10	190	433
	C	372	2	0	311	685
	D	99	64	243	0	406
	Tot.	704	241	781	696	2422

Traffic Lane Flows

Lane	Scenario 1: AM Peak Hour 2018 Surveyed Year
Junction: J1: A595/Inkerman Terrace	
J1:1/1	501
J1:1/2	605
J1:2/1 (short)	99
J1:2/2 (with short)	406(In) 307(Out)
J1:3/1	703
J1:3/2	195
J1:4/1	239
J1:4/2	771
J1:5/1	704
J1:6/1	696
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	10
J2:1/2 (with short)	433(In) 423(Out)
J2:2/1	311
J2:2/2	374
J2:3/1	239
J2:3/2	771
J2:4/1	501
J2:4/2	605
J2:5/1	241
J2:6/1	781

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1963	1963
				Arm J2:5 Right	6.93	0.5 %		
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: 'PM Peak Hour 2018 Surveyed Year' (FG2: 'PM Peak Hour 2018 Surveyed Year', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	197	405	142	744
	B	224	0	6	150	380
	C	537	2	0	387	926
	D	139	155	331	0	625
	Tot.	900	354	742	679	2675

Traffic Lane Flows

Lane	Scenario 2: PM Peak Hour 2018 Surveyed Year
Junction: J1: A595/Inkerman Terrace	
J1:1/1	537
J1:1/2	761
J1:2/1 (short)	139
J1:2/2 (with short)	625(In) 486(Out)
J1:3/1	602
J1:3/2	142
J1:4/1	352
J1:4/2	736
J1:5/1	900
J1:6/1	679
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	6
J2:1/2 (with short)	380(In) 374(Out)
J2:2/1	387
J2:2/2	539
J2:3/1	352
J2:3/2	736
J2:4/1	537
J2:4/2	761
J2:5/1	354
J2:6/1	742

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.6 %	1963	1963
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow					0.4 %	Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 3: 'AM Peak Hour 2023 Baseline Flows' (FG3: 'AM Peak Hour 2023 Baseline Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	185	558	205	948
	B	246	0	11	201	458
	C	393	2	0	328	723
	D	104	68	257	0	429
	Tot.	743	255	826	734	2558

Traffic Lane Flows

Lane	Scenario 3: AM Peak Hour 2023 Baseline Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	529
J1:1/2	639
J1:2/1 (short)	104
J1:2/2 (with short)	429(In) 325(Out)
J1:3/1	743
J1:3/2	205
J1:4/1	253
J1:4/2	815
J1:5/1	743
J1:6/1	734
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	11
J2:1/2 (with short)	458(In) 447(Out)
J2:2/1	328
J2:2/2	395
J2:3/1	253
J2:3/2	815
J2:4/1	529
J2:4/2	639
J2:5/1	255
J2:6/1	826

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1963	1963
				Arm J2:5 Right	6.93	0.5 %		
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: 'PM Peak Hour 2023 Baseline Flows' (FG4: 'PM Peak Hour 2023 Baseline Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	207	426	150	783
	B	235	0	6	157	398
	C	565	2	0	407	974
	D	147	163	348	0	658
	Tot.	947	372	780	714	2813

Traffic Lane Flows

Lane	Scenario 4: PM Peak Hour 2023 Baseline Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	564
J1:1/2	800
J1:2/1 (short)	147
J1:2/2 (with short)	658(In) 511(Out)
J1:3/1	633
J1:3/2	150
J1:4/1	370
J1:4/2	774
J1:5/1	947
J1:6/1	714
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	6
J2:1/2 (with short)	398(In) 392(Out)
J2:2/1	407
J2:2/2	567
J2:3/1	370
J2:3/2	774
J2:4/1	564
J2:4/2	800
J2:5/1	372
J2:6/1	780

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.6 %	1964	1964
				Arm J2:5 Right	6.93	0.4 %		
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 5: 'AM Peak Hour 2023 Assessment Flows' (FG5: 'AM Peak Hour 2023 Assessment Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	187	558	210	955
	B	249	0	11	207	467
	C	393	2	0	331	726
	D	106	69	258	0	433
	Tot.	748	258	827	748	2581

Traffic Lane Flows

Lane	Scenario 5: AM Peak Hour 2023 Assessment Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	538
J1:1/2	642
J1:2/1 (short)	106
J1:2/2 (with short)	433(In) 327(Out)
J1:3/1	745
J1:3/2	210
J1:4/1	256
J1:4/2	816
J1:5/1	748
J1:6/1	748
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	11
J2:1/2 (with short)	467(In) 456(Out)
J2:2/1	331
J2:2/2	395
J2:3/1	256
J2:3/2	816
J2:4/1	538
J2:4/2	642
J2:5/1	258
J2:6/1	827

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1963	1963
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow					0.5 %	Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: 'PM Peak Hour 2023 Assessment Flows' (FG6: 'PM Peak Hour 2023 Assessment Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	210	426	152	788
	B	237	0	6	160	403
	C	565	2	0	409	976
	D	152	168	350	0	670
	Tot.	954	380	782	721	2837

Traffic Lane Flows

Lane	Scenario 6: PM Peak Hour 2023 Assessment Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	569
J1:1/2	802
J1:2/1 (short)	152
J1:2/2 (with short)	670(In) 518(Out)
J1:3/1	636
J1:3/2	152
J1:4/1	378
J1:4/2	776
J1:5/1	954
J1:6/1	721
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	6
J2:1/2 (with short)	403(In) 397(Out)
J2:2/1	409
J2:2/2	567
J2:3/1	378
J2:3/2	776
J2:4/1	569
J2:4/2	802
J2:5/1	380
J2:6/1	782

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.6 %	1964	1964
				Arm J2:5 Right	6.93	0.4 %		
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 7: 'AM Peak Hour 2028 Baseline Flows' (FG7: 'AM Peak Hour 2028 Baseline Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	191	576	214	981
	B	255	0	11	208	474
	C	406	2	0	339	747
	D	108	70	265	0	443
	Tot.	769	263	852	761	2645

Traffic Lane Flows

Lane	Scenario 7: AM Peak Hour 2028 Baseline Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	547
J1:1/2	661
J1:2/1 (short)	108
J1:2/2 (with short)	443(In) 335(Out)
J1:3/1	767
J1:3/2	214
J1:4/1	261
J1:4/2	841
J1:5/1	769
J1:6/1	761
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	11
J2:1/2 (with short)	474(In) 463(Out)
J2:2/1	339
J2:2/2	408
J2:3/1	261
J2:3/2	841
J2:4/1	547
J2:4/2	661
J2:5/1	263
J2:6/1	852

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1963	1963
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow					0.5 %	Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: 'PM Peak Hour 2028 Baseline Flows' (FG8: 'PM Peak Hour 2028 Baseline Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	214	439	155	808
	B	242	0	6	162	410
	C	583	2	0	420	1005
	D	152	168	359	0	679
	Tot.	977	384	804	737	2902

Traffic Lane Flows

Lane	Scenario 8: PM Peak Hour 2028 Baseline Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	582
J1:1/2	825
J1:2/1 (short)	152
J1:2/2 (with short)	679(In) 527(Out)
J1:3/1	653
J1:3/2	155
J1:4/1	382
J1:4/2	798
J1:5/1	977
J1:6/1	737
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	6
J2:1/2 (with short)	410(In) 404(Out)
J2:2/1	420
J2:2/2	585
J2:3/1	382
J2:3/2	798
J2:4/1	582
J2:4/2	825
J2:5/1	384
J2:6/1	804

Lane Saturation Flows

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.7 %	1964	1964
J2:3/1 (Hensingham Bypass (SB) Lane 1)	Infinite Saturation Flow					0.3 %	Inf	Inf
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 9: 'AM Peak Hour 2028 Assessment Flows' (FG9: 'AM Peak Hour 2028 Assessment Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	193	576	219	988
	B	258	0	10	214	482
	C	406	2	0	342	750
	D	110	71	267	0	448
	Tot.	774	266	853	775	2668

Traffic Lane Flows

Lane	Scenario 9: AM Peak Hour 2028 Assessment Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	556
J1:1/2	664
J1:2/1 (short)	110
J1:2/2 (with short)	448(In) 338(Out)
J1:3/1	769
J1:3/2	219
J1:4/1	264
J1:4/2	843
J1:5/1	774
J1:6/1	775
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	10
J2:1/2 (with short)	482(In) 472(Out)
J2:2/1	342
J2:2/2	408
J2:3/1	264
J2:3/2	843
J2:4/1	556
J2:4/2	664
J2:5/1	266
J2:6/1	853

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.5 %	1963	1963
Arm J2:5 Right				6.93	0.5 %			
J2:3/1 (Hensingham Bypass (SB) Lane 1)				Infinite Saturation Flow				
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: 'PM Peak Hour 2028 Assessment Flows' (FG10: 'PM Peak Hour 2028 Assessment Flows', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	217	439	157	813
	B	244	0	6	165	415
	C	583	2	0	422	1007
	D	157	173	361	0	691
	Tot.	984	392	806	744	2926

Traffic Lane Flows

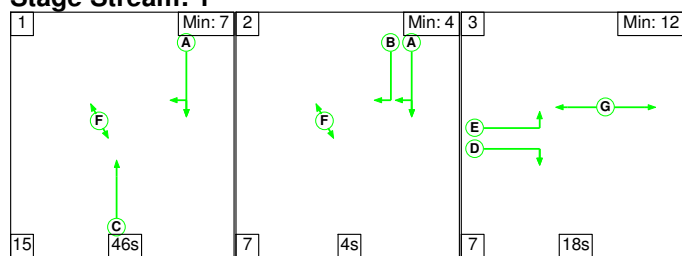
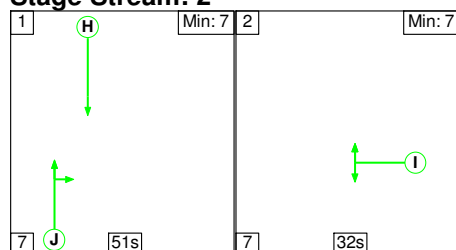
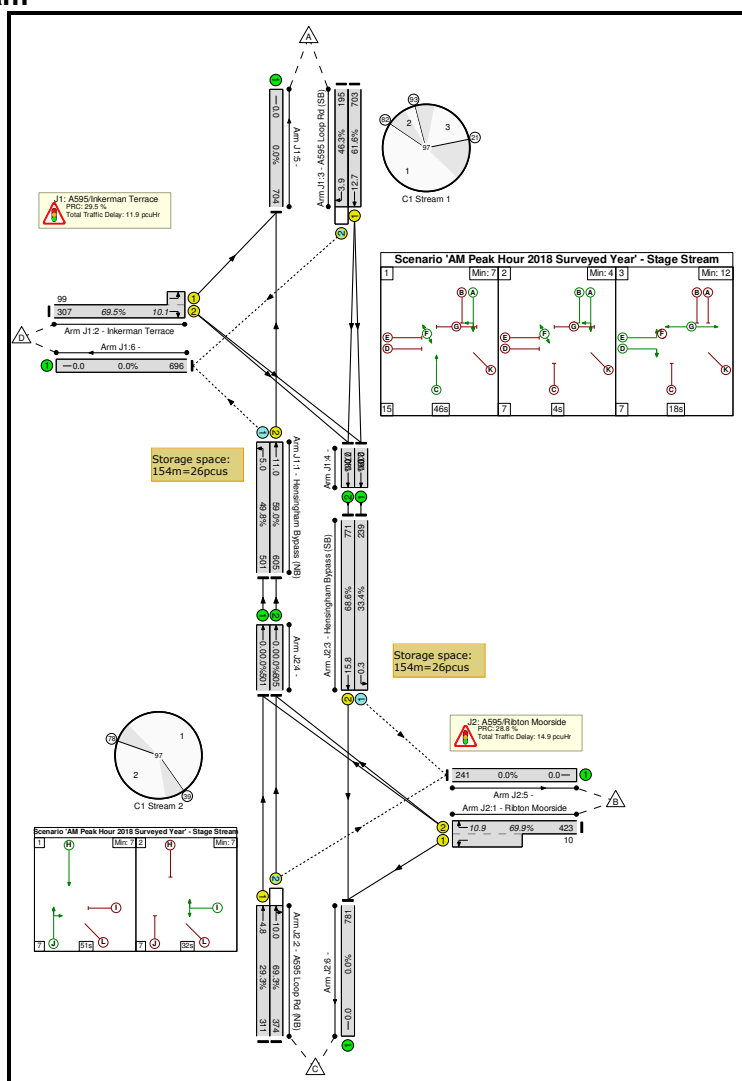
Lane	Scenario 10: PM Peak Hour 2028 Assessment Flows
Junction: J1: A595/Inkerman Terrace	
J1:1/1	587
J1:1/2	827
J1:2/1 (short)	157
J1:2/2 (with short)	691(In) 534(Out)
J1:3/1	656
J1:3/2	157
J1:4/1	390
J1:4/2	800
J1:5/1	984
J1:6/1	744
Junction: J2: A595/Ribton Moorside	
J2:1/1 (short)	6
J2:1/2 (with short)	415(In) 409(Out)
J2:2/1	422
J2:2/2	585
J2:3/1	390
J2:3/2	800
J2:4/1	587
J2:4/2	827
J2:5/1	392
J2:6/1	806

Junction: J1: A595/Inkerman Terrace								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Hensingham Bypass (NB) Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:1/2 (Hensingham Bypass (NB))	5.00	0.00	Y	Arm J1:5 Ahead	Inf	100.0 %	2115	2115
J1:2/1 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:5 Left	17.67	100.0 %	1950	1950
J1:2/2 (Inkerman Terrace)	5.00	0.00	Y	Arm J1:4 Right	20.45	100.0 %	1970	1970
J1:3/1 (A595 Loop Rd (SB))	2.95	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1910	1910
J1:3/2 (A595 Loop Rd (SB))	3.25	0.00	Y	Arm J1:6 Right	9.04	100.0 %	1664	1664
J1:4/1	Infinite Saturation Flow						Inf	Inf
J1:4/2	Infinite Saturation Flow						Inf	Inf
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	Infinite Saturation Flow						Inf	Inf

Junction: J2: A595/Ribton Moorside								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Ribton Moorside)	4.10	0.00	Y	Arm J2:6 Left	16.27	100.0 %	1854	1854
J2:1/2 (Ribton Moorside)	4.10	0.00	Y	Arm J2:4 Right	11.93	100.0 %	1799	1799
J2:2/1 (A595 Loop Rd (NB))	3.65	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1980	1980
J2:2/2 (A595 Loop Rd (NB))	3.50	0.00	Y	Arm J2:4 Ahead	Inf	99.7 %	1964	1964
Arm J2:5 Right				6.93	0.3 %			
J2:3/1 (Hensingham Bypass (SB) Lane 1)				Infinite Saturation Flow				
J2:3/2 (Hensingham Bypass (SB))	4.80	0.00	Y	Arm J2:6 Ahead	Inf	100.0 %	2095	2095
J2:4/1	Infinite Saturation Flow						Inf	Inf
J2:4/2	Infinite Saturation Flow						Inf	Inf
J2:5/1	Infinite Saturation Flow						Inf	Inf
J2:6/1	Infinite Saturation Flow						Inf	Inf

Stage Sequence Diagram

Scenario 1: 'AM Peak Hour 2018 Surveyed Year' (FG1: 'AM Peak Hour 2018 Surveyed Year', Plan 1: 'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Network Results													
Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	69.9%	18.9	7.4	26.9	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	69.5%	7.8	3.6	11.9	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	501	Inf	1007	49.8%	0.1	0.5	0.6	4.1	4.5	0.5	5.0
1/2	Hensingham Bypass (NB) Ahead	C	605	2115	1025	59.0%	1.0	0.7	1.8	10.4	10.3	0.7	11.0
2/2+2/1	Inkerman Terrace Right Left	D E	406	1970:1950	584	69.5%	3.6	1.1	4.7	41.8	8.9	1.1	10.1
3/1	A595 Loop Rd (SB) Ahead	A	703	1910	1142	61.6%	2.4	0.8	3.2	16.5	11.9	0.8	12.7
3/2	A595 Loop Rd (SB) Right	A	195	1664	421	46.3%	0.7	0.4	1.7	30.6	3.5	0.4	3.9
J2: A595/Ribton Moorside	-	-	-	-	-	69.9%	11.1	3.8	14.9	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	433	1799:1854	619	69.9%	3.3	1.1	4.5	37.0	9.8	1.1	10.9
2/1	A595 Loop Rd (NB) Ahead	J	311	1980	1061	29.3%	1.1	0.2	1.3	14.8	4.6	0.2	4.8
2/2	A595 Loop Rd (NB) Ahead Right	J	374	1963	540	69.3%	2.8	1.1	3.9	37.2	8.9	1.1	10.0
3/1	Hensingham Bypass (SB) Left	-	239	Inf	715	33.4%	0.0	0.3	0.3	3.8	0.0	0.3	0.3
3/2	Hensingham Bypass (SB) Ahead	H	771	2095	1123	68.6%	4.0	1.1	5.1	23.8	14.7	1.1	15.8
C1		Stream: 1 PRC for Signalled Lanes (%):			29.5	Total Delay for Signalled Lanes (pcuHr):			11.35	Cycle Time (s):		97	
C1		Stream: 2 PRC for Signalled Lanes (%):			28.8	Total Delay for Signalled Lanes (pcuHr):			14.70	Cycle Time (s):		97	
		PRC Over All Lanes (%):			28.8	Total Delay Over All Lanes(pcuHr):			26.88				

Scenario 2: 'PM Peak Hour 2018 Surveyed Year' (FG2: 'PM Peak Hour 2018 Surveyed Year', Plan 1: 'Network Control Plan 1')

Stage Stream: 1

1	Min: 7	2	Min: 4	3	Min: 12
15	41s	7	4s	7	26s

Stage Stream: 2

1	Min: 7	2	Min: 7

The diagram illustrates the traffic flow and storage space requirements for the A965 Inkeraman and Ribton Moor roundabouts. It includes a detailed view of the roundabouts, a scenario analysis for the PM Peak Hour 2018 Surveyed Year, and a summary of storage space requirements.

Roundabout Details:

- Top Roundabout (A965 Inkeraman Terrace):**
 - Arm J1.3: A965 Loop Rd (SB) - 1.0m, 0.0%, 0.0%
 - Arm J1.6: Inkeraman Terrace - 1.0m, 0.0%, 0.0%
 - Arm J1.1: Housington Bypass (SB) - 1.0m, 0.0%, 0.0%
 - Arm J2.4: Housington Bypass (NB) - 1.0m, 0.0%, 0.0%
 - Arm J2.5: A965 Loop Rd (NB) - 1.0m, 0.0%, 0.0%
- Bottom Roundabout (A965 Ribton Moorside):**
 - Arm J2.5 - 0.0m, 0.0%, 0.0%
 - Arm J2.1 - Ribton Moorside - 1.0m, 0.0%, 0.0%

Scenario 'PM Peak Hour 2018 Surveyed Year' - Stage Stream:

The scenario analysis shows the traffic flow for the PM Peak Hour 2018 Surveyed Year. The streams are categorized by stage and stream number, with flow rates and percentages indicated.

Storage Space Requirements:

- Storage space: 154m=26pcus
- Storage space: 154m=26pcus

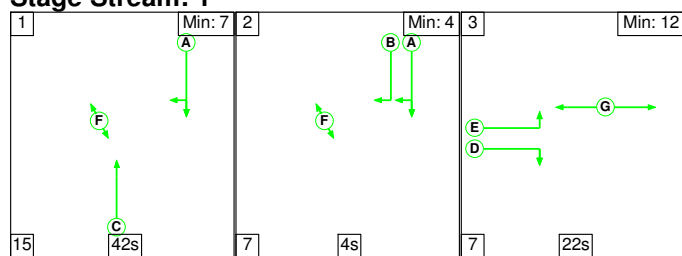
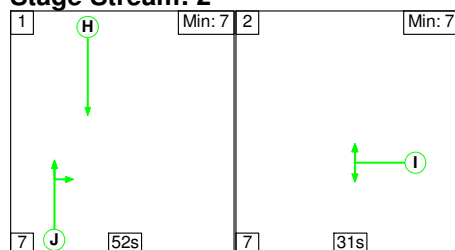
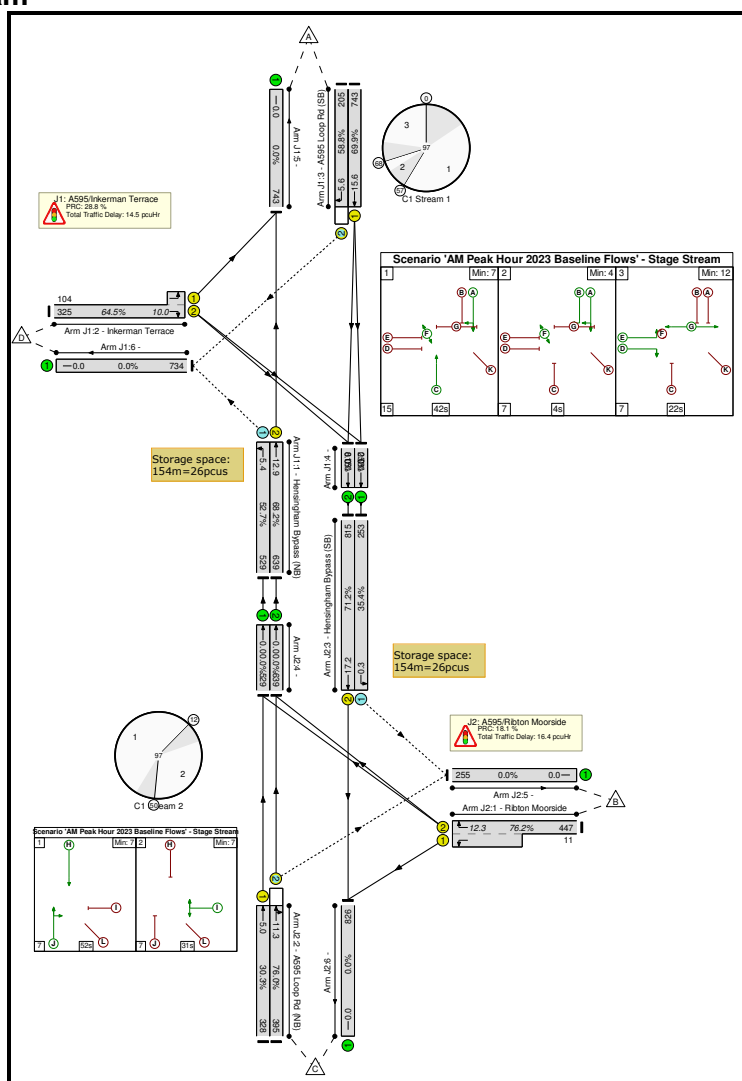
Summary:

- J1: A965 Inkeraman Terrace:** PHC: 3.3%, Total Traffic Delay: 21.4 pcu/h
- J2: A965 Ribton Moorside:** PHC: 16.2%, Total Traffic Delay: 12.7 pcu/h

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	86.6%	21.4	11.7	34.0	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	86.6%	12.7	7.8	21.4	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	537	Inf	1018	52.7%	0.1	0.6	0.7	4.6	5.6	0.6	6.2
1/2	Hensingham Bypass (NB) Ahead	C	761	2115	888	85.7%	3.6	2.9	6.5	30.8	11.2	2.9	14.1
2/2+2/1	Inkerman Terrace Right Left	D E	625	1970:1950	722	86.6%	5.4	3.0	8.5	48.9	15.4	3.0	18.4
3/1	A595 Loop Rd (SB) Ahead	A	602	1910	1012	59.5%	2.7	0.7	3.4	20.5	11.4	0.7	12.1
3/2	A595 Loop Rd (SB) Right	A	142	1664	253	56.2%	0.8	0.6	2.3	57.2	3.6	0.6	4.3
J2: A595/Ribton Moorside	-	-	-	-	-	77.5%	8.7	3.9	12.7	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	380	1799:1854	491	77.5%	3.5	1.7	5.2	49.4	9.6	1.7	11.3
2/1	A595 Loop Rd (NB) Ahead	J	387	1980	1208	32.0%	1.0	0.2	1.3	11.6	5.2	0.2	5.4
2/2	A595 Loop Rd (NB) Ahead Right	J	539	1963	857	62.9%	2.9	0.8	3.8	25.2	11.5	0.8	12.4
3/1	Hensingham Bypass (SB) Left	-	352	Inf	715	49.3%	0.0	0.5	0.5	5.0	0.0	0.5	0.5
3/2	Hensingham Bypass (SB) Ahead	H	736	2095	1278	57.6%	1.3	0.7	1.9	9.5	9.5	0.7	10.2
C1		Stream: 1 PRC for Signalled Lanes (%):			3.9	Total Delay for Signalled Lanes (pcuHr):			20.68	Cycle Time (s): 100			
C1		Stream: 2 PRC for Signalled Lanes (%):			16.2	Total Delay for Signalled Lanes (pcuHr):			12.17	Cycle Time (s): 100			
		PRC Over All Lanes (%):			3.9	Total Delay Over All Lanes(pcuHr):			34.02				

Stage Sequence Diagram

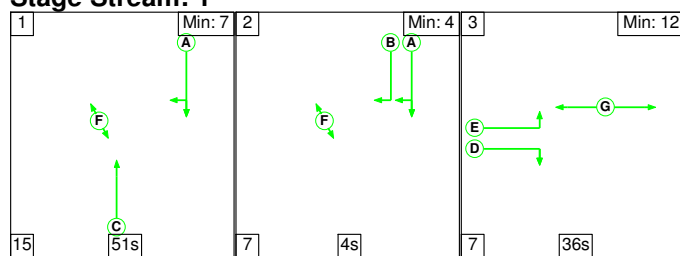
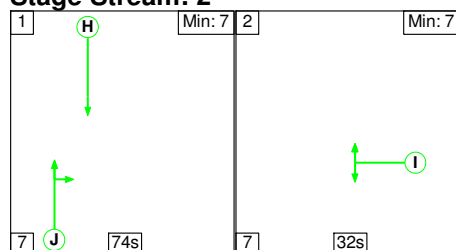
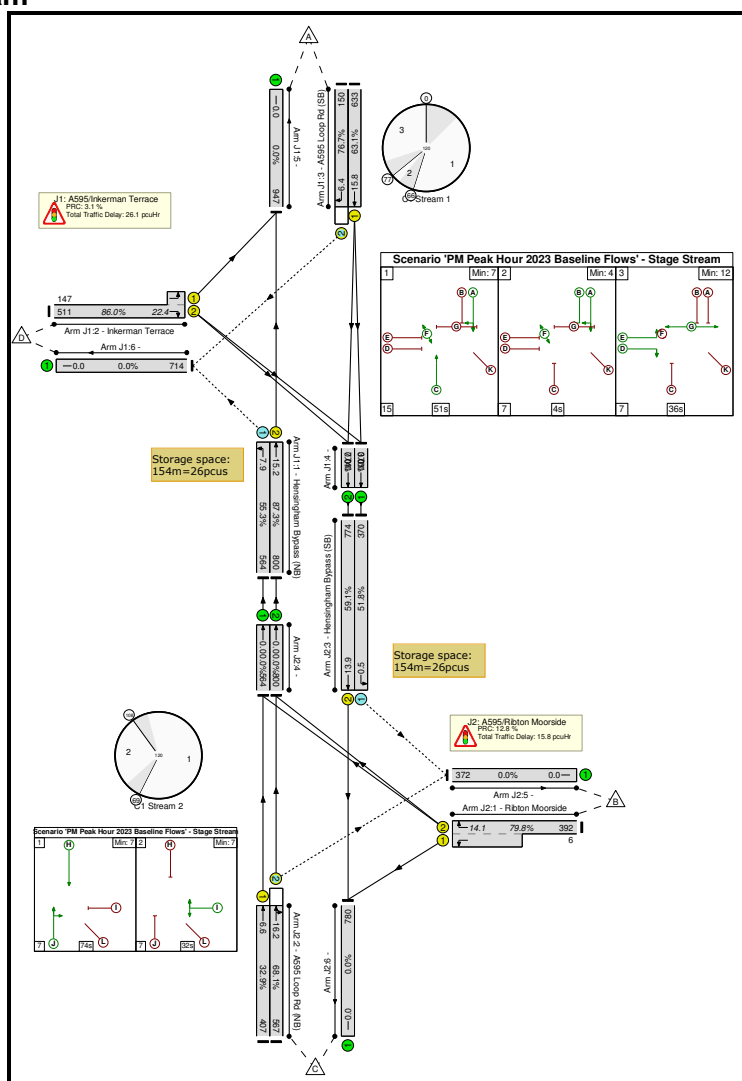
Scenario 3: 'AM Peak Hour 2023 Baseline Flows' (FG3: 'AM Peak Hour 2023 Baseline Flows', Plan 1: 'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Network Results													
Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	76.2%	20.9	9.2	30.9	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	69.9%	9.4	4.4	14.5	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	529	Inf	1005	52.7%	0.1	0.6	0.6	4.4	4.8	0.6	5.4
1/2	Hensingham Bypass (NB) Ahead	C	639	2115	938	68.2%	1.5	1.1	2.6	14.7	11.8	1.1	12.9
2/2+2/1	Inkerman Terrace Right Left	D E	429	1970:1950	665	64.5%	3.4	0.9	4.3	36.3	9.1	0.9	10.0
3/1	A595 Loop Rd (SB) Ahead	A	743	1910	1063	69.9%	3.2	1.2	4.4	21.2	14.4	1.2	15.6
3/2	A595 Loop Rd (SB) Right	A	205	1664	349	58.8%	1.1	0.7	2.6	45.4	4.9	0.7	5.6
J2: A595/Ribton Moorside	-	-	-	-	-	76.2%	11.5	4.8	16.4	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	458	1799:1854	601	76.2%	3.7	1.6	5.2	41.2	10.7	1.6	12.3
2/1	A595 Loop Rd (NB) Ahead	J	328	1980	1082	30.3%	1.1	0.2	1.3	14.4	4.7	0.2	5.0
2/2	A595 Loop Rd (NB) Ahead Right	J	395	1963	519	76.0%	3.0	1.5	4.6	41.8	9.8	1.5	11.3
3/1	Hensingham Bypass (SB) Left	-	253	Inf	715	35.4%	0.0	0.3	0.3	3.9	0.0	0.3	0.3
3/2	Hensingham Bypass (SB) Ahead	H	815	2095	1145	71.2%	3.7	1.2	5.0	21.9	16.0	1.2	17.2
C1		Stream: 1 PRC for Signalled Lanes (%):			28.8	Total Delay for Signalled Lanes (pcuHr):			13.90	Cycle Time (s):		97	
C1		Stream: 2 PRC for Signalled Lanes (%):			18.1	Total Delay for Signalled Lanes (pcuHr):			16.09	Cycle Time (s):		97	
		PRC Over All Lanes (%):			18.1	Total Delay Over All Lanes(pcuHr):			30.91				

Stage Sequence Diagram

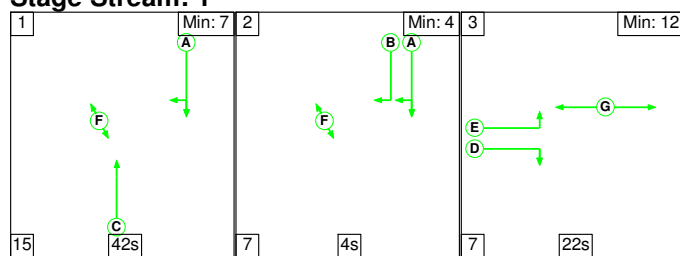
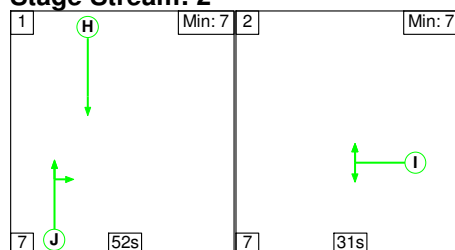
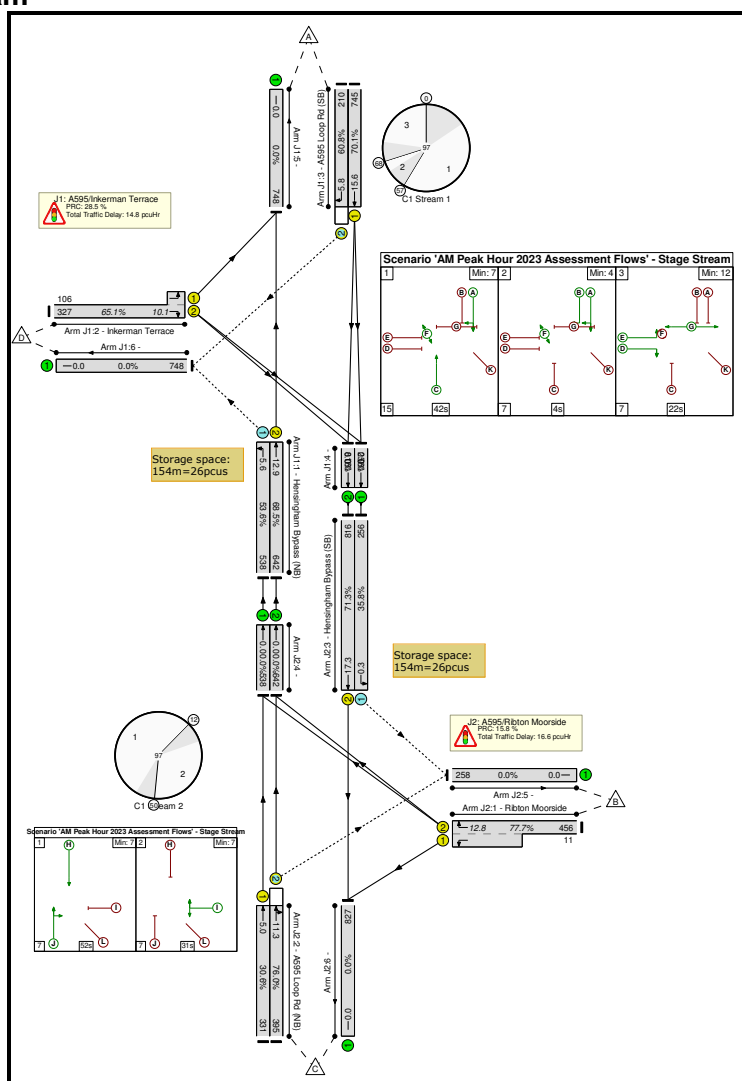
Scenario 4: 'PM Peak Hour 2023 Baseline Flows' (FG4: 'PM Peak Hour 2023 Baseline Flows', Plan 1: 'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	87.3%	27.4	13.6	41.9	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	87.3%	16.0	9.2	26.1	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	564	Inf	1019	55.3%	0.2	0.6	0.8	5.2	7.3	0.6	7.9
1/2	Hensingham Bypass (NB) Ahead	C	800	2115	916	87.3%	4.5	3.3	7.8	35.1	12.0	3.3	15.2
2/2+2/1	Inkerman Terrace Right Left	D E	658	1970:1950	765	86.0%	6.4	2.9	9.3	50.9	19.5	2.9	22.4
3/1	A595 Loop Rd (SB) Ahead	A	633	1910	1003	63.1%	3.6	0.9	4.4	25.1	14.9	0.9	15.8
3/2	A595 Loop Rd (SB) Right	A	150	1664	196	76.7%	1.3	1.5	3.8	90.5	4.8	1.5	6.4
J2: A595/Ribton Moorside	-	-	-	-	-	79.8%	11.4	4.5	15.8	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	398	1799:1854	499	79.8%	4.5	1.9	6.4	57.5	12.1	1.9	14.1
2/1	A595 Loop Rd (NB) Ahead	J	407	1980	1238	32.9%	1.2	0.2	1.4	12.8	6.3	0.2	6.6
2/2	A595 Loop Rd (NB) Ahead Right	J	567	1964	833	68.1%	3.9	1.1	5.0	31.6	15.1	1.1	16.2
3/1	Hensingham Bypass (SB) Left	-	370	Inf	715	51.8%	0.0	0.5	0.5	5.2	0.0	0.5	0.5
3/2	Hensingham Bypass (SB) Ahead	H	774	2095	1309	59.1%	1.8	0.7	2.5	11.7	13.2	0.7	13.9
C1 Stream: 1 PRC for Signalled Lanes (%): 3.1 C1 Stream: 2 PRC for Signalled Lanes (%): 12.8 PRC Over All Lanes (%): 3.1 Total Delay for Signalled Lanes (pcuHr): 25.28 Total Delay for Signalled Lanes (pcuHr): 15.29 Total Delay Over All Lanes(pcuHr): 41.92 Cycle Time (s): 120 Cycle Time (s): 120													

Stage Sequence Diagram**Scenario 5: 'AM Peak Hour 2023 Assessment Flows'** (FG5: 'AM Peak Hour 2023 Assessment Flows', Plan 1:

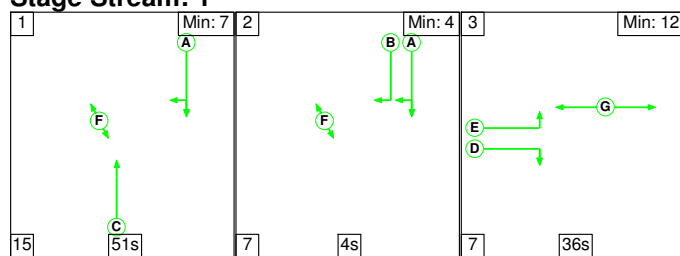
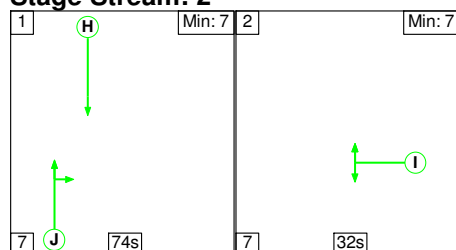
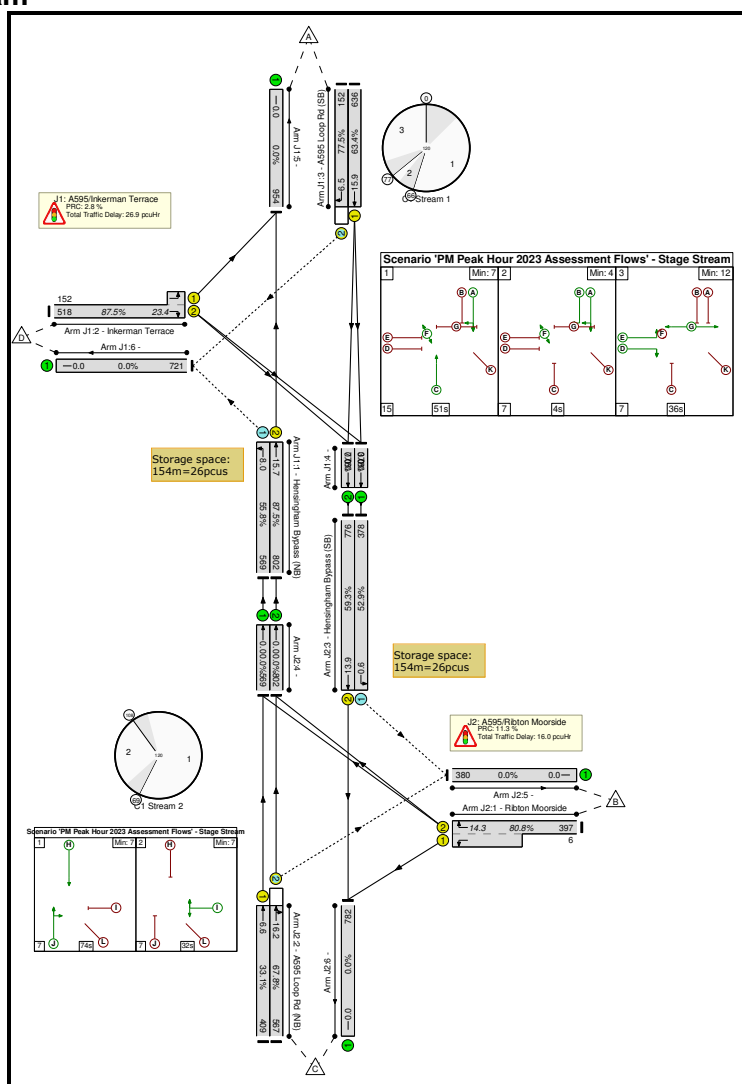
'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	77.7%	21.1	9.5	31.5	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	70.1%	9.5	4.5	14.8	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	538	Inf	1004	53.6%	0.1	0.6	0.7	4.5	5.0	0.6	5.6
1/2	Hensingham Bypass (NB) Ahead	C	642	2115	938	68.5%	1.6	1.1	2.6	14.8	11.8	1.1	12.9
2/2+2/1	Inkerman Terrace Right Left	D E	433	1970:1950	666	65.1%	3.5	0.9	4.4	36.5	9.2	0.9	10.1
3/1	A595 Loop Rd (SB) Ahead	A	745	1910	1063	70.1%	3.2	1.2	4.4	21.2	14.5	1.2	15.6
3/2	A595 Loop Rd (SB) Right	A	210	1664	345	60.8%	1.1	0.8	2.7	46.5	5.1	0.8	5.8
J2: A595/Ribton Moorside	-	-	-	-	-	77.7%	11.6	5.0	16.6	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	467	1799:1854	601	77.7%	3.8	1.7	5.5	42.2	11.1	1.7	12.8
2/1	A595 Loop Rd (NB) Ahead	J	331	1980	1082	30.6%	1.1	0.2	1.3	14.4	4.8	0.2	5.0
2/2	A595 Loop Rd (NB) Ahead Right	J	395	1963	519	76.0%	3.0	1.5	4.6	41.8	9.8	1.5	11.3
3/1	Hensingham Bypass (SB) Left	-	256	Inf	715	35.8%	0.0	0.3	0.3	3.9	0.0	0.3	0.3
3/2	Hensingham Bypass (SB) Ahead	H	816	2095	1145	71.3%	3.7	1.2	5.0	21.9	16.0	1.2	17.3
C1		Stream: 1 PRC for Signalled Lanes (%):			28.5	Total Delay for Signalled Lanes (pcuHr):			14.15	Cycle Time (s):		97	
C1		Stream: 2 PRC for Signalled Lanes (%):			15.8	Total Delay for Signalled Lanes (pcuHr):			16.35	Cycle Time (s):		97	
		PRC Over All Lanes (%):			15.8	Total Delay Over All Lanes(pcuHr):			31.45				

Stage Sequence Diagram**Scenario 6: 'PM Peak Hour 2023 Assessment Flows'** (FG6: 'PM Peak Hour 2023 Assessment Flows', Plan 1:

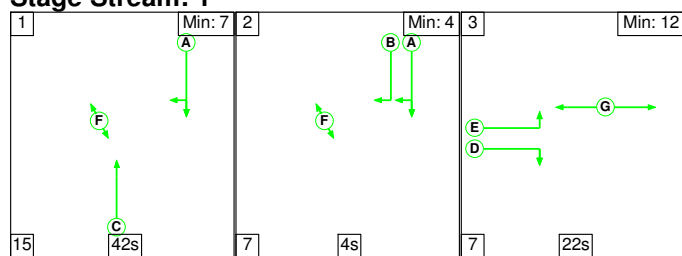
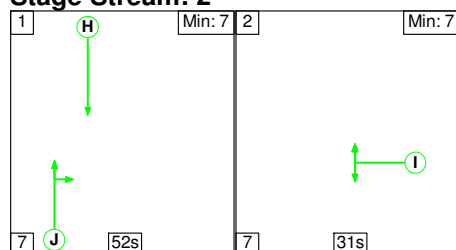
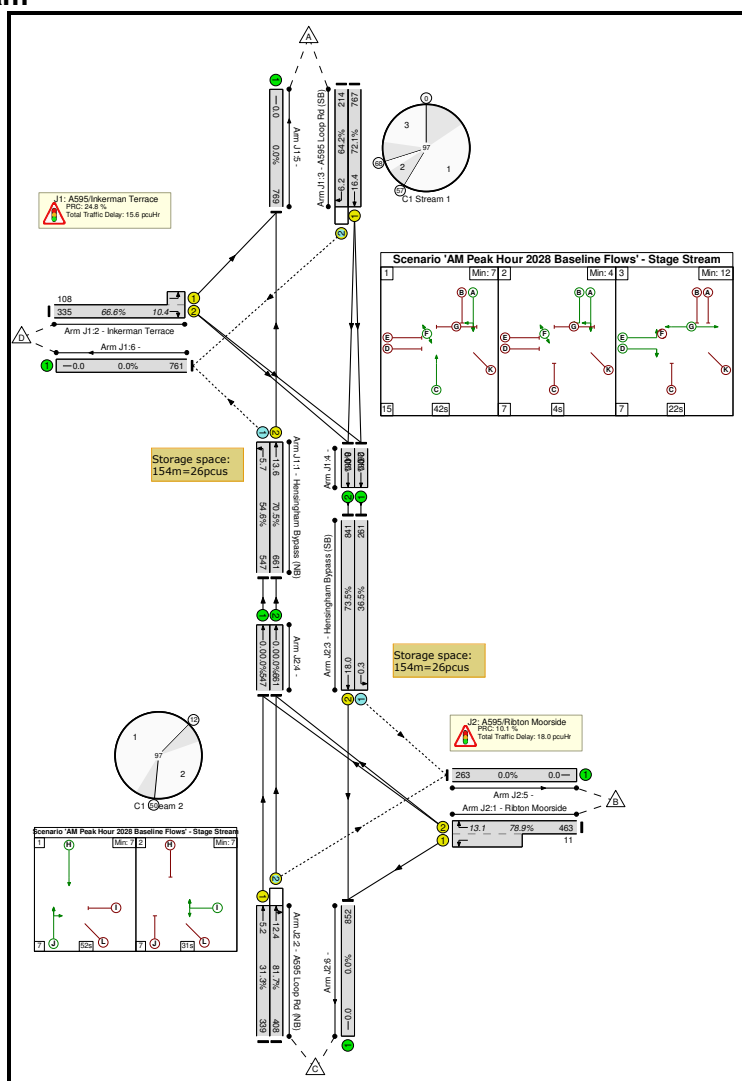
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Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	87.5%	27.7	14.3	42.9	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	87.5%	16.3	9.7	26.9	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	569	Inf	1019	55.8%	0.2	0.6	0.8	5.2	7.4	0.6	8.0
1/2	Hensingham Bypass (NB) Ahead	C	802	2115	916	87.5%	4.6	3.3	7.9	35.3	12.4	3.3	15.7
2/2+2/1	Inkerman Terrace Right Left	D E	670	1970:1950	766	87.5%	6.6	3.3	9.9	53.0	20.1	3.3	23.4
3/1	A595 Loop Rd (SB) Ahead	A	636	1910	1003	63.4%	3.6	0.9	4.4	25.2	15.0	0.9	15.9
3/2	A595 Loop Rd (SB) Right	A	152	1664	196	77.5%	1.4	1.6	3.9	91.5	4.9	1.6	6.5
J2: A595/Ribton Moorside	-	-	-	-	-	80.8%	11.4	4.6	16.0	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	403	1799:1854	499	80.8%	4.5	2.0	6.5	58.5	12.3	2.0	14.3
2/1	A595 Loop Rd (NB) Ahead	J	409	1980	1238	33.1%	1.2	0.2	1.5	12.8	6.4	0.2	6.6
2/2	A595 Loop Rd (NB) Ahead Right	J	567	1964	836	67.8%	3.9	1.0	5.0	31.5	15.1	1.0	16.2
3/1	Hensingham Bypass (SB) Left	-	378	Inf	715	52.9%	0.0	0.6	0.6	5.3	0.0	0.6	0.6
3/2	Hensingham Bypass (SB) Ahead	H	776	2095	1309	59.3%	1.8	0.7	2.5	11.6	13.2	0.7	13.9
C1 Stream: 1 PRC for Signalled Lanes (%): 2.8 C1 Stream: 2 PRC for Signalled Lanes (%): 11.3 PRC Over All Lanes (%): 2.8 Total Delay for Signalled Lanes (pcuHr): 26.04 Total Delay for Signalled Lanes (pcuHr): 15.46 Total Delay Over All Lanes(pcuHr): 42.89 Cycle Time (s): 120 Cycle Time (s): 120													

Stage Sequence Diagram

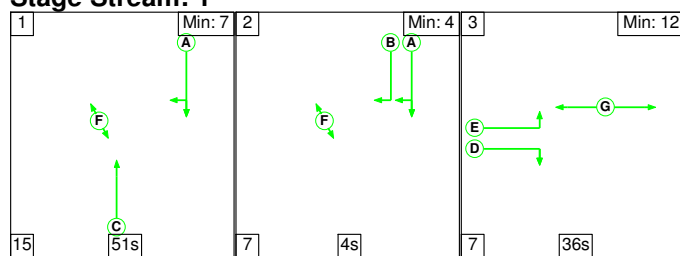
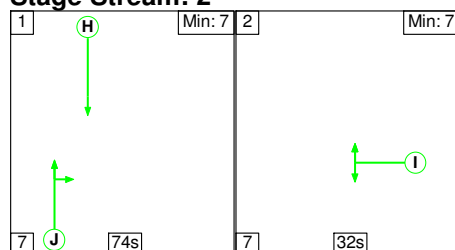
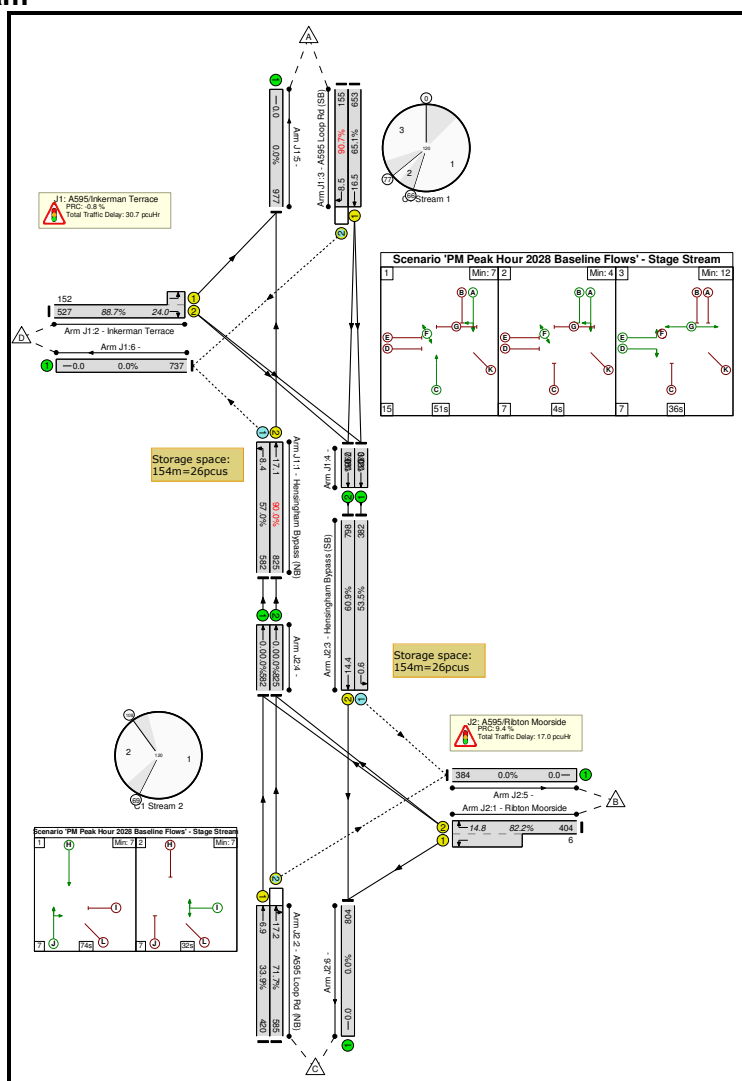
Scenario 7: 'AM Peak Hour 2028 Baseline Flows' (FG7: 'AM Peak Hour 2028 Baseline Flows', Plan 1: 'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	81.7%	22.0	10.8	33.6	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	72.1%	9.8	4.9	15.6	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	547	Inf	1003	54.6%	0.1	0.6	0.7	4.7	5.1	0.6	5.7
1/2	Hensingham Bypass (NB) Ahead	C	661	2115	938	70.5%	1.5	1.2	2.7	14.8	12.4	1.2	13.6
2/2+2/1	Inkerman Terrace Right Left	D E	443	1970:1950	665	66.6%	3.6	1.0	4.6	37.0	9.4	1.0	10.4
3/1	A595 Loop Rd (SB) Ahead	A	767	1910	1063	72.1%	3.4	1.3	4.7	22.0	15.1	1.3	16.4
3/2	A595 Loop Rd (SB) Right	A	214	1664	334	64.2%	1.2	0.9	2.9	49.5	5.3	0.9	6.2
J2: A595/Ribton Moorside	-	-	-	-	-	81.7%	12.2	5.8	18.0	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	474	1799:1854	601	78.9%	3.8	1.8	5.7	43.0	11.3	1.8	13.1
2/1	A595 Loop Rd (NB) Ahead	J	339	1980	1082	31.3%	1.1	0.2	1.4	14.5	5.0	0.2	5.2
2/2	A595 Loop Rd (NB) Ahead Right	J	408	1963	499	81.7%	3.3	2.1	5.4	47.8	10.3	2.1	12.4
3/1	Hensingham Bypass (SB) Left	-	261	Inf	715	36.5%	0.0	0.3	0.3	4.0	0.0	0.3	0.3
3/2	Hensingham Bypass (SB) Ahead	H	841	2095	1145	73.5%	3.9	1.4	5.3	22.6	16.6	1.4	18.0
C1		Stream: 1	PRC for Signalled Lanes (%):		24.8	Total Delay for Signalled Lanes (pcuHr):			14.89	Cycle Time (s):	97		
C1		Stream: 2	PRC for Signalled Lanes (%):		10.1	Total Delay for Signalled Lanes (pcuHr):			17.71	Cycle Time (s):	97		
			PRC Over All Lanes (%):		10.1	Total Delay Over All Lanes(pcuHr):			33.60				

Stage Sequence Diagram

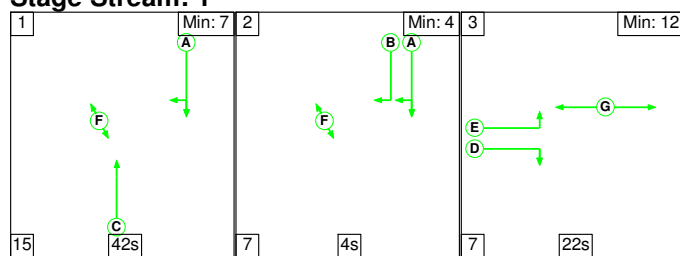
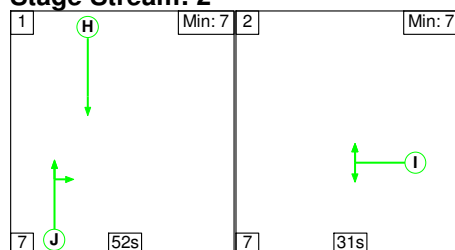
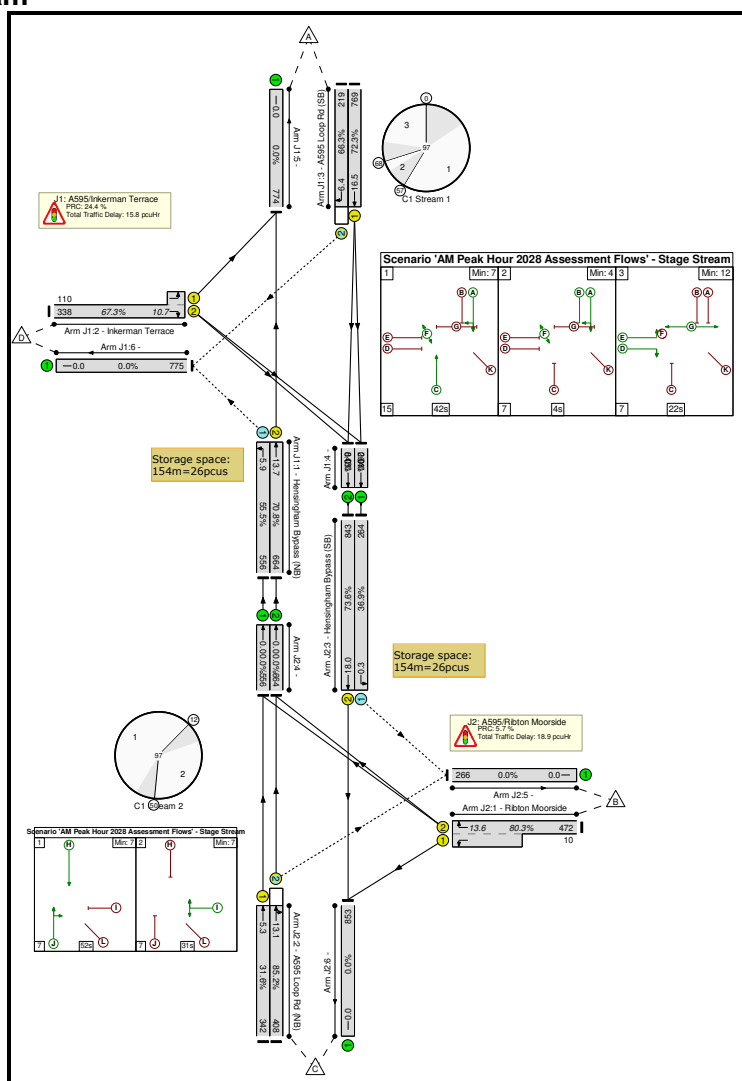
Scenario 8: 'PM Peak Hour 2028 Baseline Flows' (FG8: 'PM Peak Hour 2028 Baseline Flows', Plan 1: 'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	90.7%	29.0	17.8	47.8	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	90.7%	17.1	12.8	30.7	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	582	Inf	1021	57.0%	0.2	0.7	0.9	5.5	7.7	0.7	8.4
1/2	Hensingham Bypass (NB) Ahead	C	825	2115	916	90.0%	4.9	4.1	9.1	39.6	13.0	4.1	17.1
2/2+2/1	Inkerman Terrace Right Left	D E	679	1970:1950	765	88.7%	6.8	3.6	10.4	55.1	20.4	3.6	24.0
3/1	A595 Loop Rd (SB) Ahead	A	653	1910	1003	65.1%	3.7	0.9	4.7	25.7	15.6	0.9	16.5
3/2	A595 Loop Rd (SB) Right	A	155	1664	171	90.7%	1.4	3.4	5.8	133.7	5.1	3.4	8.5
J2: A595/Ribton Moorside	-	-	-	-	-	82.2%	11.9	5.1	17.0	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	410	1799:1854	499	82.2%	4.6	2.2	6.8	60.0	12.6	2.2	14.8
2/1	A595 Loop Rd (NB) Ahead	J	420	1980	1238	33.9%	1.2	0.3	1.5	12.9	6.7	0.3	6.9
2/2	A595 Loop Rd (NB) Ahead Right	J	585	1964	815	71.7%	4.2	1.3	5.5	33.8	15.9	1.3	17.2
3/1	Hensingham Bypass (SB) Left	-	382	Inf	715	53.5%	0.0	0.6	0.6	5.4	0.0	0.6	0.6
3/2	Hensingham Bypass (SB) Ahead	H	798	2095	1309	60.9%	1.8	0.8	2.6	11.8	13.7	0.8	14.4
C1		Stream: 1 PRC for Signalled Lanes (%):			-0.8	Total Delay for Signalled Lanes (pcuHr):			29.86	Cycle Time (s): 120			
C1		Stream: 2 PRC for Signalled Lanes (%):			9.4	Total Delay for Signalled Lanes (pcuHr):			16.44	Cycle Time (s): 120			
		PRC Over All Lanes (%):			-0.8	Total Delay Over All Lanes(pcuHr):			47.76				

Stage Sequence Diagram**Scenario 9: 'AM Peak Hour 2028 Assessment Flows'** (FG9: 'AM Peak Hour 2028 Assessment Flows', Plan 1:

'Network Control Plan 1')

Stage Stream: 1**Stage Stream: 2****Network Layout Diagram**

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	85.2%	22.2	11.7	34.8	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	72.3%	9.9	5.1	15.8	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	556	Inf	1002	55.5%	0.1	0.6	0.7	4.8	5.3	0.6	5.9
1/2	Hensingham Bypass (NB) Ahead	C	664	2115	938	70.8%	1.5	1.2	2.7	14.4	12.4	1.2	13.7
2/2+2/1	Inkerman Terrace Right Left	D E	448	1970:1950	666	67.3%	3.6	1.0	4.6	37.3	9.7	1.0	10.7
3/1	A595 Loop Rd (SB) Ahead	A	769	1910	1063	72.3%	3.4	1.3	4.7	22.0	15.2	1.3	16.5
3/2	A595 Loop Rd (SB) Right	A	219	1664	330	66.3%	1.3	1.0	3.1	51.0	5.4	1.0	6.4
J2: A595/Ribton Moorside	-	-	-	-	-	85.2%	12.4	6.6	18.9	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	482	1799:1854	600	80.3%	3.9	2.0	5.9	44.2	11.6	2.0	13.6
2/1	A595 Loop Rd (NB) Ahead	J	342	1980	1082	31.6%	1.1	0.2	1.4	14.5	5.0	0.2	5.3
2/2	A595 Loop Rd (NB) Ahead Right	J	408	1963	479	85.2%	3.4	2.7	6.0	53.3	10.4	2.7	13.1
3/1	Hensingham Bypass (SB) Left	-	264	Inf	715	36.9%	0.0	0.3	0.3	4.0	0.0	0.3	0.3
3/2	Hensingham Bypass (SB) Ahead	H	843	2095	1145	73.6%	3.9	1.4	5.3	22.6	16.6	1.4	18.0
C1		Stream: 1 PRC for Signalled Lanes (%):			24.4	Total Delay for Signalled Lanes (pcuHr):			15.10	Cycle Time (s):	97		
C1		Stream: 2 PRC for Signalled Lanes (%):			5.7	Total Delay for Signalled Lanes (pcuHr):			18.63	Cycle Time (s):	97		
		PRC Over All Lanes (%):			5.7	Total Delay Over All Lanes(pcuHr):			34.76				

Scenario 10: 'PM Peak Hour 2028 Assessment Flows' (FG10: 'PM Peak Hour 2028 Assessment Flows', Plan 1: 'Network Control Plan 1')

Stage Stream:

1	2	3	Min: 12
Min: 7	Min: 4		
15	7	7	
51s	4s	36s	

Stage 1: Beam 1		Stage 2: Beam 2	
1	Min: 7	2	Min: 7
7	74s	7	32s

Item	Lane Description	Full Phase	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)	Uniform Delay (pcuHr)	Rand + Oversat 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	-	-	-	-	-	91.8%	29.4	18.9	49.2	-	-	-	-
J1: A595/Inkerman Terrace	-	-	-	-	-	91.8%	17.4	13.7	32.0	-	-	-	-
1/1	Hensingham Bypass (NB) Left	-	587	Inf	1021	57.5%	0.2	0.7	0.9	5.5	7.7	0.7	8.4
1/2	Hensingham Bypass (NB) Ahead	C	827	2115	916	90.2%	4.9	4.2	9.1	39.8	13.0	4.2	17.3
2/2+2/1	Inkerman Terrace Right Left	D E	691	1970:1950	766	90.3%	7.0	4.2	11.2	58.1	20.9	4.2	25.1
3/1	A595 Loop Rd (SB) Ahead	A	656	1910	1003	65.4%	3.8	0.9	4.7	25.8	15.7	0.9	16.6
3/2	A595 Loop Rd (SB) Right	A	157	1664	171	91.8%	1.5	3.7	6.1	139.1	5.1	3.7	8.8
J2: A595/Ribton Moorside	-	-	-	-	-	83.3%	12.0	5.2	17.2	-	-	-	-
1/2+1/1	Ribton Moorside Right Left	I	415	1799:1854	498	83.3%	4.7	2.4	7.1	61.2	12.8	2.4	15.1
2/1	A595 Loop Rd (NB) Ahead	J	422	1980	1238	34.1%	1.3	0.3	1.5	12.9	6.7	0.3	6.9
2/2	A595 Loop Rd (NB) Ahead Right	J	585	1964	819	71.4%	4.2	1.2	5.5	33.7	15.9	1.2	17.2
3/1	Hensingham Bypass (SB) Left	-	390	Inf	715	54.6%	0.0	0.6	0.6	5.5	0.0	0.6	0.6
3/2	Hensingham Bypass (SB) Ahead	H	800	2095	1309	61.1%	1.8	0.8	2.6	11.7	13.6	0.8	14.4
C1		Stream: 1 PRC for Signalled Lanes (%):			-2.1	Total Delay for Signalled Lanes (pcuHr):			31.07	Cycle Time (s): 120			
C1		Stream: 2 PRC for Signalled Lanes (%):			8.1	Total Delay for Signalled Lanes (pcuHr):			16.64	Cycle Time (s): 120			
		PRC Over All Lanes (%):			-2.1	Total Delay Over All Lanes(pcuHr):			49.21				



Appendix M – JUNCTIONS 9 Output (J8)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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: J8.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J8 A595_Highlands Pri

Report generation date: 22/10/2018 11:09:30

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-C	0.3	9.87	0.21	1.74	0.1	8.70	0.11	1.68
Stream B-A	0.5	23.09	0.33		0.2	24.41	0.20	
Stream C-AB	0.2	4.22	0.10		1.8	5.63	0.40	
	Existing Layout - 2023 Baseline Flows							
Stream B-C	0.3	10.54	0.23	1.95	0.1	9.09	0.12	1.94
Stream B-A	0.6	26.65	0.38		0.3	28.20	0.23	
Stream C-AB	0.2	4.16	0.11		2.3	6.06	0.45	
	Existing Layout - 2023 with Dev. Flows							
Stream B-C	0.3	10.55	0.23	1.95	0.1	9.10	0.12	1.94
Stream B-A	0.6	26.70	0.38		0.3	28.29	0.23	
Stream C-AB	0.2	4.16	0.11		2.3	6.06	0.46	
	Existing Layout - 2028 Baseline Flows							
Stream B-C	0.3	11.05	0.24	2.10	0.1	9.39	0.12	2.17
Stream B-A	0.7	29.51	0.41		0.3	31.51	0.26	
Stream C-AB	0.3	4.13	0.12		2.7	6.49	0.50	
	Existing Layout - 2028 with Dev. Flows							
Stream B-C	0.3	11.07	0.24	2.10	0.1	9.39	0.12	2.17
Stream B-A	0.7	29.61	0.41		0.3	31.55	0.26	
Stream C-AB	0.3	4.13	0.12		2.8	6.49	0.50	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	A595/Highlands Priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	A595/Highlands Priority junction	T-Junction	Two-way		1.74	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A595 Loop Rd North		Major
B	Highlands		Minor
C	A595 Loop Rd South		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 - A595 Loop Rd South	7.50			100.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	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 - Highlands	One lane plus flare	10.00	7.60	5.09	4.05	3.84	✓	2.00	42	29

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	534	0.091	0.230	0.145	0.328
1	B-C	706	0.101	0.256	-	-
1	C-B	632	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)	Run automatically
D1	2018 Surveyed Flows	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 - A595 Loop Rd North		ONE HOUR	✓	694	100.000
B - Highlands		ONE HOUR	✓	158	100.000
C - A595 Loop Rd South		ONE HOUR	✓	766	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	14	680
	B - Highlands	71	0	87
	C - A595 Loop Rd South	744	22	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	8	8
	B - Highlands	0	0	1
	C - A595 Loop Rd South	3	0	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	0.21	9.87	0.3	A	80	120
B-A	0.33	23.09	0.5	C	65	98
C-AB	0.10	4.22	0.2	A	70	105
C-A					633	949
A-B					13	19
A-C					624	936

Main Results for each time segment

07:45 - 08:00

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	65	16	551	0.119	65	0.0	0.1	7.478	A
B-A	53	13	329	0.162	53	0.0	0.2	12.992	B
C-AB	43	11	913	0.047	43	0.0	0.1	4.210	A
C-A	534	133			534				
A-B	11	3			11				
A-C	512	128			512				

08:00 - 08:15

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	78	20	517	0.151	78	0.1	0.2	8.282	A
B-A	64	16	289	0.221	63	0.2	0.3	15.896	C
C-AB	63	16	976	0.065	63	0.1	0.1	4.019	A
C-A	626	156			626				
A-B	13	3			13				
A-C	611	153			611				

08:15 - 08:30

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	96	24	465	0.206	95	0.2	0.3	9.827	A
B-A	78	20	234	0.334	77	0.3	0.5	22.881	C
C-AB	104	26	1068	0.098	104	0.1	0.2	3.814	A
C-A	739	185			739				
A-B	15	4			15				
A-C	749	187			749				

08:30 - 08:45

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	96	24	464	0.206	96	0.3	0.3	9.869	A
B-A	78	20	234	0.334	78	0.5	0.5	23.093	C
C-AB	105	26	1069	0.098	105	0.2	0.2	3.824	A
C-A	739	185			739				
A-B	15	4			15				
A-C	749	187			749				

08:45 - 09:00

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	78	20	516	0.152	79	0.3	0.2	8.324	A
B-A	64	16	289	0.220	65	0.5	0.3	16.069	C
C-AB	63	16	977	0.065	64	0.2	0.1	4.034	A
C-A	625	156			625				
A-B	13	3			13				
A-C	611	153			611				

09:00 - 09:15

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	65	16	550	0.119	66	0.2	0.1	7.515	A
B-A	53	13	329	0.162	54	0.3	0.2	13.087	B
C-AB	43	11	913	0.047	43	0.1	0.1	4.222	A
C-A	534	133			534				
A-B	11	3			11				
A-C	512	128			512				

Existing Layout - 2018 Surveyed Flows , 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	A595/Highlands Priority junction	T-Junction	Two-way		1.68	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	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	811	100.000
B - Highlands		ONE HOUR	✓	79	100.000
C - A595 Loop Rd South		ONE HOUR	✓	880	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	92	719
	B - Highlands	33	0	46
	C - A595 Loop Rd South	802	78	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Highlands	0	0	2
	C - A595 Loop Rd South	3	0	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	0.11	8.70	0.1	A	42	63
B-A	0.20	24.41	0.2	C	30	45
C-AB	0.40	5.63	1.8	A	288	432
C-A					520	780
A-B					84	127
A-C					660	990

Main Results for each time segment

16:00 - 16:15

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	35	9	556	0.062	34	0.0	0.1	7.042	A
B-A	25	6	293	0.085	24	0.0	0.1	13.384	B
C-AB	167	42	931	0.180	165	0.0	0.5	4.794	A
C-A	495	124			495				
A-B	69	17			69				
A-C	541	135			541				

16:15 - 16:30

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	41	10	522	0.079	41	0.1	0.1	7.633	A
B-A	30	7	247	0.120	29	0.1	0.1	16.513	C
C-AB	254	63	1001	0.253	252	0.5	0.8	4.924	A
C-A	538	134			538				
A-B	83	21			83				
A-C	646	162			646				

16:30 - 16:45

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	51	13	474	0.107	51	0.1	0.1	8.675	A
B-A	36	9	184	0.197	36	0.1	0.2	24.212	C
C-AB	439	110	1103	0.398	435	0.8	1.8	5.555	A
C-A	530	133			530				
A-B	101	25			101				
A-C	792	198			792				

16:45 - 17:00

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	51	13	473	0.107	51	0.1	0.1	8.696	A
B-A	36	9	184	0.198	36	0.2	0.2	24.412	C
C-AB	442	110	1105	0.400	442	1.8	1.8	5.631	A
C-A	527	132			527				
A-B	101	25			101				
A-C	792	198			792				

17:00 - 17:15

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	41	10	521	0.079	41	0.1	0.1	7.657	A
B-A	30	7	247	0.120	30	0.2	0.1	16.639	C
C-AB	256	64	1004	0.255	260	1.8	0.9	5.005	A
C-A	535	134			535				
A-B	83	21			83				
A-C	646	162			646				

17:15 - 17:30

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	35	9	555	0.062	35	0.1	0.1	7.062	A
B-A	25	6	293	0.085	25	0.1	0.1	13.456	B
C-AB	169	42	933	0.181	171	0.9	0.5	4.848	A
C-A	493	123			493				
A-B	69	17			69				
A-C	541	135			541				

Existing Layout - 2023 Baseline Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		1.95	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	2023 Baseline Flows	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 - A595 Loop Rd North		ONE HOUR	✓	732	100.000
B - Highlands		ONE HOUR	✓	166	100.000
C - A595 Loop Rd South		ONE HOUR	✓	808	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	14	718
	B - Highlands	75	0	91
	C - A595 Loop Rd South	785	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	8	8
	B - Highlands	0	0	1
	C - A595 Loop Rd South	3	0	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	0.23	10.54	0.3	B	84	125
B-A	0.38	26.65	0.6	D	69	103
C-AB	0.11	4.16	0.2	A	80	119
C-A					662	993
A-B					13	19
A-C					659	988

Main Results for each time segment

07:45 - 08:00

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	69	17	541	0.127	68	0.0	0.1	7.679	A
B-A	56	14	318	0.178	56	0.0	0.2	13.674	B
C-AB	47	12	931	0.051	47	0.0	0.1	4.150	A
C-A	561	140			561				
A-B	11	3			11				
A-C	541	135			541				

08:00 - 08:15

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	82	20	504	0.162	82	0.1	0.2	8.596	A
B-A	67	17	276	0.244	67	0.2	0.3	17.192	C
C-AB	71	18	998	0.071	71	0.1	0.1	3.960	A
C-A	656	164			656				
A-B	13	3			13				
A-C	645	161			645				

08:15 - 08:30

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	100	25	446	0.224	100	0.2	0.3	10.480	B
B-A	83	21	217	0.380	81	0.3	0.6	26.283	D
C-AB	120	30	1097	0.109	120	0.1	0.2	3.766	A
C-A	770	192			770				
A-B	15	4			15				
A-C	791	198			791				

08:30 - 08:45

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	100	25	445	0.225	100	0.3	0.3	10.543	B
B-A	83	21	217	0.380	83	0.6	0.6	26.650	D
C-AB	120	30	1097	0.110	120	0.2	0.2	3.773	A
C-A	769	192			769				
A-B	15	4			15				
A-C	791	198			791				

08:45 - 09:00

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	82	20	503	0.163	82	0.3	0.2	8.650	A
B-A	67	17	276	0.244	68	0.6	0.3	17.412	C
C-AB	71	18	999	0.071	72	0.2	0.1	3.975	A
C-A	655	164			655				
A-B	13	3			13				
A-C	645	161			645				

09:00 - 09:15

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	69	17	540	0.127	69	0.2	0.1	7.724	A
B-A	56	14	318	0.177	57	0.3	0.2	13.796	B
C-AB	48	12	931	0.051	48	0.1	0.1	4.161	A
C-A	561	140			561				
A-B	11	3			11				
A-C	541	135			541				

Existing Layout - 2023 Baseline Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		1.94	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	853	100.000
B - Highlands		ONE HOUR	✓	83	100.000
C - A595 Loop Rd South		ONE HOUR	✓	925	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	97	756
	B - Highlands	35	0	48
	C - A595 Loop Rd South	843	82	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Highlands	0	0	2
	C - A595 Loop Rd South	3	0	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	0.12	9.09	0.1	A	44	66
B-A	0.23	28.20	0.3	D	32	48
C-AB	0.45	6.06	2.3	A	330	495
C-A					518	778
A-B					89	134
A-C					694	1041

Main Results for each time segment

16:00 - 16:15

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	36	9	546	0.066	36	0.0	0.1	7.194	A
B-A	26	7	282	0.094	26	0.0	0.1	14.087	B
C-AB	187	47	949	0.197	184	0.0	0.6	4.806	A
C-A	510	127			510				
A-B	73	18			73				
A-C	569	142			569				

16:15 - 16:30

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	43	11	511	0.085	43	0.1	0.1	7.853	A
B-A	31	8	233	0.135	31	0.1	0.2	17.801	C
C-AB	288	72	1023	0.281	286	0.6	1.0	5.005	A
C-A	544	136			544				
A-B	87	22			87				
A-C	680	170			680				

16:30 - 16:45

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	53	13	458	0.115	53	0.1	0.1	9.067	A
B-A	39	10	167	0.231	38	0.2	0.3	27.844	D
C-AB	511	128	1132	0.452	506	1.0	2.2	5.942	A
C-A	507	127			507				
A-B	107	27			107				
A-C	832	208			832				

16:45 - 17:00

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	53	13	457	0.116	53	0.1	0.1	9.094	A
B-A	39	10	166	0.232	39	0.3	0.3	28.200	D
C-AB	516	129	1136	0.454	516	2.2	2.3	6.056	A
C-A	502	126			502				
A-B	107	27			107				
A-C	832	208			832				

17:00 - 17:15

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	43	11	509	0.085	43	0.1	0.1	7.882	A
B-A	31	8	233	0.135	32	0.3	0.2	17.996	C
C-AB	291	73	1028	0.283	296	2.3	1.1	5.112	A
C-A	540	135			540				
A-B	87	22			87				
A-C	680	170			680				

17:15 - 17:30

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	36	9	545	0.066	36	0.1	0.1	7.217	A
B-A	26	7	281	0.094	27	0.2	0.1	14.155	B
C-AB	189	47	951	0.199	191	1.1	0.6	4.867	A
C-A	507	127			507				
A-B	73	18			73				
A-C	569	142			569				

Existing Layout - 2023 with Dev. Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		1.95	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	2023 with Dev. Flows	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 - A595 Loop Rd North		ONE HOUR	✓	733	100.000
B - Highlands		ONE HOUR	✓	166	100.000
C - A595 Loop Rd South		ONE HOUR	✓	808	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	14	719
	B - Highlands	75	0	91
	C - A595 Loop Rd South	785	23	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	8	8
	B - Highlands	0	0	1
	C - A595 Loop Rd South	3	0	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	0.23	10.55	0.3	B	84	125
B-A	0.38	26.70	0.6	D	69	103
C-AB	0.11	4.16	0.2	A	80	119
C-A					662	993
A-B					13	19
A-C					660	990

Main Results for each time segment

07:45 - 08:00

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	69	17	541	0.127	68	0.0	0.1	7.682	A
B-A	56	14	318	0.178	56	0.0	0.2	13.683	B
C-AB	47	12	931	0.051	47	0.0	0.1	4.151	A
C-A	561	140			561				
A-B	11	3			11				
A-C	541	135			541				

08:00 - 08:15

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	82	20	504	0.162	82	0.1	0.2	8.601	A
B-A	67	17	276	0.244	67	0.2	0.3	17.209	C
C-AB	71	18	998	0.071	71	0.1	0.1	3.959	A
C-A	656	164			656				
A-B	13	3			13				
A-C	646	162			646				

08:15 - 08:30

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	100	25	446	0.225	100	0.2	0.3	10.490	B
B-A	83	21	217	0.380	81	0.3	0.6	26.330	D
C-AB	120	30	1097	0.109	120	0.1	0.2	3.769	A
C-A	770	192			770				
A-B	15	4			15				
A-C	792	198			792				

08:30 - 08:45

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	100	25	445	0.225	100	0.3	0.3	10.553	B
B-A	83	21	217	0.380	83	0.6	0.6	26.701	D
C-AB	120	30	1097	0.110	120	0.2	0.2	3.774	A
C-A	769	192			769				
A-B	15	4			15				
A-C	792	198			792				

08:45 - 09:00

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	82	20	503	0.163	82	0.3	0.2	8.655	A
B-A	67	17	276	0.244	68	0.6	0.3	17.430	C
C-AB	71	18	999	0.071	72	0.2	0.1	3.974	A
C-A	655	164			655				
A-B	13	3			13				
A-C	646	162			646				

09:00 - 09:15

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	69	17	539	0.127	69	0.2	0.1	7.726	A
B-A	56	14	318	0.177	57	0.3	0.2	13.805	B
C-AB	48	12	931	0.051	48	0.1	0.1	4.163	A
C-A	561	140			561				
A-B	11	3			11				
A-C	541	135			541				

Existing Layout - 2023 with Dev. Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		1.94	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	854	100.000
B - Highlands		ONE HOUR	✓	83	100.000
C - A595 Loop Rd South		ONE HOUR	✓	926	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	97	757
	B - Highlands	35	0	48
	C - A595 Loop Rd South	844	82	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Highlands	0	0	2
	C - A595 Loop Rd South	3	0	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	0.12	9.10	0.1	A	44	66
B-A	0.23	28.29	0.3	D	32	48
C-AB	0.46	6.06	2.3	A	331	497
C-A					519	778
A-B					89	134
A-C					695	1042

Main Results for each time segment

16:00 - 16:15

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	36	9	546	0.066	36	0.0	0.1	7.197	A
B-A	26	7	281	0.094	26	0.0	0.1	14.058	B
C-AB	187	47	949	0.197	184	0.0	0.6	4.805	A
C-A	510	128			510				
A-B	73	18			73				
A-C	570	142			570				

16:15 - 16:30

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	43	11	510	0.085	43	0.1	0.1	7.857	A
B-A	31	8	233	0.135	31	0.1	0.2	17.831	C
C-AB	288	72	1024	0.282	287	0.6	1.0	5.007	A
C-A	544	136			544				
A-B	87	22			87				
A-C	681	170			681				

16:30 - 16:45

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	53	13	457	0.116	53	0.1	0.1	9.075	A
B-A	39	10	166	0.232	38	0.2	0.3	27.931	D
C-AB	513	128	1133	0.452	508	1.0	2.2	5.945	A
C-A	507	127			507				
A-B	107	27			107				
A-C	833	208			833				

16:45 - 17:00

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	53	13	456	0.116	53	0.1	0.1	9.102	A
B-A	39	10	166	0.233	39	0.3	0.3	28.292	D
C-AB	517	129	1137	0.455	517	2.2	2.3	6.065	A
C-A	502	126			502				
A-B	107	27			107				
A-C	833	208			833				

17:00 - 17:15

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	43	11	509	0.085	43	0.1	0.1	7.886	A
B-A	31	8	232	0.135	32	0.3	0.2	18.027	C
C-AB	292	73	1028	0.284	297	2.3	1.1	5.110	A
C-A	541	135			541				
A-B	87	22			87				
A-C	681	170			681				

17:15 - 17:30

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	36	9	545	0.066	36	0.1	0.1	7.222	A
B-A	26	7	281	0.094	27	0.2	0.1	14.174	B
C-AB	189	47	951	0.199	191	1.1	0.6	4.869	A
C-A	508	127			508				
A-B	73	18			73				
A-C	570	142			570				

Existing Layout - 2028 Baseline Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		2.10	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	2028 Baseline Flows	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 - A595 Loop Rd North		ONE HOUR	✓	757	100.000
B - Highlands		ONE HOUR	✓	171	100.000
C - A595 Loop Rd South		ONE HOUR	✓	835	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	15	742
	B - Highlands	77	0	94
	C - A595 Loop Rd South	811	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	8	8
	B - Highlands	0	0	1
	C - A595 Loop Rd South	3	0	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	0.24	11.05	0.3	B	86	129
B-A	0.41	29.51	0.7	D	71	106
C-AB	0.12	4.13	0.3	A	88	131
C-A					679	1018
A-B					14	21
A-C					681	1021

Main Results for each time segment

07:45 - 08:00

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	71	18	535	0.132	70	0.0	0.2	7.806	A
B-A	58	14	311	0.187	57	0.0	0.2	14.154	B
C-AB	51	13	942	0.055	51	0.0	0.1	4.118	A
C-A	577	144			577				
A-B	11	3			11				
A-C	559	140			559				

08:00 - 08:15

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	85	21	497	0.170	84	0.2	0.2	8.803	A
B-A	69	17	267	0.259	69	0.2	0.3	18.112	C
C-AB	77	19	1013	0.076	77	0.1	0.1	3.930	A
C-A	673	168			673				
A-B	13	3			13				
A-C	667	167			667				

08:15 - 08:30

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	103	26	434	0.238	103	0.2	0.3	10.967	B
B-A	85	21	206	0.411	83	0.3	0.7	28.985	D
C-AB	133	33	1116	0.119	133	0.1	0.3	3.750	A
C-A	786	197			786				
A-B	17	4			17				
A-C	817	204			817				

08:30 - 08:45

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	103	26	432	0.239	103	0.3	0.3	11.052	B
B-A	85	21	207	0.411	85	0.7	0.7	29.514	D
C-AB	134	33	1116	0.120	134	0.3	0.3	3.758	A
C-A	786	196			786				
A-B	17	4			17				
A-C	817	204			817				

08:45 - 09:00

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	85	21	495	0.171	85	0.3	0.2	8.870	A
B-A	69	17	267	0.259	71	0.7	0.4	18.399	C
C-AB	78	19	1013	0.077	78	0.3	0.1	3.946	A
C-A	673	168			673				
A-B	13	3			13				
A-C	667	167			667				

09:00 - 09:15

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	71	18	534	0.133	71	0.2	0.2	7.855	A
B-A	58	14	311	0.187	58	0.4	0.2	14.292	B
C-AB	52	13	942	0.055	52	0.1	0.1	4.130	A
C-A	577	144			577				
A-B	11	3			11				
A-C	559	140			559				

Existing Layout - 2028 Baseline Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		2.17	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)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	881	100.000
B - Highlands		ONE HOUR	✓	86	100.000
C - A595 Loop Rd South		ONE HOUR	✓	955	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	100	781
	B - Highlands	36	0	50
	C - A595 Loop Rd South	870	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Highlands	0	0	2
	C - A595 Loop Rd South	3	0	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	0.12	9.39	0.1	A	46	69
B-A	0.26	31.51	0.3	D	33	50
C-AB	0.50	6.49	2.7	A	364	545
C-A					513	769
A-B					92	138
A-C					717	1075

Main Results for each time segment

16:00 - 16:15

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	38	9	541	0.070	37	0.0	0.1	7.286	A
B-A	27	7	273	0.099	27	0.0	0.1	14.587	B
C-AB	201	50	960	0.210	199	0.0	0.6	4.824	A
C-A	518	129			518				
A-B	75	19			75				
A-C	588	147			588				

16:15 - 16:30

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	45	11	504	0.089	45	0.1	0.1	7.995	A
B-A	32	8	223	0.145	32	0.1	0.2	18.812	C
C-AB	314	78	1038	0.302	312	0.6	1.1	5.085	A
C-A	545	136			545				
A-B	90	22			90				
A-C	702	176			702				

16:30 - 16:45

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	55	14	448	0.123	55	0.1	0.1	9.348	A
B-A	40	10	155	0.256	39	0.2	0.3	30.968	D
C-AB	568	142	1152	0.493	562	1.1	2.7	6.320	A
C-A	483	121			483				
A-B	110	28			110				
A-C	860	215			860				

16:45 - 17:00

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	55	14	446	0.123	55	0.1	0.1	9.387	A
B-A	40	10	154	0.258	40	0.3	0.3	31.509	D
C-AB	575	144	1156	0.497	574	2.7	2.7	6.487	A
C-A	477	119			477				
A-B	110	28			110				
A-C	860	215			860				

17:00 - 17:15

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	45	11	502	0.089	45	0.1	0.1	8.035	A
B-A	32	8	222	0.146	33	0.3	0.2	19.078	C
C-AB	319	80	1044	0.305	325	2.7	1.2	5.218	A
C-A	540	135			540				
A-B	90	22			90				
A-C	702	176			702				

17:15 - 17:30

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	38	9	540	0.070	38	0.1	0.1	7.314	A
B-A	27	7	273	0.099	27	0.2	0.1	14.698	B
C-AB	204	51	963	0.212	206	1.2	0.7	4.896	A
C-A	515	129			515				
A-B	75	19			75				
A-C	588	147			588				

Existing Layout - 2028 with Dev. Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		2.10	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
D9	2028 with Dev. Flows	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 - A595 Loop Rd North		ONE HOUR	✓	758	100.000
B - Highlands		ONE HOUR	✓	171	100.000
C - A595 Loop Rd South		ONE HOUR	✓	836	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	15	743
	B - Highlands	77	0	94
	C - A595 Loop Rd South	812	24	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	8	8
	B - Highlands	0	0	1
	C - A595 Loop Rd South	3	0	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	0.24	11.07	0.3	B	86	129
B-A	0.41	29.61	0.7	D	71	106
C-AB	0.12	4.13	0.3	A	88	132
C-A					679	1019
A-B					14	21
A-C					682	1023

Main Results for each time segment

07:45 - 08:00

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	71	18	535	0.132	70	0.0	0.2	7.809	A
B-A	58	14	310	0.187	57	0.0	0.2	14.170	B
C-AB	51	13	942	0.055	51	0.0	0.1	4.116	A
C-A	578	144			578				
A-B	11	3			11				
A-C	559	140			559				

08:00 - 08:15

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	85	21	497	0.170	84	0.2	0.2	8.809	A
B-A	69	17	267	0.260	69	0.2	0.3	18.143	C
C-AB	78	19	1013	0.077	77	0.1	0.1	3.927	A
C-A	674	168			674				
A-B	13	3			13				
A-C	668	167			668				

08:15 - 08:30

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	103	26	434	0.239	103	0.2	0.3	10.981	B
B-A	85	21	206	0.412	83	0.3	0.7	29.078	D
C-AB	134	33	1116	0.120	133	0.1	0.3	3.749	A
C-A	787	197			787				
A-B	17	4			17				
A-C	818	205			818				

08:30 - 08:45

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	103	26	432	0.240	103	0.3	0.3	11.067	B
B-A	85	21	206	0.411	85	0.7	0.7	29.615	D
C-AB	134	33	1117	0.120	134	0.3	0.3	3.754	A
C-A	787	197			787				
A-B	17	4			17				
A-C	818	205			818				

08:45 - 09:00

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	85	21	495	0.171	85	0.3	0.2	8.878	A
B-A	69	17	267	0.259	71	0.7	0.4	18.432	C
C-AB	78	19	1014	0.077	78	0.3	0.1	3.944	A
C-A	674	168			674				
A-B	13	3			13				
A-C	668	167			668				

09:00 - 09:15

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	71	18	534	0.133	71	0.2	0.2	7.861	A
B-A	58	14	311	0.187	58	0.4	0.2	14.311	B
C-AB	52	13	943	0.055	52	0.1	0.1	4.128	A
C-A	578	144			578				
A-B	11	3			11				
A-C	559	140			559				

Existing Layout - 2028 with Dev. Flows, 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	A595/Highlands Priority junction	T-Junction	Two-way		2.17	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)	Run automatically
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	881	100.000
B - Highlands		ONE HOUR	✓	86	100.000
C - A595 Loop Rd South		ONE HOUR	✓	956	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	100	781
	B - Highlands	36	0	50
	C - A595 Loop Rd South	871	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Highlands	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Highlands	0	0	2
	C - A595 Loop Rd South	3	0	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	0.12	9.39	0.1	A	46	69
B-A	0.26	31.55	0.3	D	33	50
C-AB	0.50	6.49	2.8	A	364	546
C-A					513	770
A-B					92	138
A-C					717	1075

Main Results for each time segment

16:00 - 16:15

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	38	9	541	0.070	37	0.0	0.1	7.286	A
B-A	27	7	273	0.099	27	0.0	0.1	14.594	B
C-AB	201	50	961	0.210	199	0.0	0.6	4.822	A
C-A	518	130			518				
A-B	75	19			75				
A-C	588	147			588				

16:15 - 16:30

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	45	11	504	0.089	45	0.1	0.1	7.995	A
B-A	32	8	223	0.145	32	0.1	0.2	18.825	C
C-AB	314	79	1039	0.303	312	0.6	1.1	5.086	A
C-A	545	136			545				
A-B	90	22			90				
A-C	702	176			702				

16:30 - 16:45

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	55	14	447	0.123	55	0.1	0.1	9.349	A
B-A	40	10	154	0.257	39	0.2	0.3	31.016	D
C-AB	570	142	1153	0.494	563	1.1	2.7	6.321	A
C-A	483	121			483				
A-B	110	28			110				
A-C	860	215			860				

16:45 - 17:00

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	55	14	446	0.123	55	0.1	0.1	9.389	A
B-A	40	10	154	0.258	40	0.3	0.3	31.553	D
C-AB	576	144	1157	0.498	576	2.7	2.8	6.489	A
C-A	477	119			477				
A-B	110	28			110				
A-C	860	215			860				

17:00 - 17:15

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	45	11	502	0.089	45	0.1	0.1	8.034	A
B-A	32	8	222	0.146	33	0.3	0.2	19.092	C
C-AB	319	80	1045	0.306	325	2.8	1.2	5.217	A
C-A	540	135			540				
A-B	90	22			90				
A-C	702	176			702				

17:15 - 17:30

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	38	9	540	0.070	38	0.1	0.1	7.314	A
B-A	27	7	272	0.099	27	0.2	0.1	14.704	B
C-AB	204	51	964	0.212	206	1.2	0.7	4.894	A
C-A	515	129			515				
A-B	75	19			75				
A-C	588	147			588				



Appendix N – JUNCTIONS 9 Output (J9)

Junctions 9	
ARCADY 9 - Roundabout Module	
Version: 9.5.0.6896 © Copyright TRL Limited, 2018	
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Filename: 01 J9 (2018-10-18) - Existing Layout.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J9 A595_B5295 Egremont Rd_Homewood Rd Rdt

Report generation date: 22/10/2018 11:43:16

-
- »Existing Layout - 2018 Surveyed Flows , AM
 - »Existing Layout - 2018 Surveyed Flows , PM
 - »Existing Layout - 2023 Baseline Flows, AM
 - »Existing Layout - 2023 Baseline Flows, PM
 - »Existing Layout - 2023 with Dev. Flows, AM
 - »Existing Layout - 2023 with Dev. Flows, PM
 - »Existing Layout - 2028 Baseline Flows, AM
 - »Existing Layout - 2028 Baseline Flows, PM
 - »Existing Layout - 2028 with Dev. Flows, AM
 - »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
1 - B5295 Egremont Rd	0.3	5.24	0.25	9.12	0.3	4.92	0.22	16.54
2 - Homewood Rd	1.1	12.61	0.52		3.4	26.60	0.78	
3 - A595 Egremont Rd	2.8	9.28	0.74		6.8	20.21	0.88	
4 - A595	2.0	8.66	0.66		1.7	7.81	0.64	
	Existing Layout - 2023 Baseline Flows							
1 - B5295 Egremont Rd	0.4	5.76	0.30	10.77	0.3	5.25	0.24	24.42
2 - Homewood Rd	1.4	15.11	0.58		5.3	39.68	0.86	
3 - A595 Egremont Rd	3.5	11.19	0.78		11.1	31.77	0.93	
4 - A595	2.4	10.08	0.70		2.1	8.89	0.68	
	Existing Layout - 2023 with Dev. Flows							
1 - B5295 Egremont Rd	0.7	6.68	0.39	11.77	0.4	5.54	0.29	37.09
2 - Homewood Rd	1.7	18.09	0.62		6.3	47.53	0.88	
3 - A595 Egremont Rd	4.0	12.37	0.80		21.4	55.71	0.98	
4 - A595	2.6	10.57	0.71		2.3	9.81	0.70	
	Existing Layout - 2028 Baseline Flows							
1 - B5295 Egremont Rd	0.5	6.05	0.31	12.10	0.4	5.45	0.26	33.15
2 - Homewood Rd	1.6	17.01	0.62		7.4	54.91	0.91	
3 - A595 Egremont Rd	4.1	12.72	0.81		16.3	44.51	0.96	
4 - A595	2.8	11.23	0.73		2.4	9.77	0.70	
	Existing Layout - 2028 with Dev. Flows							
1 - B5295 Egremont Rd	0.7	7.07	0.41	13.37	0.4	5.76	0.30	51.80
2 - Homewood Rd	2.0	20.81	0.66		9.3	67.99	0.93	
3 - A595 Egremont Rd	4.7	14.26	0.83		33.3	79.39	1.02	
4 - A595	3.0	11.84	0.74		2.6	10.77	0.72	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	A595 / B5295 Egremont Road / Homewood Road roundabout
Site number	
Date	16/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	9.12	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	B5295 Egremont Rd	
2	Homewood Rd	
3	A595 Egremont Rd	
4	A595	

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 - B5295 Egremont Rd	3.31	5.55	12.5	42.9	48.0	15.0	
2 - Homewood Rd	3.07	5.23	4.6	10.9	48.0	47.0	
3 - A595 Egremont Rd	3.69	5.79	19.4	17.0	48.0	34.0	
4 - A595	5.02	6.43	3.8	9.8	48.0	47.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B5295 Egremont Rd	0.610	1547
2 - Homewood Rd	0.467	1072
3 - A595 Egremont Rd	0.582	1555
4 - A595	0.552	1527

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	2018 Surveyed Flows	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 - B5295 Egremont Rd		ONE HOUR	✓	217	100.000
2 - Homewood Rd		ONE HOUR	✓	295	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1001	100.000
4 - A595		ONE HOUR	✓	765	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
From	1 - B5295 Egremont Rd	2	6	208	1
	2 - Homewood Rd	6	0	212	77
	3 - A595 Egremont Rd	254	129	15	603
	4 - A595	5	111	649	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
From	1 - B5295 Egremont Rd	0	0	2	0
	2 - Homewood Rd	0	0	4	5
	3 - A595 Egremont Rd	2	2	0	3
	4 - A595	25	3	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 - B5295 Egremont Rd	0.25	5.24	0.3	A	199	299
2 - Homewood Rd	0.52	12.61	1.1	B	271	406
3 - A595 Egremont Rd	0.74	9.28	2.8	A	919	1378
4 - A595	0.66	8.66	2.0	A	702	1053

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 - B5295 Egremont Rd	163	41	677	1134	0.144	163	200	0.0	0.2	3.777	A
2 - Homewood Rd	222	56	655	766	0.290	220	184	0.0	0.4	6.854	A
3 - A595 Egremont Rd	754	188	64	1517	0.497	750	812	0.0	1.0	4.786	A
4 - A595	576	144	304	1360	0.424	573	510	0.0	0.8	4.816	A

08:00 - 08:15

Am	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 - B5295 Egremont Rd	195	49	811	1052	0.185	195	240	0.2	0.2	4.280	A
2 - Homewood Rd	265	66	785	705	0.376	264	221	0.4	0.6	8.491	A
3 - A595 Egremont Rd	900	225	77	1510	0.596	898	972	1.0	1.5	6.016	A
4 - A595	688	172	364	1327	0.518	686	611	0.8	1.1	5.928	A

08:15 - 08:30

Am	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 - B5295 Egremont Rd	239	60	991	942	0.254	238	293	0.2	0.3	5.212	A
2 - Homewood Rd	325	81	960	624	0.521	323	270	0.6	1.1	12.392	B
3 - A595 Egremont Rd	1102	276	94	1500	0.735	1097	1189	1.5	2.7	9.057	A
4 - A595	842	211	445	1282	0.657	839	746	1.1	2.0	8.519	A

08:30 - 08:45

Am	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 - B5295 Egremont Rd	239	60	995	939	0.254	239	294	0.3	0.3	5.236	A
2 - Homewood Rd	325	81	963	622	0.522	325	271	1.1	1.1	12.607	B
3 - A595 Egremont Rd	1102	276	95	1499	0.735	1102	1193	2.7	2.8	9.277	A
4 - A595	842	211	447	1281	0.658	842	750	2.0	2.0	8.664	A

08:45 - 09:00

Am	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 - B5295 Egremont Rd	195	49	817	1048	0.186	196	241	0.3	0.2	4.305	A
2 - Homewood Rd	265	66	790	703	0.377	267	222	1.1	0.6	8.640	A
3 - A595 Egremont Rd	900	225	78	1509	0.596	905	979	2.8	1.5	6.159	A
4 - A595	688	172	367	1325	0.519	691	616	2.0	1.2	6.034	A

09:00 - 09:15

Am	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 - B5295 Egremont Rd	163	41	682	1130	0.145	164	202	0.2	0.2	3.798	A
2 - Homewood Rd	222	56	660	764	0.291	223	186	0.6	0.4	6.948	A
3 - A595 Egremont Rd	754	188	65	1517	0.497	756	818	1.5	1.0	4.866	A
4 - A595	576	144	306	1358	0.424	577	514	1.2	0.8	4.879	A

Existing Layout - 2018 Surveyed Flows , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	16.54	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
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Egremont Rd		ONE HOUR	✓	190	100.000
2 - Homewood Rd		ONE HOUR	✓	441	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1155	100.000
4 - A595		ONE HOUR	✓	741	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	178	2
	2 - Homewood Rd	10	0	275	156
	3 - A595 Egremont Rd	245	136	15	759
	4 - A595	6	53	682	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	1	0
	2 - Homewood Rd	25	0	2	1
	3 - A595 Egremont Rd	2	1	7	2
	4 - A595	20	0	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 - B5295 Egremont Rd	0.22	4.92	0.3	A	174	262
2 - Homewood Rd	0.78	26.60	3.4	D	405	607
3 - A595 Egremont Rd	0.88	20.21	6.8	C	1060	1590
4 - A595	0.64	7.81	1.7	A	680	1020

Main Results for each time segment

16:00 - 16:15

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 - B5295 Egremont Rd	143	36	664	1142	0.125	142	195	0.0	0.1	3.652	A
2 - Homewood Rd	332	83	657	765	0.434	329	149	0.0	0.8	8.366	A
3 - A595 Egremont Rd	870	217	125	1482	0.587	864	861	0.0	1.4	5.887	A
4 - A595	558	139	304	1360	0.410	555	686	0.0	0.7	4.505	A

16:15 - 16:30

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 - B5295 Egremont Rd	171	43	795	1062	0.161	171	234	0.1	0.2	4.096	A
2 - Homewood Rd	396	99	787	704	0.563	394	178	0.8	1.3	11.774	B
3 - A595 Egremont Rd	1038	260	150	1467	0.708	1034	1031	1.4	2.4	8.403	A
4 - A595	666	167	364	1327	0.502	665	821	0.7	1.0	5.486	A

16:30 - 16:45

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 - B5295 Egremont Rd	209	52	971	954	0.219	209	284	0.2	0.3	4.895	A
2 - Homewood Rd	486	121	962	622	0.780	478	217	1.3	3.2	24.183	C
3 - A595 Egremont Rd	1272	318	182	1449	0.878	1256	1258	2.4	6.3	17.754	C
4 - A595	816	204	441	1284	0.635	813	997	1.0	1.7	7.678	A

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 - B5295 Egremont Rd	209	52	975	952	0.220	209	287	0.3	0.3	4.917	A
2 - Homewood Rd	486	121	965	621	0.782	485	219	3.2	3.4	26.602	D
3 - A595 Egremont Rd	1272	318	185	1447	0.879	1270	1266	6.3	6.8	20.211	C
4 - A595	816	204	446	1281	0.637	816	1008	1.7	1.7	7.812	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 - B5295 Egremont Rd	171	43	802	1058	0.162	171	238	0.3	0.2	4.120	A
2 - Homewood Rd	396	99	792	702	0.565	405	181	3.4	1.4	12.671	B
3 - A595 Egremont Rd	1038	260	154	1465	0.709	1055	1042	6.8	2.6	9.308	A
4 - A595	666	167	371	1323	0.504	669	838	1.7	1.0	5.590	A

17:15 - 17:30

Am	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 - B5295 Egremont Rd	143	36	669	1139	0.126	143	197	0.2	0.1	3.671	A
2 - Homewood Rd	332	83	662	763	0.435	334	150	1.4	0.8	8.616	A
3 - A595 Egremont Rd	870	217	127	1480	0.587	874	869	2.6	1.5	6.093	A
4 - A595	558	139	307	1358	0.411	559	694	1.0	0.7	4.561	A

Existing Layout - 2023 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	10.77	B

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	2023 Baseline Flows	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 - B5295 Egremont Rd		ONE HOUR	✓	244	100.000
2 - Homewood Rd		ONE HOUR	✓	310	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1061	100.000
4 - A595		ONE HOUR	✓	807	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	2	6	235	1
	2 - Homewood Rd	6	0	223	81
	3 - A595 Egremont Rd	272	136	16	637
	4 - A595	5	117	685	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	0	2	0
	2 - Homewood Rd	0	0	4	5
	3 - A595 Egremont Rd	2	2	0	3
	4 - A595	25	3	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 - B5295 Egremont Rd	0.30	5.76	0.4	A	224	336
2 - Homewood Rd	0.58	15.11	1.4	C	284	427
3 - A595 Egremont Rd	0.78	11.19	3.5	B	974	1460
4 - A595	0.70	10.08	2.4	B	741	1111

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 - B5295 Egremont Rd	184	46	714	1111	0.165	183	213	0.0	0.2	3.950	A
2 - Homewood Rd	233	58	703	744	0.314	232	194	0.0	0.5	7.297	A
3 - A595 Egremont Rd	799	200	67	1515	0.527	794	867	0.0	1.1	5.089	A
4 - A595	608	152	323	1349	0.450	604	538	0.0	0.9	5.083	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 - B5295 Egremont Rd	219	55	856	1025	0.214	219	256	0.2	0.3	4.554	A
2 - Homewood Rd	279	70	842	679	0.411	278	232	0.5	0.7	9.333	A
3 - A595 Egremont Rd	954	238	81	1508	0.633	951	1039	1.1	1.7	6.609	A
4 - A595	725	181	387	1314	0.552	724	645	0.9	1.3	6.429	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 - B5295 Egremont Rd	269	67	1045	909	0.296	268	312	0.3	0.4	5.719	A
2 - Homewood Rd	341	85	1029	591	0.577	339	284	0.7	1.4	14.704	B
3 - A595 Egremont Rd	1168	292	98	1497	0.780	1161	1270	1.7	3.5	10.770	B
4 - A595	889	222	473	1267	0.702	884	787	1.3	2.4	9.828	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 - B5295 Egremont Rd	269	67	1050	906	0.297	269	314	0.4	0.4	5.757	A
2 - Homewood Rd	341	85	1034	589	0.579	341	285	1.4	1.4	15.107	C
3 - A595 Egremont Rd	1168	292	99	1497	0.780	1168	1276	3.5	3.5	11.189	B
4 - A595	889	222	475	1265	0.702	888	791	2.4	2.4	10.082	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 - B5295 Egremont Rd	219	55	863	1020	0.215	220	258	0.4	0.3	4.590	A
2 - Homewood Rd	279	70	849	676	0.412	281	234	1.4	0.7	9.573	A
3 - A595 Egremont Rd	954	238	82	1507	0.633	961	1048	3.5	1.8	6.845	A
4 - A595	725	181	391	1312	0.553	730	651	2.4	1.3	6.590	A

09:00 - 09:15

Am	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 - B5295 Egremont Rd	184	46	720	1107	0.166	184	215	0.3	0.2	3.975	A
2 - Homewood Rd	233	58	709	741	0.315	234	196	0.7	0.5	7.418	A
3 - A595 Egremont Rd	799	200	68	1515	0.527	801	875	1.8	1.2	5.194	A
4 - A595	608	152	326	1347	0.451	609	543	1.3	0.9	5.167	A

Existing Layout - 2023 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	24.42	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Egremont Rd		ONE HOUR	✓	205	100.000
2 - Homewood Rd		ONE HOUR	✓	463	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1220	100.000
4 - A595		ONE HOUR	✓	779	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	11	192	2
	2 - Homewood Rd	10	0	289	164
	3 - A595 Egremont Rd	264	143	15	798
	4 - A595	6	56	717	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	1	0
	2 - Homewood Rd	25	0	2	1
	3 - A595 Egremont Rd	2	1	7	2
	4 - A595	20	0	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 - B5295 Egremont Rd	0.24	5.25	0.3	A	188	282
2 - Homewood Rd	0.86	39.68	5.3	E	425	637
3 - A595 Egremont Rd	0.93	31.77	11.1	D	1119	1679
4 - A595	0.68	8.89	2.1	A	715	1072

Main Results for each time segment

16:00 - 16:15

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 - B5295 Egremont Rd	154	39	697	1121	0.138	154	209	0.0	0.2	3.772	A
2 - Homewood Rd	349	87	694	748	0.466	345	157	0.0	0.9	9.040	A
3 - A595 Egremont Rd	918	230	131	1478	0.621	912	908	0.0	1.6	6.410	A
4 - A595	586	147	323	1349	0.435	583	720	0.0	0.8	4.731	A

16:15 - 16:30

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 - B5295 Egremont Rd	184	46	835	1037	0.178	184	251	0.2	0.2	4.278	A
2 - Homewood Rd	416	104	831	684	0.609	414	188	0.9	1.5	13.456	B
3 - A595 Egremont Rd	1097	274	157	1463	0.750	1092	1087	1.6	2.9	9.744	A
4 - A595	700	175	387	1314	0.533	699	862	0.8	1.1	5.897	A

16:30 - 16:45

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 - B5295 Egremont Rd	226	56	1018	926	0.244	225	302	0.2	0.3	5.211	A
2 - Homewood Rd	510	127	1015	598	0.853	497	228	1.5	4.7	33.013	D
3 - A595 Egremont Rd	1343	336	189	1444	0.930	1316	1323	2.9	9.6	24.660	C
4 - A595	858	214	466	1270	0.675	854	1039	1.1	2.0	8.665	A

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 - B5295 Egremont Rd	226	56	1024	922	0.245	226	307	0.3	0.3	5.245	A
2 - Homewood Rd	510	127	1019	596	0.856	508	231	4.7	5.3	39.677	E
3 - A595 Egremont Rd	1343	336	193	1442	0.931	1337	1334	9.6	11.1	31.773	D
4 - A595	858	214	474	1266	0.677	858	1057	2.0	2.1	8.893	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 - B5295 Egremont Rd	184	46	845	1031	0.179	185	259	0.3	0.2	4.315	A
2 - Homewood Rd	416	104	837	681	0.611	431	193	5.3	1.7	15.429	C
3 - A595 Egremont Rd	1097	274	164	1459	0.752	1128	1104	11.1	3.2	12.050	B
4 - A595	700	175	400	1307	0.536	704	892	2.1	1.2	6.069	A

17:15 - 17:30

Am	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 - B5295 Egremont Rd	154	39	703	1118	0.138	155	212	0.2	0.2	3.794	A
2 - Homewood Rd	349	87	699	746	0.468	352	159	1.7	0.9	9.394	A
3 - A595 Egremont Rd	918	230	134	1477	0.622	925	917	3.2	1.7	6.716	A
4 - A595	586	147	327	1347	0.435	588	731	1.2	0.8	4.805	A

Existing Layout - 2023 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	11.77	B

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	2023 with Dev. Flows	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 - B5295 Egremont Rd		ONE HOUR	✓	324	100.000
2 - Homewood Rd		ONE HOUR	✓	310	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1090	100.000
4 - A595		ONE HOUR	✓	807	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
From	1 - B5295 Egremont Rd	2	6	315	1
	2 - Homewood Rd	6	0	223	81
	3 - A595 Egremont Rd	301	136	16	637
	4 - A595	5	117	685	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
From	1 - B5295 Egremont Rd	0	0	2	0
	2 - Homewood Rd	0	0	4	5
	3 - A595 Egremont Rd	2	2	0	3
	4 - A595	25	3	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 - B5295 Egremont Rd	0.39	6.68	0.7	A	297	446
2 - Homewood Rd	0.62	18.09	1.7	C	284	427
3 - A595 Egremont Rd	0.80	12.37	4.0	B	1000	1500
4 - A595	0.71	10.57	2.6	B	741	1111

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 - B5295 Egremont Rd	244	61	714	1111	0.220	243	235	0.0	0.3	4.222	A
2 - Homewood Rd	233	58	763	716	0.326	231	194	0.0	0.5	7.714	A
3 - A595 Egremont Rd	821	205	67	1515	0.542	816	927	0.0	1.2	5.242	A
4 - A595	608	152	345	1337	0.454	604	538	0.0	0.9	5.166	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 - B5295 Egremont Rd	291	73	855	1025	0.284	291	282	0.3	0.4	4.997	A
2 - Homewood Rd	279	70	914	645	0.432	278	232	0.5	0.8	10.174	B
3 - A595 Egremont Rd	980	245	81	1508	0.650	977	1111	1.2	1.9	6.923	A
4 - A595	725	181	413	1299	0.558	724	645	0.9	1.3	6.587	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 - B5295 Egremont Rd	357	89	1045	909	0.392	356	343	0.4	0.7	6.616	A
2 - Homewood Rd	341	85	1117	550	0.620	338	283	0.8	1.6	17.391	C
3 - A595 Egremont Rd	1200	300	98	1497	0.801	1192	1357	1.9	3.9	11.782	B
4 - A595	889	222	504	1249	0.711	884	786	1.3	2.5	10.267	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 - B5295 Egremont Rd	357	89	1050	906	0.394	357	346	0.7	0.7	6.681	A
2 - Homewood Rd	341	85	1122	548	0.623	341	285	1.6	1.7	18.086	C
3 - A595 Egremont Rd	1200	300	99	1497	0.802	1200	1364	3.9	4.0	12.366	B
4 - A595	889	222	507	1248	0.712	888	791	2.5	2.6	10.571	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 - B5295 Egremont Rd	291	73	864	1020	0.286	292	285	0.7	0.4	5.050	A
2 - Homewood Rd	279	70	921	642	0.434	282	235	1.7	0.8	10.525	B
3 - A595 Egremont Rd	980	245	82	1507	0.650	988	1121	4.0	1.9	7.228	A
4 - A595	725	181	418	1297	0.559	730	652	2.6	1.4	6.770	A

09:00 - 09:15

Am	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 - B5295 Egremont Rd	244	61	721	1107	0.220	244	237	0.4	0.3	4.258	A
2 - Homewood Rd	233	58	769	713	0.327	235	196	0.8	0.5	7.863	A
3 - A595 Egremont Rd	821	205	68	1515	0.542	823	936	1.9	1.2	5.363	A
4 - A595	608	152	348	1335	0.455	609	543	1.4	0.9	5.253	A

Existing Layout - 2023 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	37.09	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
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Egremont Rd		ONE HOUR	✓	240	100.000
2 - Homewood Rd		ONE HOUR	✓	463	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1289	100.000
4 - A595		ONE HOUR	✓	779	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	11	227	2
	2 - Homewood Rd	10	0	289	164
	3 - A595 Egremont Rd	333	143	15	798
	4 - A595	6	56	717	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	1	0
	2 - Homewood Rd	25	0	2	1
	3 - A595 Egremont Rd	2	1	7	2
	4 - A595	20	0	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 - B5295 Egremont Rd	0.29	5.54	0.4	A	220	330
2 - Homewood Rd	0.88	47.53	6.3	E	425	637
3 - A595 Egremont Rd	0.98	55.71	21.4	F	1183	1774
4 - A595	0.70	9.81	2.3	A	715	1072

Main Results for each time segment

16:00 - 16:15

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 - B5295 Egremont Rd	181	45	697	1122	0.161	180	261	0.0	0.2	3.872	A
2 - Homewood Rd	349	87	720	736	0.474	345	157	0.0	0.9	9.316	A
3 - A595 Egremont Rd	970	243	131	1478	0.657	963	934	0.0	1.9	7.020	A
4 - A595	586	147	374	1321	0.444	583	720	0.0	0.8	4.911	A

16:15 - 16:30

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 - B5295 Egremont Rd	216	54	834	1037	0.208	215	312	0.2	0.3	4.438	A
2 - Homewood Rd	416	104	862	669	0.622	413	188	0.9	1.6	14.193	B
3 - A595 Egremont Rd	1159	290	157	1463	0.792	1152	1118	1.9	3.7	11.529	B
4 - A595	700	175	448	1280	0.547	699	861	0.8	1.2	6.235	A

16:30 - 16:45

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 - B5295 Egremont Rd	264	66	1015	927	0.285	264	371	0.3	0.4	5.493	A
2 - Homewood Rd	510	127	1053	580	0.879	494	225	1.6	5.5	37.635	E
3 - A595 Egremont Rd	1419	355	188	1445	0.982	1370	1360	3.7	16.0	35.663	E
4 - A595	858	214	533	1234	0.695	854	1025	1.2	2.2	9.468	A

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 - B5295 Egremont Rd	264	66	1022	923	0.286	264	379	0.4	0.4	5.539	A
2 - Homewood Rd	510	127	1058	578	0.882	507	229	5.5	6.3	47.526	E
3 - A595 Egremont Rd	1419	355	193	1442	0.984	1398	1372	16.0	21.4	55.712	F
4 - A595	858	214	543	1228	0.699	857	1047	2.2	2.3	9.811	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 - B5295 Egremont Rd	216	54	849	1028	0.210	216	332	0.4	0.3	4.498	A
2 - Homewood Rd	416	104	869	666	0.625	434	197	6.3	1.8	16.956	C
3 - A595 Egremont Rd	1159	290	165	1458	0.795	1227	1138	21.4	4.2	19.843	C
4 - A595	700	175	477	1264	0.554	704	915	2.3	1.3	6.542	A

17:15 - 17:30

Am	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 - B5295 Egremont Rd	181	45	704	1117	0.162	181	265	0.3	0.2	3.900	A
2 - Homewood Rd	349	87	726	733	0.475	352	159	1.8	0.9	9.719	A
3 - A595 Egremont Rd	970	243	134	1477	0.657	979	944	4.2	2.0	7.506	A
4 - A595	586	147	381	1317	0.445	588	732	1.3	0.8	5.001	A

Existing Layout - 2028 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	12.10	B

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	2028 Baseline Flows	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 - B5295 Egremont Rd		ONE HOUR	✓	253	100.000
2 - Homewood Rd		ONE HOUR	✓	321	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1096	100.000
4 - A595		ONE HOUR	✓	834	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	2	7	243	1
	2 - Homewood Rd	7	0	231	83
	3 - A595 Egremont Rd	281	141	16	658
	4 - A595	5	121	708	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	0	2	0
	2 - Homewood Rd	0	0	4	5
	3 - A595 Egremont Rd	2	2	0	3
	4 - A595	25	3	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 - B5295 Egremont Rd	0.31	6.05	0.5	A	232	348
2 - Homewood Rd	0.62	17.01	1.6	C	295	442
3 - A595 Egremont Rd	0.81	12.72	4.1	B	1006	1509
4 - A595	0.73	11.23	2.8	B	765	1148

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 - B5295 Egremont Rd	190	48	738	1096	0.174	190	221	0.0	0.2	4.043	A
2 - Homewood Rd	242	60	726	733	0.330	240	201	0.0	0.5	7.574	A
3 - A595 Egremont Rd	825	206	69	1514	0.545	820	896	0.0	1.2	5.285	A
4 - A595	628	157	335	1343	0.468	624	555	0.0	0.9	5.267	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 - B5295 Egremont Rd	227	57	884	1007	0.226	227	264	0.2	0.3	4.701	A
2 - Homewood Rd	289	72	870	666	0.434	287	241	0.5	0.8	9.886	A
3 - A595 Egremont Rd	985	246	83	1506	0.654	983	1074	1.2	1.9	7.014	A
4 - A595	750	187	401	1306	0.574	748	665	0.9	1.4	6.787	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 - B5295 Egremont Rd	279	70	1079	888	0.314	278	323	0.3	0.5	6.005	A
2 - Homewood Rd	353	88	1063	576	0.614	350	294	0.8	1.6	16.409	C
3 - A595 Egremont Rd	1207	302	101	1495	0.807	1198	1311	1.9	4.0	12.086	B
4 - A595	918	230	489	1258	0.730	913	811	1.4	2.7	10.859	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 - B5295 Egremont Rd	279	70	1085	884	0.315	279	325	0.5	0.5	6.054	A
2 - Homewood Rd	353	88	1068	573	0.617	353	296	1.6	1.6	17.012	C
3 - A595 Egremont Rd	1207	302	102	1495	0.807	1206	1319	4.0	4.1	12.724	B
4 - A595	918	230	492	1256	0.731	918	817	2.7	2.8	11.229	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 - B5295 Egremont Rd	227	57	893	1002	0.227	228	268	0.5	0.3	4.745	A
2 - Homewood Rd	289	72	877	662	0.436	292	244	1.6	0.8	10.210	B
3 - A595 Egremont Rd	985	246	85	1505	0.655	994	1085	4.1	2.0	7.339	A
4 - A595	750	187	405	1304	0.575	755	673	2.8	1.5	6.998	A

09:00 - 09:15

Am	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 - B5295 Egremont Rd	190	48	745	1092	0.174	191	223	0.3	0.2	4.071	A
2 - Homewood Rd	242	60	732	730	0.331	243	203	0.8	0.5	7.718	A
3 - A595 Egremont Rd	825	206	70	1514	0.545	828	905	2.0	1.2	5.411	A
4 - A595	628	157	338	1341	0.468	630	561	1.5	0.9	5.363	A

Existing Layout - 2028 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	33.15	D

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	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Egremont Rd		ONE HOUR	✓	211	100.000
2 - Homewood Rd		ONE HOUR	✓	477	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1260	100.000
4 - A595		ONE HOUR	✓	806	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	11	198	2
	2 - Homewood Rd	10	0	298	169
	3 - A595 Egremont Rd	273	147	16	824
	4 - A595	7	58	741	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	1	0
	2 - Homewood Rd	25	0	2	1
	3 - A595 Egremont Rd	2	1	7	2
	4 - A595	20	0	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 - B5295 Egremont Rd	0.26	5.45	0.4	A	194	290
2 - Homewood Rd	0.91	54.91	7.4	F	438	657
3 - A595 Egremont Rd	0.96	44.51	16.3	E	1156	1734
4 - A595	0.70	9.77	2.4	A	740	1109

Main Results for each time segment

16:00 - 16:15

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 - B5295 Egremont Rd	159	40	720	1107	0.143	158	217	0.0	0.2	3.844	A
2 - Homewood Rd	359	90	717	737	0.487	355	162	0.0	0.9	9.527	A
3 - A595 Egremont Rd	949	237	135	1476	0.643	941	937	0.0	1.8	6.777	A
4 - A595	607	152	333	1344	0.452	604	743	0.0	0.8	4.895	A

16:15 - 16:30

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 - B5295 Egremont Rd	190	47	862	1020	0.186	189	259	0.2	0.2	4.392	A
2 - Homewood Rd	429	107	858	671	0.639	426	193	0.9	1.7	14.783	B
3 - A595 Egremont Rd	1133	283	162	1460	0.776	1126	1123	1.8	3.4	10.787	B
4 - A595	725	181	399	1307	0.554	723	889	0.8	1.2	6.207	A

16:30 - 16:45

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 - B5295 Egremont Rd	232	58	1050	906	0.256	232	311	0.2	0.3	5.412	A
2 - Homewood Rd	525	131	1049	582	0.902	507	233	1.7	6.3	41.499	E
3 - A595 Egremont Rd	1387	347	192	1442	0.962	1349	1363	3.4	13.0	30.826	D
4 - A595	887	222	477	1264	0.702	883	1064	1.2	2.3	9.445	A

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 - B5295 Egremont Rd	232	58	1057	902	0.258	232	316	0.3	0.4	5.455	A
2 - Homewood Rd	525	131	1053	580	0.906	521	236	6.3	7.4	54.907	F
3 - A595 Egremont Rd	1387	347	198	1439	0.964	1374	1376	13.0	16.3	44.512	E
4 - A595	887	222	486	1259	0.705	887	1085	2.3	2.4	9.768	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 - B5295 Egremont Rd	190	47	875	1012	0.187	190	272	0.4	0.2	4.443	A
2 - Homewood Rd	429	107	865	668	0.642	451	200	7.4	1.9	18.486	C
3 - A595 Egremont Rd	1133	283	171	1455	0.779	1183	1145	16.3	3.8	15.648	C
4 - A595	725	181	419	1296	0.559	729	935	2.4	1.3	6.456	A

17:15 - 17:30

Am	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 - B5295 Egremont Rd	159	40	727	1103	0.144	159	220	0.2	0.2	3.870	A
2 - Homewood Rd	359	90	722	735	0.489	363	164	1.9	1.0	9.977	A
3 - A595 Egremont Rd	949	237	138	1474	0.643	956	948	3.8	1.9	7.184	A
4 - A595	607	152	339	1341	0.453	609	755	1.3	0.8	4.982	A

Existing Layout - 2028 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	13.37	B

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
D9	2028 with Dev. Flows	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 - B5295 Egremont Rd		ONE HOUR	✓	332	100.000
2 - Homewood Rd		ONE HOUR	✓	321	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1125	100.000
4 - A595		ONE HOUR	✓	834	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	2	7	322	1
	2 - Homewood Rd	7	0	231	83
	3 - A595 Egremont Rd	310	141	16	658
	4 - A595	5	121	708	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	0	2	0
	2 - Homewood Rd	0	0	4	5
	3 - A595 Egremont Rd	2	2	0	3
	4 - A595	25	3	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 - B5295 Egremont Rd	0.41	7.07	0.7	A	305	457
2 - Homewood Rd	0.66	20.81	2.0	C	295	442
3 - A595 Egremont Rd	0.83	14.26	4.7	B	1032	1548
4 - A595	0.74	11.84	3.0	B	765	1148

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 - B5295 Egremont Rd	250	62	738	1096	0.228	249	242	0.0	0.3	4.323	A
2 - Homewood Rd	242	60	785	705	0.343	240	201	0.0	0.5	8.016	A
3 - A595 Egremont Rd	847	212	69	1514	0.559	842	955	0.0	1.3	5.450	A
4 - A595	628	157	356	1331	0.472	624	555	0.0	0.9	5.354	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 - B5295 Egremont Rd	298	75	884	1007	0.296	298	290	0.3	0.4	5.170	A
2 - Homewood Rd	289	72	941	633	0.456	287	241	0.5	0.9	10.820	B
3 - A595 Egremont Rd	1011	253	83	1506	0.672	1008	1145	1.3	2.0	7.371	A
4 - A595	750	187	427	1292	0.580	748	665	0.9	1.4	6.960	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 - B5295 Egremont Rd	366	91	1078	889	0.411	364	354	0.4	0.7	6.987	A
2 - Homewood Rd	353	88	1149	535	0.660	349	294	0.9	1.9	19.722	C
3 - A595 Egremont Rd	1239	310	101	1496	0.828	1229	1397	2.0	4.6	13.342	B
4 - A595	918	230	520	1241	0.740	912	810	1.4	2.9	11.411	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 - B5295 Egremont Rd	366	91	1085	885	0.413	366	357	0.7	0.7	7.070	A
2 - Homewood Rd	353	88	1155	533	0.664	353	296	1.9	2.0	20.810	C
3 - A595 Egremont Rd	1239	310	102	1495	0.829	1238	1405	4.6	4.7	14.256	B
4 - A595	918	230	524	1238	0.741	918	816	2.9	3.0	11.835	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 - B5295 Egremont Rd	298	75	894	1001	0.298	300	294	0.7	0.4	5.236	A
2 - Homewood Rd	289	72	949	629	0.459	293	244	2.0	0.9	11.309	B
3 - A595 Egremont Rd	1011	253	85	1505	0.672	1022	1157	4.7	2.2	7.793	A
4 - A595	750	187	432	1289	0.582	756	674	3.0	1.5	7.208	A

09:00 - 09:15

Am	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 - B5295 Egremont Rd	250	62	745	1092	0.229	250	245	0.4	0.3	4.364	A
2 - Homewood Rd	242	60	792	702	0.344	243	203	0.9	0.6	8.196	A
3 - A595 Egremont Rd	847	212	70	1514	0.560	850	965	2.2	1.3	5.593	A
4 - A595	628	157	360	1329	0.472	630	561	1.5	1.0	5.460	A

Existing Layout - 2028 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	A595/B5295 Egremont Rd/Homewood Rd rdt	Standard Roundabout		1, 2, 3, 4	51.80	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Egremont Rd		ONE HOUR	✓	246	100.000
2 - Homewood Rd		ONE HOUR	✓	477	100.000
3 - A595 Egremont Rd		ONE HOUR	✓	1329	100.000
4 - A595		ONE HOUR	✓	806	100.000

Origin-Destination Data

Demand (PCU/hr)

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	11	233	2
	2 - Homewood Rd	10	0	298	169
	3 - A595 Egremont Rd	342	147	16	824
	4 - A595	7	58	741	0

Vehicle Mix

Heavy Vehicle Percentages

	To				
From		1 - B5295 Egremont Rd	2 - Homewood Rd	3 - A595 Egremont Rd	4 - A595
	1 - B5295 Egremont Rd	0	10	1	0
	2 - Homewood Rd	25	0	2	1
	3 - A595 Egremont Rd	2	1	7	2
	4 - A595	20	0	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 - B5295 Egremont Rd	0.30	5.76	0.4	A	226	339
2 - Homewood Rd	0.93	67.99	9.3	F	438	657
3 - A595 Egremont Rd	1.02	79.39	33.3	F	1220	1829
4 - A595	0.72	10.77	2.6	B	740	1109

Main Results for each time segment

16:00 - 16:15

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 - B5295 Egremont Rd	185	46	720	1107	0.167	184	268	0.0	0.2	3.950	A
2 - Homewood Rd	359	90	743	725	0.495	355	161	0.0	1.0	9.830	A
3 - A595 Egremont Rd	1001	250	135	1476	0.678	992	963	0.0	2.1	7.463	A
4 - A595	607	152	384	1315	0.461	603	743	0.0	0.9	5.086	A

16:15 - 16:30

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 - B5295 Egremont Rd	221	55	862	1021	0.217	221	320	0.2	0.3	4.562	A
2 - Homewood Rd	429	107	890	656	0.653	425	193	1.0	1.8	15.668	C
3 - A595 Egremont Rd	1195	299	161	1461	0.818	1186	1154	2.1	4.3	12.968	B
4 - A595	725	181	460	1274	0.569	723	888	0.9	1.3	6.579	A

16:30 - 16:45

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 - B5295 Egremont Rd	271	68	1046	909	0.298	270	376	0.3	0.4	5.711	A
2 - Homewood Rd	525	131	1086	564	0.930	503	230	1.8	7.5	47.943	E
3 - A595 Egremont Rd	1463	366	191	1443	1.014	1392	1398	4.3	22.1	44.861	E
4 - A595	887	222	539	1230	0.722	883	1043	1.3	2.5	10.335	B

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 - B5295 Egremont Rd	271	68	1053	904	0.300	271	384	0.4	0.4	5.763	A
2 - Homewood Rd	525	131	1091	562	0.934	518	233	7.5	9.3	67.994	F
3 - A595 Egremont Rd	1463	366	197	1440	1.016	1418	1413	22.1	33.3	79.386	F
4 - A595	887	222	550	1224	0.725	887	1065	2.5	2.6	10.773	B

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 - B5295 Egremont Rd	221	55	883	1008	0.219	222	352	0.4	0.3	4.647	A
2 - Homewood Rd	429	107	898	653	0.657	458	207	9.3	2.1	21.317	C
3 - A595 Egremont Rd	1195	299	174	1453	0.822	1307	1182	33.3	5.3	36.231	E
4 - A595	725	181	506	1248	0.581	729	974	2.6	1.4	7.075	A

17:15 - 17:30

Am	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 - B5295 Egremont Rd	185	46	728	1103	0.168	186	274	0.3	0.2	3.980	A
2 - Homewood Rd	359	90	749	722	0.497	363	164	2.1	1.0	10.350	B
3 - A595 Egremont Rd	1001	250	138	1474	0.679	1013	975	5.3	2.2	8.157	A
4 - A595	607	152	392	1311	0.463	609	758	1.4	0.9	5.200	A



Appendix O – JUNCTIONS 9 Output (J10)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: 03 J10 (Hour).j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J10 A595_Rosehill Pri

Report generation date: 22/10/2018 11:48:29

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-AC	2.0	99.64	0.68	3.06	3.9	161.69	0.86	5.06
Stream C-AB	0.2	12.28	0.16		0.2	11.40	0.14	
	Existing Layout - 2023 Baseline Flows							
Stream B-AC	3.6	166.25	0.83	5.08	4.8	187.65	0.91	5.91
Stream C-AB	0.3	13.05	0.19		0.2	12.05	0.16	
	Existing Layout - 2023 with Dev. Flows							
Stream B-AC	4.9	194.44	0.90	6.28	5.5	205.74	0.94	6.57
Stream C-AB	0.3	13.15	0.19		0.2	12.38	0.16	
	Existing Layout - 2028 Baseline Flows							
Stream B-AC	3.9	168.40	0.85	5.12	5.5	206.06	0.94	6.49
Stream C-AB	0.3	13.54	0.20		0.2	12.48	0.17	
	Existing Layout - 2028 with Dev. Flows							
Stream B-AC	5.3	207.10	0.92	6.63	6.3	226.66	0.98	7.24
Stream C-AB	0.3	13.64	0.20		0.2	12.81	0.18	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	A595 / Rosehill Priority Junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	A595/Rosehill Priority Junction	T-Junction	Two-way		3.06	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A595 (N)		Major
B	Rosehill		Minor
C	A595 (S)		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 (S)	6.50		✓	3.50	150.0	✓	2.00

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 - Rosehill	One lane	3.90	49	36

Slope / Intercept / Capacity

Stream Intercept Adjustments

Stream intercept adjustment	Use adjustment	Reason	Direct intercept adjustment (PCU/hr)
B-AC	✓		105

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	557	0.099	0.251	0.158	0.359
1	B-C	705	0.106	0.267	-	-
1	C-B	754	0.286	0.286	-	-

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	2018 Surveyed Flows	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 - A595 (N)		ONE HOUR	✓	1368	100.000
B - Rosehill		ONE HOUR	✓	73	100.000
C - A595 (S)		ONE HOUR	✓	1141	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
	A - A595 (N)	0	212	1156
	B - Rosehill	29	0	44
	C - A595 (S)	1093	48	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
	A - A595 (N)	0	12	6
	B - Rosehill	33	0	2
	C - A595 (S)	4	2	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-AC	0.68	99.64	2.0	F	67	100
C-AB	0.16	12.28	0.2	B	47	70
C-A					1000	1501
A-B					195	292
A-C					1061	1591

Main Results for each time segment

07:45 - 08:00

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-AC	55	14	388	0.142	54	0.0	0.2	12.087	B
C-AB	37	9	465	0.079	36	0.0	0.1	8.549	A
C-A	822	206			822				
A-B	160	40			160				
A-C	870	218			870				

08:00 - 08:15

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-AC	66	16	297	0.221	65	0.2	0.3	17.390	C
C-AB	44	11	415	0.107	44	0.1	0.1	9.908	A
C-A	981	245			981				
A-B	191	48			191				
A-C	1039	260			1039				

08:15 - 08:30

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-AC	80	20	119	0.678	74	0.3	1.8	83.163	F
C-AB	58	15	358	0.163	58	0.1	0.2	12.254	B
C-A	1198	299			1198				
A-B	233	58			233				
A-C	1273	318			1273				

08:30 - 08:45

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-AC	80	20	118	0.679	79	1.8	2.0	99.636	F
C-AB	58	15	358	0.163	58	0.2	0.2	12.283	B
C-A	1198	299			1198				
A-B	233	58			233				
A-C	1273	318			1273				

08:45 - 09:00

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-AC	66	16	297	0.221	72	2.0	0.3	18.532	C
C-AB	44	11	415	0.107	45	0.2	0.1	9.936	A
C-A	981	245			981				
A-B	191	48			191				
A-C	1039	260			1039				

09:00 - 09:15

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-AC	55	14	388	0.142	56	0.3	0.2	12.184	B
C-AB	37	9	466	0.079	37	0.1	0.1	8.569	A
C-A	822	206			822				
A-B	160	40			160				
A-C	870	218			870				

Existing Layout - 2018 Surveyed Flows , 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	A595/Rosehill Priority Junction	T-Junction	Two-way		5.06	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)	Run automatically
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 (N)		ONE HOUR	✓	1315	100.000
B - Rosehill		ONE HOUR	✓	82	100.000
C - A595 (S)		ONE HOUR	✓	1323	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	200	1115
	B - Rosehill	28	0	54
	C - A595 (S)	1280	43	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	6	2
	B - Rosehill	13	0	0
	C - A595 (S)	3	0	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-AC	0.86	161.69	3.9	F	75	113
C-AB	0.14	11.40	0.2	B	41	62
C-A					1173	1759
A-B					184	275
A-C					1023	1535

Main Results for each time segment

16:00 - 16:15

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-AC	62	15	395	0.156	61	0.0	0.2	11.202	B
C-AB	33	8	476	0.069	32	0.0	0.1	8.116	A
C-A	963	241			963				
A-B	151	38			151				
A-C	839	210			839				

16:15 - 16:30

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-AC	74	18	294	0.250	73	0.2	0.3	16.884	C
C-AB	40	10	426	0.093	39	0.1	0.1	9.312	A
C-A	1150	287			1150				
A-B	180	45			180				
A-C	1002	251			1002				

16:30 - 16:45

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-AC	90	23	105	0.860	79	0.3	3.1	119.096	F
C-AB	51	13	367	0.139	51	0.1	0.2	11.382	B
C-A	1406	351			1406				
A-B	220	55			220				
A-C	1228	307			1228				

16:45 - 17:00

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-AC	90	23	105	0.860	87	3.1	3.9	161.687	F
C-AB	51	13	368	0.139	51	0.2	0.2	11.400	B
C-A	1406	351			1406				
A-B	220	55			220				
A-C	1228	307			1228				

17:00 - 17:15

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-AC	74	18	294	0.251	88	3.9	0.4	19.311	C
C-AB	40	10	427	0.093	40	0.2	0.1	9.330	A
C-A	1150	287			1150				
A-B	180	45			180				
A-C	1002	251			1002				

17:15 - 17:30

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-AC	62	15	395	0.156	62	0.4	0.2	11.301	B
C-AB	33	8	476	0.069	33	0.1	0.1	8.130	A
C-A	963	241			963				
A-B	151	38			151				
A-C	839	210			839				

Existing Layout - 2023 Baseline Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		5.08	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	2023 Baseline Flows	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 - A595 (N)		ONE HOUR	✓	1444	100.000
B - Rosehill		ONE HOUR	✓	79	100.000
C - A595 (S)		ONE HOUR	✓	1204	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	225	1219
	B - Rosehill	33	0	46
	C - A595 (S)	1153	51	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	12	6
	B - Rosehill	33	0	2
	C - A595 (S)	4	2	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-AC	0.83	166.25	3.6	F	72	109
C-AB	0.19	13.05	0.3	B	51	76
C-A					1054	1581
A-B					206	310
A-C					1119	1678

Main Results for each time segment

07:45 - 08:00

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-AC	59	15	359	0.166	59	0.0	0.2	13.513	B
C-AB	39	10	451	0.087	39	0.0	0.1	8.906	A
C-A	867	217			867				
A-B	169	42			169				
A-C	918	229			918				

08:00 - 08:15

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-AC	71	18	257	0.277	70	0.2	0.4	21.716	C
C-AB	48	12	399	0.120	48	0.1	0.1	10.445	B
C-A	1035	259			1035				
A-B	202	51			202				
A-C	1096	274			1096				

08:15 - 08:30

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-AC	87	22	105	0.828	77	0.4	2.9	120.521	F
C-AB	65	16	347	0.187	65	0.1	0.3	13.009	B
C-A	1261	315			1261				
A-B	248	62			248				
A-C	1342	336			1342				

08:30 - 08:45

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-AC	87	22	105	0.828	84	2.9	3.6	166.253	F
C-AB	65	16	347	0.187	65	0.3	0.3	13.055	B
C-A	1261	315			1261				
A-B	248	62			248				
A-C	1342	336			1342				

08:45 - 09:00

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-AC	71	18	256	0.277	84	3.6	0.4	25.118	D
C-AB	48	12	400	0.120	48	0.3	0.1	10.483	B
C-A	1035	259			1035				
A-B	202	51			202				
A-C	1096	274			1096				

09:00 - 09:15

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-AC	59	15	359	0.166	60	0.4	0.2	13.681	B
C-AB	39	10	451	0.087	39	0.1	0.1	8.932	A
C-A	867	217			867				
A-B	169	42			169				
A-C	918	229			918				

Existing Layout - 2023 Baseline Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		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
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 (N)		ONE HOUR	✓	1383	100.000
B - Rosehill		ONE HOUR	✓	87	100.000
C - A595 (S)		ONE HOUR	✓	1391	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	211	1172
	B - Rosehill	30	0	57
	C - A595 (S)	1346	45	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	6	2
	B - Rosehill	13	0	0
	C - A595 (S)	3	0	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-AC	0.91	187.65	4.8	F	80	120
C-AB	0.16	12.05	0.2	B	44	66
C-A					1233	1849
A-B					194	290
A-C					1075	1613

Main Results for each time segment

16:00 - 16:15

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-AC	65	16	370	0.177	65	0.0	0.2	12.257	B
C-AB	34	9	462	0.074	34	0.0	0.1	8.403	A
C-A	1013	253			1013				
A-B	159	40			159				
A-C	882	221			882				

16:15 - 16:30

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-AC	78	20	255	0.307	77	0.2	0.4	20.999	C
C-AB	42	10	411	0.101	42	0.1	0.1	9.742	A
C-A	1209	302			1209				
A-B	190	47			190				
A-C	1054	263			1054				

16:30 - 16:45

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-AC	96	24	105	0.912	83	0.4	3.6	132.643	F
C-AB	55	14	354	0.155	55	0.1	0.2	12.028	B
C-A	1476	369			1476				
A-B	232	58			232				
A-C	1290	323			1290				

16:45 - 17:00

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-AC	96	24	105	0.912	91	3.6	4.8	187.646	F
C-AB	55	14	355	0.155	55	0.2	0.2	12.054	B
C-A	1476	369			1476				
A-B	232	58			232				
A-C	1290	323			1290				

17:00 - 17:15

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-AC	78	20	255	0.307	96	4.8	0.5	25.969	D
C-AB	42	10	412	0.101	42	0.2	0.1	9.766	A
C-A	1209	302			1209				
A-B	190	47			190				
A-C	1054	263			1054				

17:15 - 17:30

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-AC	65	16	369	0.177	66	0.5	0.2	12.417	B
C-AB	34	9	462	0.074	34	0.1	0.1	8.422	A
C-A	1013	253			1013				
A-B	159	40			159				
A-C	882	221			882				

Existing Layout - 2023 with Dev. Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		6.28	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)	Run automatically
D5	2023 with Dev. Flows	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 - A595 (N)		ONE HOUR	✓	1457	100.000
B - Rosehill		ONE HOUR	✓	86	100.000
C - A595 (S)		ONE HOUR	✓	1234	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	227	1230
	B - Rosehill	40	0	46
	C - A595 (S)	1183	51	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	12	6
	B - Rosehill	33	0	2
	C - A595 (S)	4	2	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-AC	0.90	194.44	4.9	F	79	118
C-AB	0.19	13.15	0.3	B	51	76
C-A					1081	1622
A-B					208	312
A-C					1129	1693

Main Results for each time segment

07:45 - 08:00

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-AC	65	16	340	0.190	64	0.0	0.3	14.824	B
C-AB	39	10	448	0.087	39	0.0	0.1	8.962	A
C-A	890	222			890				
A-B	171	43			171				
A-C	926	232			926				

08:00 - 08:15

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-AC	77	19	237	0.326	76	0.3	0.5	25.470	D
C-AB	48	12	397	0.121	48	0.1	0.1	10.527	B
C-A	1061	265			1061				
A-B	204	51			204				
A-C	1106	276			1106				

08:15 - 08:30

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-AC	95	24	105	0.902	82	0.5	3.7	139.661	F
C-AB	66	16	346	0.190	65	0.1	0.3	13.110	B
C-A	1293	323			1293				
A-B	250	62			250				
A-C	1354	339			1354				

08:30 - 08:45

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-AC	95	24	105	0.902	90	3.7	4.9	194.436	F
C-AB	66	16	346	0.190	66	0.3	0.3	13.154	B
C-A	1293	323			1293				
A-B	250	62			250				
A-C	1354	339			1354				

08:45 - 09:00

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-AC	77	19	237	0.327	95	4.9	0.6	32.183	D
C-AB	48	12	397	0.121	48	0.3	0.1	10.567	B
C-A	1061	265			1061				
A-B	204	51			204				
A-C	1106	276			1106				

09:00 - 09:15

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-AC	65	16	340	0.190	66	0.6	0.3	15.083	C
C-AB	39	10	448	0.087	39	0.1	0.1	8.986	A
C-A	890	222			890				
A-B	171	43			171				
A-C	926	232			926				

Existing Layout - 2023 with Dev. Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		6.57	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 (N)		ONE HOUR	✓	1414	100.000
B - Rosehill		ONE HOUR	✓	90	100.000
C - A595 (S)		ONE HOUR	✓	1404	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	216	1198
	B - Rosehill	33	0	57
	C - A595 (S)	1359	45	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	6	2
	B - Rosehill	13	0	0
	C - A595 (S)	3	0	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-AC	0.94	205.74	5.5	F	83	124
C-AB	0.16	12.38	0.2	B	44	66
C-A					1244	1867
A-B					198	297
A-C					1099	1649

Main Results for each time segment

16:00 - 16:15

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-AC	68	17	354	0.191	67	0.0	0.2	13.048	B
C-AB	34	9	456	0.075	34	0.0	0.1	8.533	A
C-A	1023	256			1023				
A-B	163	41			163				
A-C	902	225			902				

16:15 - 16:30

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-AC	81	20	235	0.344	80	0.2	0.5	24.032	C
C-AB	42	10	404	0.104	42	0.1	0.1	9.943	A
C-A	1220	305			1220				
A-B	194	49			194				
A-C	1077	269			1077				

16:30 - 16:45

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-AC	99	25	105	0.944	85	0.5	4.0	141.985	F
C-AB	56	14	347	0.160	55	0.1	0.2	12.350	B
C-A	1490	373			1490				
A-B	238	59			238				
A-C	1319	330			1319				

16:45 - 17:00

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-AC	99	25	105	0.944	93	4.0	5.5	205.740	F
C-AB	56	14	348	0.160	56	0.2	0.2	12.376	B
C-A	1490	373			1490				
A-B	238	59			238				
A-C	1319	330			1319				

17:00 - 17:15

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-AC	81	20	235	0.345	101	5.5	0.6	31.833	D
C-AB	42	10	405	0.103	42	0.2	0.1	9.971	A
C-A	1220	305			1220				
A-B	194	49			194				
A-C	1077	269			1077				

17:15 - 17:30

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-AC	68	17	354	0.192	69	0.6	0.3	13.260	B
C-AB	34	9	456	0.075	34	0.1	0.1	8.552	A
C-A	1023	256			1023				
A-B	163	41			163				
A-C	902	225			902				

Existing Layout - 2028 Baseline Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		5.12	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	2028 Baseline Flows	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 - A595 (N)		ONE HOUR	✓	1493	100.000
B - Rosehill		ONE HOUR	✓	81	100.000
C - A595 (S)		ONE HOUR	✓	1244	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	233	1260
	B - Rosehill	34	0	47
	C - A595 (S)	1192	52	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	12	6
	B - Rosehill	33	0	2
	C - A595 (S)	4	2	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-AC	0.85	168.40	3.9	F	74	111
C-AB	0.20	13.54	0.3	B	53	79
C-A					1089	1633
A-B					214	321
A-C					1156	1734

Main Results for each time segment

07:45 - 08:00

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-AC	61	15	342	0.178	60	0.0	0.2	14.371	B
C-AB	40	10	441	0.090	39	0.0	0.1	9.138	A
C-A	897	224			897				
A-B	175	44			175				
A-C	949	237			949				

08:00 - 08:15

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-AC	73	18	232	0.314	72	0.2	0.5	25.251	D
C-AB	49	12	389	0.126	49	0.1	0.2	10.798	B
C-A	1069	267			1069				
A-B	209	52			209				
A-C	1133	283			1133				

08:15 - 08:30

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-AC	89	22	105	0.849	79	0.5	3.1	126.226	F
C-AB	69	17	341	0.202	68	0.2	0.3	13.485	B
C-A	1301	325			1301				
A-B	257	64			257				
A-C	1387	347			1387				

08:30 - 08:45

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-AC	89	22	105	0.849	86	3.1	3.9	168.397	F
C-AB	69	17	341	0.201	69	0.3	0.3	13.543	B
C-A	1301	325			1301				
A-B	257	64			257				
A-C	1387	347			1387				

08:45 - 09:00

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-AC	73	18	232	0.314	86	3.9	0.5	30.376	D
C-AB	49	12	390	0.126	50	0.3	0.2	10.849	B
C-A	1069	267			1069				
A-B	209	52			209				
A-C	1133	283			1133				

09:00 - 09:15

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-AC	61	15	342	0.178	62	0.5	0.3	14.601	B
C-AB	40	10	441	0.090	40	0.2	0.1	9.166	A
C-A	897	224			897				
A-B	175	44			175				
A-C	949	237			949				

Existing Layout - 2028 Baseline Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		6.49	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)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 (N)		ONE HOUR	✓	1428	100.000
B - Rosehill		ONE HOUR	✓	90	100.000
C - A595 (S)		ONE HOUR	✓	1436	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	218	1210
	B - Rosehill	31	0	59
	C - A595 (S)	1389	47	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	6	2
	B - Rosehill	13	0	0
	C - A595 (S)	3	0	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-AC	0.94	206.06	5.5	F	83	124
C-AB	0.17	12.48	0.2	B	46	70
C-A					1271	1907
A-B					200	300
A-C					1110	1665

Main Results for each time segment

16:00 - 16:15

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-AC	68	17	353	0.192	67	0.0	0.2	13.063	B
C-AB	36	9	454	0.079	36	0.0	0.1	8.610	A
C-A	1045	261			1045				
A-B	164	41			164				
A-C	911	228			911				

16:15 - 16:30

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-AC	81	20	226	0.357	80	0.2	0.6	25.341	D
C-AB	44	11	402	0.109	44	0.1	0.1	10.047	B
C-A	1247	312			1247				
A-B	196	49			196				
A-C	1088	272			1088				

16:30 - 16:45

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-AC	99	25	105	0.944	85	0.6	4.0	142.309	F
C-AB	59	15	348	0.170	59	0.1	0.2	12.449	B
C-A	1522	380			1522				
A-B	240	60			240				
A-C	1332	333			1332				

16:45 - 17:00

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-AC	99	25	105	0.944	93	4.0	5.5	206.061	F
C-AB	59	15	349	0.170	59	0.2	0.2	12.483	B
C-A	1522	380			1522				
A-B	240	60			240				
A-C	1332	333			1332				

17:00 - 17:15

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-AC	81	20	226	0.358	100	5.5	0.6	34.105	D
C-AB	44	11	403	0.109	44	0.2	0.1	10.083	B
C-A	1247	312			1247				
A-B	196	49			196				
A-C	1088	272			1088				

17:15 - 17:30

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-AC	68	17	353	0.192	69	0.6	0.3	13.293	B
C-AB	36	9	454	0.079	36	0.1	0.1	8.632	A
C-A	1045	261			1045				
A-B	164	41			164				
A-C	911	228			911				

Existing Layout - 2028 with Dev. Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		6.63	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)	Run automatically
D9	2028 with Dev. Flows	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 - A595 (N)		ONE HOUR	✓	1506	100.000
B - Rosehill		ONE HOUR	✓	88	100.000
C - A595 (S)		ONE HOUR	✓	1273	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	235	1271
	B - Rosehill	41	0	47
	C - A595 (S)	1221	52	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	12	6
	B - Rosehill	33	0	2
	C - A595 (S)	4	2	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-AC	0.92	207.10	5.3	F	81	121
C-AB	0.20	13.64	0.3	B	53	79
C-A					1115	1673
A-B					216	323
A-C					1166	1749

Main Results for each time segment

07:45 - 08:00

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-AC	66	17	324	0.204	65	0.0	0.3	15.824	C
C-AB	40	10	439	0.091	39	0.0	0.1	9.196	A
C-A	918	230			918				
A-B	177	44			177				
A-C	957	239			957				

08:00 - 08:15

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-AC	79	20	213	0.372	78	0.3	0.6	30.158	D
C-AB	49	12	386	0.127	49	0.1	0.2	10.884	B
C-A	1095	274			1095				
A-B	211	53			211				
A-C	1143	286			1143				

08:15 - 08:30

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-AC	97	24	105	0.923	84	0.6	4.0	146.795	F
C-AB	69	17	340	0.205	69	0.2	0.3	13.579	B
C-A	1332	333			1332				
A-B	259	65			259				
A-C	1399	350			1399				

08:30 - 08:45

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-AC	97	24	105	0.923	92	4.0	5.3	207.101	F
C-AB	69	17	340	0.204	69	0.3	0.3	13.636	B
C-A	1332	333			1332				
A-B	259	65			259				
A-C	1399	350			1399				

08:45 - 09:00

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-AC	79	20	212	0.372	98	5.3	0.7	40.850	E
C-AB	49	12	387	0.127	50	0.3	0.2	10.936	B
C-A	1095	274			1095				
A-B	211	53			211				
A-C	1143	286			1143				

09:00 - 09:15

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-AC	66	17	324	0.204	68	0.7	0.3	16.182	C
C-AB	40	10	439	0.091	40	0.2	0.1	9.226	A
C-A	918	230			918				
A-B	177	44			177				
A-C	957	239			957				

Existing Layout - 2028 with Dev. Flows, 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	A595/Rosehill Priority Junction	T-Junction	Two-way		7.24	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 (N)		ONE HOUR	✓	1459	100.000
B - Rosehill		ONE HOUR	✓	93	100.000
C - A595 (S)		ONE HOUR	✓	1449	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	223	1236
	B - Rosehill	34	0	59
	C - A595 (S)	1402	47	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 (N)	B - Rosehill	C - A595 (S)
From	A - A595 (N)	0	6	2
	B - Rosehill	13	0	0
	C - A595 (S)	3	0	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-AC	0.98	226.66	6.3	F	85	128
C-AB	0.18	12.81	0.2	B	47	70
C-A					1283	1924
A-B					205	307
A-C					1134	1701

Main Results for each time segment

16:00 - 16:15

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-AC	70	18	337	0.208	69	0.0	0.3	13.951	B
C-AB	36	9	447	0.080	36	0.0	0.1	8.745	A
C-A	1055	264			1055				
A-B	168	42			168				
A-C	931	233			931				

16:15 - 16:30

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-AC	84	21	206	0.406	82	0.3	0.7	29.932	D
C-AB	44	11	395	0.111	44	0.1	0.1	10.260	B
C-A	1259	315			1259				
A-B	200	50			200				
A-C	1111	278			1111				

16:30 - 16:45

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-AC	102	26	105	0.975	87	0.7	4.5	153.046	F
C-AB	60	15	342	0.176	60	0.1	0.2	12.768	B
C-A	1535	384			1535				
A-B	246	61			246				
A-C	1361	340			1361				

16:45 - 17:00

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-AC	102	26	105	0.975	95	4.5	6.3	226.656	F
C-AB	60	15	343	0.175	60	0.2	0.2	12.808	B
C-A	1535	384			1535				
A-B	246	61			246				
A-C	1361	340			1361				

17:00 - 17:15

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-AC	84	21	206	0.407	106	6.3	0.8	44.877	E
C-AB	44	11	396	0.111	44	0.2	0.1	10.297	B
C-A	1259	315			1259				
A-B	200	50			200				
A-C	1111	278			1111				

17:15 - 17:30

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-AC	70	18	337	0.208	72	0.8	0.3	14.284	B
C-AB	36	9	447	0.080	36	0.1	0.1	8.766	A
C-A	1055	264			1055				
A-B	168	42			168				
A-C	931	233			931				



Appendix P – JUNCTIONS 9 Output (J11)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: J11.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J11 A595_Victoria Road (Sunny Hill Pub) Pri

Report generation date: 22/10/2018 11:50:06

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-C	0.1	7.54	0.08	1.26	0.4	10.07	0.28	2.00
Stream B-A	0.1	17.95	0.09		0.3	21.54	0.20	
Stream C-AB	1.2	5.11	0.33		1.2	5.01	0.32	
	Existing Layout - 2023 Baseline Flows							
Stream B-C	0.1	7.76	0.09	1.39	0.4	10.71	0.30	2.20
Stream B-A	0.1	19.70	0.11		0.3	24.14	0.23	
Stream C-AB	1.5	5.32	0.37		1.4	5.21	0.36	
	Existing Layout - 2023 with Dev. Flows							
Stream B-C	0.1	8.85	0.10	1.86	0.4	10.91	0.31	2.48
Stream B-A	0.3	22.16	0.26		0.4	27.20	0.31	
Stream C-AB	1.5	5.38	0.37		1.5	5.31	0.37	
	Existing Layout - 2028 Baseline Flows							
Stream B-C	0.1	7.93	0.09	1.51	0.5	11.15	0.32	2.34
Stream B-A	0.1	21.05	0.12		0.3	26.15	0.25	
Stream C-AB	1.7	5.51	0.40		1.6	5.35	0.38	
	Existing Layout - 2028 with Dev. Flows							
Stream B-C	0.1	9.07	0.10	2.00	0.5	11.42	0.33	2.65
Stream B-A	0.4	24.05	0.28		0.5	29.82	0.34	
Stream C-AB	1.7	5.59	0.40		1.7	5.47	0.39	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	A595 / Victoria Road (Sunny Hill Pub) priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		1.26	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	A595 Loop Rd North		Major
B	Victoria Rd		Minor
C	A595 Loop Rd South		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 - A595 Loop Rd South	7.90			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	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 - Victoria Rd	One lane plus flare	10.00	8.43	5.01	3.72	3.72	✓	2.00	32	34

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	523	0.087	0.221	0.139	0.315
1	B-C	739	0.104	0.263	-	-
1	C-B	661	0.235	0.235	-	-

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	2018 Surveyed Flows	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 - A595 Loop Rd North		ONE HOUR	✓	674	100.000
B - Victoria Rd		ONE HOUR	✓	58	100.000
C - A595 Loop Rd South		ONE HOUR	✓	816	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
	From			
	A - A595 Loop Rd North	0	22	652
	B - Victoria Rd	19	0	39
	C - A595 Loop Rd South	738	78	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
	From			
	A - A595 Loop Rd North	0	5	8
	B - Victoria Rd	0	0	3
	C - A595 Loop Rd South	4	0	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	0.08	7.54	0.1	A	36	54
B-A	0.09	17.95	0.1	C	17	26
C-AB	0.33	5.11	1.2	A	237	356
C-A					511	767
A-B					20	30
A-C					598	897

Main Results for each time segment

07:45 - 08:00

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	29	7	602	0.049	29	0.0	0.1	6.473	A
B-A	14	4	317	0.045	14	0.0	0.0	11.869	B
C-AB	146	36	930	0.157	144	0.0	0.4	4.690	A
C-A	468	117			468				
A-B	17	4			17				
A-C	491	123			491				

08:00 - 08:15

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	35	9	574	0.061	35	0.1	0.1	6.877	A
B-A	17	4	277	0.062	17	0.0	0.1	13.841	B
C-AB	214	53	992	0.215	213	0.4	0.6	4.750	A
C-A	520	130			520				
A-B	20	5			20				
A-C	586	147			586				

08:15 - 08:30

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	43	11	535	0.080	43	0.1	0.1	7.534	A
B-A	21	5	222	0.094	21	0.1	0.1	17.899	C
C-AB	350	88	1081	0.324	348	0.6	1.2	5.074	A
C-A	548	137			548				
A-B	24	6			24				
A-C	718	179			718				

08:30 - 08:45

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	43	11	535	0.080	43	0.1	0.1	7.537	A
B-A	21	5	221	0.094	21	0.1	0.1	17.955	C
C-AB	352	88	1082	0.325	352	1.2	1.2	5.114	A
C-A	547	137			547				
A-B	24	6			24				
A-C	718	179			718				

08:45 - 09:00

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	35	9	574	0.061	35	0.1	0.1	6.886	A
B-A	17	4	277	0.062	17	0.1	0.1	13.886	B
C-AB	215	54	993	0.216	217	1.2	0.7	4.806	A
C-A	519	130			519				
A-B	20	5			20				
A-C	586	147			586				

09:00 - 09:15

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	29	7	602	0.049	29	0.1	0.1	6.481	A
B-A	14	4	317	0.045	14	0.1	0.0	11.905	B
C-AB	147	37	931	0.158	148	0.7	0.4	4.731	A
C-A	467	117			467				
A-B	17	4			17				
A-C	491	123			491				

Existing Layout - 2018 Surveyed Flows , 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.00	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
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	710	100.000
B - Victoria Rd		ONE HOUR	✓	167	100.000
C - A595 Loop Rd South		ONE HOUR	✓	822	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	34	676
	B - Victoria Rd	39	0	128
	C - A595 Loop Rd South	748	74	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Victoria Rd	0	0	1
	C - A595 Loop Rd South	3	0	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	0.28	10.07	0.4	B	117	176
B-A	0.20	21.54	0.3	C	36	54
C-AB	0.32	5.01	1.2	A	232	347
C-A					523	784
A-B					31	47
A-C					620	930

Main Results for each time segment

16:00 - 16:15

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	96	24	578	0.167	96	0.0	0.2	7.520	A
B-A	29	7	307	0.096	29	0.0	0.1	12.907	B
C-AB	141	35	931	0.151	139	0.0	0.4	4.631	A
C-A	478	119			478				
A-B	26	6			26				
A-C	509	127			509				

16:15 - 16:30

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	115	29	547	0.210	115	0.2	0.3	8.400	A
B-A	35	9	267	0.131	35	0.1	0.1	15.503	C
C-AB	208	52	993	0.209	207	0.4	0.6	4.678	A
C-A	531	133			531				
A-B	31	8			31				
A-C	608	152			608				

16:30 - 16:45

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	141	35	502	0.281	140	0.3	0.4	10.035	B
B-A	43	11	210	0.204	43	0.1	0.2	21.396	C
C-AB	344	86	1084	0.317	341	0.6	1.2	4.975	A
C-A	561	140			561				
A-B	37	9			37				
A-C	744	186			744				

16:45 - 17:00

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	141	35	502	0.281	141	0.4	0.4	10.074	B
B-A	43	11	210	0.204	43	0.2	0.3	21.535	C
C-AB	345	86	1085	0.318	345	1.2	1.2	5.014	A
C-A	560	140			560				
A-B	37	9			37				
A-C	744	186			744				

17:00 - 17:15

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	115	29	547	0.210	116	0.4	0.3	8.437	A
B-A	35	9	266	0.132	35	0.3	0.2	15.622	C
C-AB	209	52	995	0.210	211	1.2	0.7	4.727	A
C-A	530	132			530				
A-B	31	8			31				
A-C	608	152			608				

17:15 - 17:30

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	96	24	578	0.167	97	0.3	0.2	7.562	A
B-A	29	7	307	0.096	30	0.2	0.1	12.982	B
C-AB	142	36	932	0.153	143	0.7	0.4	4.670	A
C-A	476	119			476				
A-B	26	6			26				
A-C	509	127			509				

Existing Layout - 2023 Baseline Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		1.39	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	2023 Baseline Flows	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 - A595 Loop Rd North		ONE HOUR	✓	711	100.000
B - Victoria Rd		ONE HOUR	✓	61	100.000
C - A595 Loop Rd South		ONE HOUR	✓	861	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	23	688
	B - Victoria Rd	20	0	41
	C - A595 Loop Rd South	779	82	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	5	8
	B - Victoria Rd	0	0	3
	C - A595 Loop Rd South	4	0	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	0.09	7.76	0.1	A	38	56
B-A	0.11	19.70	0.1	C	18	28
C-AB	0.37	5.32	1.5	A	270	405
C-A					520	780
A-B					21	32
A-C					631	947

Main Results for each time segment

07:45 - 08:00

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	31	8	594	0.052	31	0.0	0.1	6.576	A
B-A	15	4	306	0.049	15	0.0	0.1	12.357	B
C-AB	162	41	947	0.171	160	0.0	0.5	4.687	A
C-A	486	122			486				
A-B	17	4			17				
A-C	518	129			518				

08:00 - 08:15

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	37	9	565	0.065	37	0.1	0.1	7.024	A
B-A	18	4	264	0.068	18	0.1	0.1	14.650	B
C-AB	241	60	1013	0.238	240	0.5	0.7	4.788	A
C-A	533	133			533				
A-B	21	5			21				
A-C	618	155			618				

08:15 - 08:30

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	45	11	523	0.086	45	0.1	0.1	7.757	A
B-A	22	6	205	0.107	22	0.1	0.1	19.616	C
C-AB	404	101	1109	0.364	401	0.7	1.4	5.263	A
C-A	544	136			544				
A-B	25	6			25				
A-C	758	189			758				

08:30 - 08:45

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	45	11	523	0.086	45	0.1	0.1	7.764	A
B-A	22	6	205	0.108	22	0.1	0.1	19.697	C
C-AB	406	102	1111	0.366	406	1.4	1.5	5.320	A
C-A	542	135			542				
A-B	25	6			25				
A-C	758	189			758				

08:45 - 09:00

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	37	9	564	0.065	37	0.1	0.1	7.031	A
B-A	18	4	263	0.068	18	0.1	0.1	14.714	B
C-AB	243	61	1016	0.239	246	1.5	0.8	4.855	A
C-A	531	133			531				
A-B	21	5			21				
A-C	618	155			618				

09:00 - 09:15

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	31	8	594	0.052	31	0.1	0.1	6.588	A
B-A	15	4	305	0.049	15	0.1	0.1	12.402	B
C-AB	164	41	949	0.173	165	0.8	0.5	4.736	A
C-A	484	121			484				
A-B	17	4			17				
A-C	518	129			518				

Existing Layout - 2023 Baseline Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.20	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	746	100.000
B - Victoria Rd		ONE HOUR	✓	176	100.000
C - A595 Loop Rd South		ONE HOUR	✓	864	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	36	710
	B - Victoria Rd	41	0	135
	C - A595 Loop Rd South	786	78	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Victoria Rd	0	0	1
	C - A595 Loop Rd South	3	0	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	0.30	10.71	0.4	B	124	186
B-A	0.23	24.14	0.3	C	38	56
C-AB	0.36	5.21	1.4	A	263	394
C-A					530	795
A-B					33	50
A-C					652	977

Main Results for each time segment

16:00 - 16:15

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	102	25	570	0.178	101	0.0	0.2	7.728	A
B-A	31	8	297	0.104	30	0.0	0.1	13.490	B
C-AB	157	39	947	0.165	155	0.0	0.4	4.630	A
C-A	494	123			494				
A-B	27	7			27				
A-C	535	134			535				

16:15 - 16:30

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	121	30	538	0.226	121	0.2	0.3	8.722	A
B-A	37	9	254	0.145	37	0.1	0.2	16.545	C
C-AB	234	58	1013	0.231	233	0.4	0.7	4.716	A
C-A	543	136			543				
A-B	32	8			32				
A-C	638	160			638				

16:30 - 16:45

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	149	37	489	0.304	148	0.3	0.4	10.656	B
B-A	45	11	195	0.232	45	0.2	0.3	23.923	C
C-AB	396	99	1110	0.356	393	0.7	1.4	5.160	A
C-A	556	139			556				
A-B	40	10			40				
A-C	782	195			782				

16:45 - 17:00

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	149	37	488	0.304	149	0.4	0.4	10.707	B
B-A	45	11	194	0.232	45	0.3	0.3	24.142	C
C-AB	398	99	1112	0.358	398	1.4	1.4	5.207	A
C-A	554	138			554				
A-B	40	10			40				
A-C	782	195			782				

17:00 - 17:15

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	121	30	537	0.226	122	0.4	0.3	8.770	A
B-A	37	9	253	0.145	37	0.3	0.2	16.699	C
C-AB	236	59	1016	0.232	238	1.4	0.8	4.778	A
C-A	541	135			541				
A-B	32	8			32				
A-C	638	160			638				

17:15 - 17:30

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	102	25	570	0.178	102	0.3	0.2	7.773	A
B-A	31	8	296	0.104	31	0.2	0.1	13.585	B
C-AB	158	40	948	0.167	159	0.8	0.5	4.676	A
C-A	492	123			492				
A-B	27	7			27				
A-C	535	134			535				

Existing Layout - 2023 with Dev. Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		1.86	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	2023 with Dev. Flows	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 - A595 Loop Rd North		ONE HOUR	✓	722	100.000
B - Victoria Rd		ONE HOUR	✓	93	100.000
C - A595 Loop Rd South		ONE HOUR	✓	862	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	34	688
	B - Victoria Rd	51	0	42
	C - A595 Loop Rd South	779	83	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	5	8
	B - Victoria Rd	0	0	3
	C - A595 Loop Rd South	4	0	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	0.10	8.85	0.1	A	39	58
B-A	0.26	22.16	0.3	C	47	70
C-AB	0.37	5.38	1.5	A	274	412
C-A					517	775
A-B					31	47
A-C					631	947

Main Results for each time segment

07:45 - 08:00

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	544	0.058	31	0.0	0.1	7.231	A
B-A	38	10	328	0.117	38	0.0	0.1	12.404	B
C-AB	164	41	946	0.174	163	0.0	0.5	4.709	A
C-A	485	121			485				
A-B	26	6			26				
A-C	518	129			518				

08:00 - 08:15

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	38	9	513	0.074	38	0.1	0.1	7.805	A
B-A	46	11	282	0.163	46	0.1	0.2	15.220	C
C-AB	245	61	1012	0.242	244	0.5	0.7	4.820	A
C-A	530	133			530				
A-B	31	8			31				
A-C	618	155			618				

08:15 - 08:30

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	46	12	466	0.099	46	0.1	0.1	8.828	A
B-A	56	14	219	0.257	56	0.2	0.3	21.963	C
C-AB	411	103	1107	0.371	408	0.7	1.5	5.328	A
C-A	538	135			538				
A-B	37	9			37				
A-C	758	189			758				

08:30 - 08:45

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	46	12	465	0.099	46	0.1	0.1	8.850	A
B-A	56	14	219	0.257	56	0.3	0.3	22.156	C
C-AB	413	103	1109	0.373	413	1.5	1.5	5.384	A
C-A	536	134			536				
A-B	37	9			37				
A-C	758	189			758				

08:45 - 09:00

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	38	9	512	0.074	38	0.1	0.1	7.829	A
B-A	46	11	282	0.163	46	0.3	0.2	15.348	C
C-AB	247	62	1014	0.243	249	1.5	0.8	4.892	A
C-A	528	132			528				
A-B	31	8			31				
A-C	618	155			618				

09:00 - 09:15

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	32	8	543	0.058	32	0.1	0.1	7.255	A
B-A	38	10	327	0.117	39	0.2	0.1	12.486	B
C-AB	166	42	947	0.175	167	0.8	0.5	4.759	A
C-A	483	121			483				
A-B	26	6			26				
A-C	518	129			518				

Existing Layout - 2023 with Dev. Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.48	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	773	100.000
B - Victoria Rd		ONE HOUR	✓	191	100.000
C - A595 Loop Rd South		ONE HOUR	✓	865	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	63	710
	B - Victoria Rd	55	0	136
	C - A595 Loop Rd South	786	79	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Victoria Rd	0	0	1
	C - A595 Loop Rd South	3	0	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	0.31	10.91	0.4	B	125	187
B-A	0.31	27.20	0.4	D	50	76
C-AB	0.37	5.31	1.5	A	269	403
C-A					525	787
A-B					58	87
A-C					652	977

Main Results for each time segment

16:00 - 16:15

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	102	26	576	0.178	102	0.0	0.2	7.641	A
B-A	41	10	298	0.139	41	0.0	0.2	13.990	B
C-AB	160	40	944	0.169	158	0.0	0.5	4.667	A
C-A	492	123			492				
A-B	47	12			47				
A-C	535	134			535				

16:15 - 16:30

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	122	31	540	0.226	122	0.2	0.3	8.686	A
B-A	49	12	254	0.195	49	0.2	0.2	17.558	C
C-AB	239	60	1010	0.237	238	0.5	0.7	4.770	A
C-A	539	135			539				
A-B	57	14			57				
A-C	638	160			638				

16:30 - 16:45

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	150	37	484	0.309	149	0.3	0.4	10.840	B
B-A	61	15	193	0.313	60	0.2	0.4	26.805	D
C-AB	405	101	1106	0.366	402	0.7	1.5	5.257	A
C-A	547	137			547				
A-B	69	17			69				
A-C	782	195			782				

16:45 - 17:00

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	150	37	483	0.310	150	0.4	0.4	10.908	B
B-A	61	15	193	0.314	61	0.4	0.4	27.196	D
C-AB	408	102	1108	0.368	408	1.5	1.5	5.313	A
C-A	545	136			545				
A-B	69	17			69				
A-C	782	195			782				

17:00 - 17:15

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	122	31	539	0.227	123	0.4	0.3	8.745	A
B-A	49	12	253	0.195	50	0.4	0.2	17.800	C
C-AB	241	60	1012	0.238	244	1.5	0.8	4.833	A
C-A	537	134			537				
A-B	57	14			57				
A-C	638	160			638				

17:15 - 17:30

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	102	26	576	0.178	103	0.3	0.2	7.693	A
B-A	41	10	297	0.139	42	0.2	0.2	14.122	B
C-AB	161	40	945	0.171	162	0.8	0.5	4.714	A
C-A	490	122			490				
A-B	47	12			47				
A-C	535	134			535				

Existing Layout - 2028 Baseline Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		1.51	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
D7	2028 Baseline Flows	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 - A595 Loop Rd North		ONE HOUR	✓	735	100.000
B - Victoria Rd		ONE HOUR	✓	63	100.000
C - A595 Loop Rd South		ONE HOUR	✓	890	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	24	711
	B - Victoria Rd	21	0	42
	C - A595 Loop Rd South	805	85	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	5	8
	B - Victoria Rd	0	0	3
	C - A595 Loop Rd South	4	0	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	0.09	7.93	0.1	A	39	58
B-A	0.12	21.05	0.1	C	19	29
C-AB	0.40	5.51	1.7	A	295	442
C-A					522	783
A-B					22	33
A-C					652	979

Main Results for each time segment

07:45 - 08:00

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	588	0.054	31	0.0	0.1	6.652	A
B-A	16	4	299	0.053	16	0.0	0.1	12.698	B
C-AB	174	44	958	0.182	172	0.0	0.5	4.696	A
C-A	496	124			496				
A-B	18	5			18				
A-C	535	134			535				

08:00 - 08:15

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	38	9	558	0.068	38	0.1	0.1	7.127	A
B-A	19	5	255	0.074	19	0.1	0.1	15.233	C
C-AB	261	65	1027	0.254	260	0.5	0.8	4.834	A
C-A	539	135			539				
A-B	22	5			22				
A-C	639	160			639				

08:15 - 08:30

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	46	12	514	0.090	46	0.1	0.1	7.918	A
B-A	23	6	195	0.119	23	0.1	0.1	20.943	C
C-AB	445	111	1127	0.395	442	0.8	1.7	5.442	A
C-A	535	134			535				
A-B	26	7			26				
A-C	783	196			783				

08:30 - 08:45

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	46	12	514	0.090	46	0.1	0.1	7.926	A
B-A	23	6	194	0.119	23	0.1	0.1	21.053	C
C-AB	448	112	1129	0.397	448	1.7	1.7	5.513	A
C-A	532	133			532				
A-B	26	7			26				
A-C	783	196			783				

08:45 - 09:00

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	38	9	558	0.068	38	0.1	0.1	7.138	A
B-A	19	5	254	0.074	19	0.1	0.1	15.318	C
C-AB	264	66	1030	0.256	267	1.7	0.9	4.910	A
C-A	536	134			536				
A-B	22	5			22				
A-C	639	160			639				

09:00 - 09:15

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	32	8	588	0.054	32	0.1	0.1	6.664	A
B-A	16	4	298	0.053	16	0.1	0.1	12.751	B
C-AB	176	44	960	0.183	177	0.9	0.5	4.747	A
C-A	494	123			494				
A-B	18	5			18				
A-C	535	134			535				

Existing Layout - 2028 Baseline Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.34	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	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	770	100.000
B - Victoria Rd		ONE HOUR	✓	181	100.000
C - A595 Loop Rd South		ONE HOUR	✓	891	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	37	733
	B - Victoria Rd	42	0	139
	C - A595 Loop Rd South	811	80	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Victoria Rd	0	0	1
	C - A595 Loop Rd South	3	0	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	0.32	11.15	0.5	B	128	191
B-A	0.25	26.15	0.3	D	39	58
C-AB	0.38	5.35	1.6	A	284	425
C-A					534	801
A-B					34	51
A-C					673	1009

Main Results for each time segment

16:00 - 16:15

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	105	26	565	0.185	104	0.0	0.2	7.863	A
B-A	32	8	290	0.109	31	0.0	0.1	13.889	B
C-AB	166	42	957	0.174	164	0.0	0.5	4.628	A
C-A	504	126			504				
A-B	28	7			28				
A-C	552	138			552				

16:15 - 16:30

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	125	31	531	0.235	125	0.2	0.3	8.937	A
B-A	38	9	246	0.154	38	0.1	0.2	17.277	C
C-AB	251	63	1026	0.244	250	0.5	0.8	4.742	A
C-A	550	138			550				
A-B	33	8			33				
A-C	659	165			659				

16:30 - 16:45

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	153	38	480	0.319	152	0.3	0.5	11.086	B
B-A	46	12	184	0.251	46	0.2	0.3	25.860	D
C-AB	430	108	1127	0.382	427	0.8	1.6	5.291	A
C-A	551	138			551				
A-B	41	10			41				
A-C	807	202			807				

16:45 - 17:00

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	153	38	479	0.320	153	0.5	0.5	11.153	B
B-A	46	12	184	0.252	46	0.3	0.3	26.153	D
C-AB	433	108	1129	0.383	433	1.6	1.6	5.350	A
C-A	548	137			548				
A-B	41	10			41				
A-C	807	202			807				

17:00 - 17:15

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	125	31	530	0.236	126	0.5	0.3	8.993	A
B-A	38	9	245	0.154	38	0.3	0.2	17.468	C
C-AB	253	63	1029	0.246	256	1.6	0.8	4.808	A
C-A	548	137			548				
A-B	33	8			33				
A-C	659	165			659				

17:15 - 17:30

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	105	26	565	0.185	105	0.3	0.2	7.914	A
B-A	32	8	289	0.109	32	0.2	0.1	13.993	B
C-AB	168	42	959	0.175	169	0.8	0.5	4.676	A
C-A	503	126			503				
A-B	28	7			28				
A-C	552	138			552				

Existing Layout - 2028 with Dev. Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.00	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
D9	2028 with Dev. Flows	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 - A595 Loop Rd North		ONE HOUR	✓	746	100.000
B - Victoria Rd		ONE HOUR	✓	95	100.000
C - A595 Loop Rd South		ONE HOUR	✓	891	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	35	711
	B - Victoria Rd	52	0	43
	C - A595 Loop Rd South	805	86	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	5	8
	B - Victoria Rd	0	0	3
	C - A595 Loop Rd South	4	0	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	0.10	9.07	0.1	A	39	59
B-A	0.28	24.05	0.4	C	48	72
C-AB	0.40	5.59	1.7	A	299	449
C-A					518	777
A-B					32	48
A-C					652	979

Main Results for each time segment

07:45 - 08:00

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	539	0.060	32	0.0	0.1	7.309	A
B-A	39	10	320	0.123	39	0.0	0.1	12.789	B
C-AB	177	44	957	0.185	175	0.0	0.5	4.720	A
C-A	494	124			494				
A-B	26	7			26				
A-C	535	134			535				

08:00 - 08:15

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	39	10	507	0.076	39	0.1	0.1	7.920	A
B-A	47	12	272	0.172	46	0.1	0.2	15.918	C
C-AB	265	66	1026	0.259	264	0.5	0.8	4.868	A
C-A	536	134			536				
A-B	31	8			31				
A-C	639	160			639				

08:15 - 08:30

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	47	12	457	0.104	47	0.1	0.1	9.040	A
B-A	57	14	207	0.276	57	0.2	0.4	23.786	C
C-AB	453	113	1126	0.402	449	0.8	1.7	5.514	A
C-A	528	132			528				
A-B	39	10			39				
A-C	783	196			783				

08:30 - 08:45

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	47	12	456	0.104	47	0.1	0.1	9.068	A
B-A	57	14	207	0.277	57	0.4	0.4	24.051	C
C-AB	455	114	1128	0.404	455	1.7	1.7	5.586	A
C-A	526	131			526				
A-B	39	10			39				
A-C	783	196			783				

08:45 - 09:00

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	39	10	505	0.076	39	0.1	0.1	7.950	A
B-A	47	12	272	0.172	47	0.4	0.2	16.083	C
C-AB	268	67	1029	0.260	271	1.7	0.9	4.947	A
C-A	533	133			533				
A-B	31	8			31				
A-C	639	160			639				

09:00 - 09:15

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	32	8	538	0.060	32	0.1	0.1	7.334	A
B-A	39	10	319	0.123	39	0.2	0.1	12.879	B
C-AB	179	45	959	0.186	180	0.9	0.5	4.771	A
C-A	492	123			492				
A-B	26	7			26				
A-C	535	134			535				

Existing Layout - 2028 with Dev. Flows, 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	A595/Victoria Rd (Sunny Hill Pub) priority junction	T-Junction	Two-way		2.65	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 Loop Rd North		ONE HOUR	✓	797	100.000
B - Victoria Rd		ONE HOUR	✓	196	100.000
C - A595 Loop Rd South		ONE HOUR	✓	892	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	64	733
	B - Victoria Rd	56	0	140
	C - A595 Loop Rd South	811	81	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - A595 Loop Rd North	B - Victoria Rd	C - A595 Loop Rd South
From	A - A595 Loop Rd North	0	0	2
	B - Victoria Rd	0	0	1
	C - A595 Loop Rd South	3	0	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	0.33	11.42	0.5	B	128	193
B-A	0.34	29.82	0.5	D	51	77
C-AB	0.39	5.47	1.7	A	290	435
C-A					528	793
A-B					59	88
A-C					673	1009

Main Results for each time segment

16:00 - 16:15

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	105	26	571	0.185	104	0.0	0.2	7.775	A
B-A	42	11	290	0.145	41	0.0	0.2	14.425	B
C-AB	169	42	954	0.178	167	0.0	0.5	4.665	A
C-A	502	126			502				
A-B	48	12			48				
A-C	552	138			552				

16:15 - 16:30

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	126	31	533	0.236	126	0.2	0.3	8.905	A
B-A	50	13	245	0.205	50	0.2	0.3	18.392	C
C-AB	256	64	1023	0.250	255	0.5	0.8	4.796	A
C-A	546	136			546				
A-B	58	14			58				
A-C	659	165			659				

16:30 - 16:45

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	154	39	474	0.326	153	0.3	0.5	11.333	B
B-A	62	15	183	0.337	61	0.3	0.5	29.270	D
C-AB	441	110	1124	0.393	438	0.8	1.7	5.402	A
C-A	541	135			541				
A-B	70	18			70				
A-C	807	202			807				

16:45 - 17:00

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	154	39	472	0.326	154	0.5	0.5	11.425	B
B-A	62	15	182	0.338	62	0.5	0.5	29.817	D
C-AB	444	111	1126	0.394	444	1.7	1.7	5.466	A
C-A	538	135			538				
A-B	70	18			70				
A-C	807	202			807				

17:00 - 17:15

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	126	31	532	0.236	127	0.5	0.3	8.977	A
B-A	50	13	245	0.206	51	0.5	0.3	18.696	C
C-AB	258	65	1026	0.252	262	1.7	0.9	4.866	A
C-A	544	136			544				
A-B	58	14			58				
A-C	659	165			659				

17:15 - 17:30

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	105	26	570	0.185	106	0.3	0.2	7.830	A
B-A	42	11	290	0.145	43	0.3	0.2	14.573	B
C-AB	171	43	956	0.179	173	0.9	0.5	4.713	A
C-A	500	125			500				
A-B	48	12			48				
A-C	552	138			552				



Appendix Q – JUNCTIONS 9 Output (J12)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: J12.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J12 Moresby Rd_Unnamed Rd Pri

Report generation date: 22/10/2018 11:51:06

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-AC	0.5	14.92	0.34	1.89	1.1	22.72	0.53	3.16
Stream C-AB	0.1	5.40	0.04		0.1	4.49	0.04	
	Existing Layout - 2023 Baseline Flows							
Stream B-AC	0.6	17.03	0.39	2.10	1.4	28.07	0.60	3.90
Stream C-AB	0.1	5.40	0.04		0.1	4.41	0.05	
	Existing Layout - 2023 with Dev. Flows							
Stream B-AC	0.7	17.88	0.40	2.12	1.6	30.20	0.62	4.07
Stream C-AB	0.1	5.40	0.05		0.1	4.35	0.05	
	Existing Layout - 2028 Baseline Flows							
Stream B-AC	0.7	17.93	0.41	2.21	1.7	31.14	0.63	4.32
Stream C-AB	0.1	5.39	0.04		0.1	4.37	0.05	
	Existing Layout - 2028 with Dev. Flows							
Stream B-AC	0.7	18.88	0.42	2.23	1.8	33.85	0.65	4.57
Stream C-AB	0.1	5.38	0.05		0.1	4.31	0.05	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Moresby Road / Unnamed Road priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		1.89	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Moresby Rd (N)		Major
B	Unnamed Rd		Minor
C	Moresby Rd (S)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Moresby Rd (S)	6.84			90.0	✓	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 - Unnamed Rd	One lane	3.20	21	49

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	519	0.091	0.230	0.145	0.329
1	B-C	668	0.099	0.249	-	-
1	C-B	626	0.234	0.234	-	-

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	2018 Surveyed Flows	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 - Moresby Rd (N)		ONE HOUR	✓	548	100.000
B - Unnamed Rd		ONE HOUR	✓	115	100.000
C - Moresby Rd (S)		ONE HOUR	✓	309	100.000

Origin-Destination Data

Demand (PCU/hr)

From	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
A - Moresby Rd (N)		0	62	486
B - Unnamed Rd		87	0	28
C - Moresby Rd (S)		295	14	0

Vehicle Mix

Heavy Vehicle Percentages

From	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
A - Moresby Rd (N)		0	0	3
B - Unnamed Rd		1	0	0
C - Moresby Rd (S)		2	0	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-AC	0.34	14.92	0.5	B	106	158
C-AB	0.04	5.40	0.1	A	21	32
C-A					262	393
A-B					57	85
A-C					446	669

Main Results for each time segment

07:45 - 08:00

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-AC	87	22	427	0.203	86	0.0	0.3	10.599	B
C-AB	16	4	686	0.023	15	0.0	0.0	5.400	A
C-A	217	54			217				
A-B	47	12			47				
A-C	366	91			366				

08:00 - 08:15

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-AC	103	26	403	0.257	103	0.3	0.3	12.080	B
C-AB	20	5	701	0.029	20	0.0	0.0	5.326	A
C-A	257	64			257				
A-B	56	14			56				
A-C	437	109			437				

08:15 - 08:30

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-AC	127	32	370	0.343	126	0.3	0.5	14.837	B
C-AB	28	7	722	0.039	28	0.0	0.1	5.227	A
C-A	312	78			312				
A-B	68	17			68				
A-C	535	134			535				

08:30 - 08:45

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-AC	127	32	370	0.343	127	0.5	0.5	14.921	B
C-AB	28	7	722	0.039	28	0.1	0.1	5.233	A
C-A	312	78			312				
A-B	68	17			68				
A-C	535	134			535				

08:45 - 09:00

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-AC	103	26	403	0.257	104	0.5	0.4	12.165	B
C-AB	20	5	701	0.029	20	0.1	0.0	5.336	A
C-A	257	64			257				
A-B	56	14			56				
A-C	437	109			437				

09:00 - 09:15

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-AC	87	22	427	0.203	87	0.4	0.3	10.686	B
C-AB	16	4	686	0.023	16	0.0	0.0	5.405	A
C-A	217	54			217				
A-B	47	12			47				
A-C	366	91			366				

Existing Layout - 2018 Surveyed Flows , 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		3.16	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	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Rd (N)		ONE HOUR	✓	487	100.000
B - Unnamed Rd		ONE HOUR	✓	161	100.000
C - Moresby Rd (S)		ONE HOUR	✓	549	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	88	399
	B - Unnamed Rd	142	0	19
	C - Moresby Rd (S)	537	12	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	1	2
	B - Unnamed Rd	0	0	0
	C - Moresby Rd (S)	1	0	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-AC	0.53	22.72	1.1	C	148	222
C-AB	0.04	4.49	0.1	A	26	39
C-A					478	716
A-B					81	121
A-C					366	549

Main Results for each time segment

16:00 - 16:15

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-AC	121	30	398	0.304	119	0.0	0.4	12.832	B
C-AB	18	4	823	0.022	18	0.0	0.0	4.490	A
C-A	396	99			396				
A-B	66	17			66				
A-C	300	75			300				

16:15 - 16:30

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-AC	145	36	372	0.389	144	0.4	0.6	15.731	C
C-AB	24	6	866	0.028	24	0.0	0.0	4.299	A
C-A	469	117			469				
A-B	79	20			79				
A-C	359	90			359				

16:30 - 16:45

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-AC	177	44	335	0.529	175	0.6	1.1	22.260	C
C-AB	37	9	928	0.039	36	0.0	0.1	4.064	A
C-A	568	142			568				
A-B	97	24			97				
A-C	439	110			439				

16:45 - 17:00

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-AC	177	44	335	0.529	177	1.1	1.1	22.718	C
C-AB	37	9	928	0.039	37	0.1	0.1	4.067	A
C-A	568	142			568				
A-B	97	24			97				
A-C	439	110			439				

17:00 - 17:15

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-AC	145	36	372	0.389	146	1.1	0.7	16.086	C
C-AB	24	6	866	0.028	25	0.1	0.0	4.305	A
C-A	469	117			469				
A-B	79	20			79				
A-C	359	90			359				

17:15 - 17:30

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-AC	121	30	398	0.304	122	0.7	0.4	13.069	B
C-AB	18	4	823	0.022	18	0.0	0.0	4.493	A
C-A	396	99			396				
A-B	66	17			66				
A-C	300	75			300				

Existing Layout - 2023 Baseline Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		2.10	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	2023 Baseline Flows	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 - Moresby Rd (N)		ONE HOUR	✓	614	100.000
B - Unnamed Rd		ONE HOUR	✓	124	100.000
C - Moresby Rd (S)		ONE HOUR	✓	334	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	69	545
	B - Unnamed Rd	94	0	30
	C - Moresby Rd (S)	319	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	0	3
	B - Unnamed Rd	1	0	0
	C - Moresby Rd (S)	2	0	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-AC	0.39	17.03	0.6	C	114	171
C-AB	0.04	5.40	0.1	A	24	36
C-A					282	424
A-B					63	95
A-C					500	750

Main Results for each time segment

07:45 - 08:00

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-AC	93	23	413	0.226	92	0.0	0.3	11.266	B
C-AB	17	4	689	0.025	17	0.0	0.0	5.395	A
C-A	234	59			234				
A-B	52	13			52				
A-C	410	103			410				

08:00 - 08:15

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-AC	111	28	386	0.289	111	0.3	0.4	13.152	B
C-AB	23	6	705	0.032	23	0.0	0.0	5.318	A
C-A	277	69			277				
A-B	62	16			62				
A-C	490	122			490				

08:15 - 08:30

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-AC	137	34	349	0.391	136	0.4	0.6	16.896	C
C-AB	32	8	728	0.044	32	0.0	0.1	5.218	A
C-A	336	84			336				
A-B	76	19			76				
A-C	600	150			600				

08:30 - 08:45

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-AC	137	34	349	0.391	136	0.6	0.6	17.034	C
C-AB	32	8	728	0.044	32	0.1	0.1	5.222	A
C-A	336	84			336				
A-B	76	19			76				
A-C	600	150			600				

08:45 - 09:00

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-AC	111	28	386	0.289	112	0.6	0.4	13.281	B
C-AB	23	6	705	0.032	23	0.1	0.0	5.328	A
C-A	277	69			277				
A-B	62	16			62				
A-C	490	122			490				

09:00 - 09:15

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-AC	93	23	413	0.226	94	0.4	0.3	11.381	B
C-AB	17	4	689	0.025	17	0.0	0.0	5.402	A
C-A	234	59			234				
A-B	52	13			52				
A-C	410	103			410				

Existing Layout - 2023 Baseline Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		3.90	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Rd (N)		ONE HOUR	✓	523	100.000
B - Unnamed Rd		ONE HOUR	✓	174	100.000
C - Moresby Rd (S)		ONE HOUR	✓	595	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	94	429
	B - Unnamed Rd	154	0	20
	C - Moresby Rd (S)	582	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	1	2
	B - Unnamed Rd	0	0	0
	C - Moresby Rd (S)	1	0	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-AC	0.60	28.07	1.4	D	160	239
C-AB	0.05	4.41	0.1	A	31	46
C-A					515	773
A-B					86	129
A-C					394	590

Main Results for each time segment

16:00 - 16:15

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-AC	131	33	387	0.338	129	0.0	0.5	13.837	B
C-AB	20	5	842	0.024	20	0.0	0.0	4.402	A
C-A	428	107			428				
A-B	71	18			71				
A-C	323	81			323				

16:15 - 16:30

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-AC	156	39	359	0.436	155	0.5	0.7	17.614	C
C-AB	28	7	889	0.032	28	0.0	0.0	4.204	A
C-A	506	127			506				
A-B	85	21			85				
A-C	386	96			386				

16:30 - 16:45

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-AC	192	48	319	0.600	189	0.7	1.4	27.112	D
C-AB	43	11	957	0.045	43	0.0	0.1	3.963	A
C-A	612	153			612				
A-B	103	26			103				
A-C	472	118			472				

16:45 - 17:00

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-AC	192	48	319	0.600	191	1.4	1.4	28.075	D
C-AB	43	11	957	0.045	43	0.1	0.1	3.967	A
C-A	612	153			612				
A-B	103	26			103				
A-C	472	118			472				

17:00 - 17:15

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-AC	156	39	359	0.436	159	1.4	0.8	18.249	C
C-AB	29	7	889	0.032	29	0.1	0.0	4.209	A
C-A	506	127			506				
A-B	85	21			85				
A-C	386	96			386				

17:15 - 17:30

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-AC	131	33	387	0.338	132	0.8	0.5	14.169	B
C-AB	20	5	842	0.024	21	0.0	0.0	4.405	A
C-A	427	107			427				
A-B	71	18			71				
A-C	323	81			323				

Existing Layout - 2023 with Dev. Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		2.12	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	2023 with Dev. Flows	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 - Moresby Rd (N)		ONE HOUR	✓	647	100.000
B - Unnamed Rd		ONE HOUR	✓	124	100.000
C - Moresby Rd (S)		ONE HOUR	✓	345	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	71	576
	B - Unnamed Rd	94	0	30
	C - Moresby Rd (S)	330	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	0	3
	B - Unnamed Rd	1	0	0
	C - Moresby Rd (S)	2	0	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-AC	0.40	17.88	0.7	C	114	171
C-AB	0.05	5.40	0.1	A	25	37
C-A					292	438
A-B					65	98
A-C					529	793

Main Results for each time segment

07:45 - 08:00

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-AC	93	23	406	0.230	92	0.0	0.3	11.507	B
C-AB	18	4	690	0.026	18	0.0	0.0	5.392	A
C-A	242	61			242				
A-B	53	13			53				
A-C	434	108			434				

08:00 - 08:15

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-AC	111	28	378	0.295	111	0.3	0.4	13.546	B
C-AB	23	6	706	0.033	23	0.0	0.0	5.313	A
C-A	287	72			287				
A-B	64	16			64				
A-C	518	129			518				

08:15 - 08:30

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-AC	137	34	339	0.402	136	0.4	0.7	17.711	C
C-AB	33	8	730	0.045	33	0.0	0.1	5.210	A
C-A	347	87			347				
A-B	78	20			78				
A-C	634	159			634				

08:30 - 08:45

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-AC	137	34	339	0.402	136	0.7	0.7	17.879	C
C-AB	33	8	730	0.045	33	0.1	0.1	5.217	A
C-A	347	87			347				
A-B	78	20			78				
A-C	634	159			634				

08:45 - 09:00

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-AC	111	28	378	0.295	112	0.7	0.4	13.695	B
C-AB	23	6	706	0.033	23	0.1	0.0	5.325	A
C-A	287	72			287				
A-B	64	16			64				
A-C	518	129			518				

09:00 - 09:15

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-AC	93	23	406	0.230	94	0.4	0.3	11.630	B
C-AB	18	4	690	0.026	18	0.0	0.0	5.399	A
C-A	242	61			242				
A-B	53	13			53				
A-C	434	108			434				

Existing Layout - 2023 with Dev. Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		4.07	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Rd (N)		ONE HOUR	✓	538	100.000
B - Unnamed Rd		ONE HOUR	✓	175	100.000
C - Moresby Rd (S)		ONE HOUR	✓	622	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	95	443
	B - Unnamed Rd	155	0	20
	C - Moresby Rd (S)	609	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	1	2
	B - Unnamed Rd	0	0	0
	C - Moresby Rd (S)	1	0	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-AC	0.62	30.20	1.6	D	161	241
C-AB	0.05	4.35	0.1	A	32	48
C-A					539	808
A-B					87	131
A-C					407	610

Main Results for each time segment

16:00 - 16:15

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-AC	132	33	382	0.345	130	0.0	0.5	14.167	B
C-AB	21	5	855	0.025	21	0.0	0.0	4.342	A
C-A	447	112			447				
A-B	72	18			72				
A-C	334	83			334				

16:15 - 16:30

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-AC	157	39	352	0.447	156	0.5	0.8	18.267	C
C-AB	30	7	905	0.033	30	0.0	0.0	4.138	A
C-A	529	132			529				
A-B	85	21			85				
A-C	398	100			398				

16:30 - 16:45

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-AC	193	48	311	0.619	190	0.8	1.5	28.987	D
C-AB	46	11	977	0.047	46	0.0	0.1	3.892	A
C-A	639	160			639				
A-B	105	26			105				
A-C	488	122			488				

16:45 - 17:00

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-AC	193	48	311	0.619	192	1.5	1.6	30.205	D
C-AB	46	11	977	0.047	46	0.1	0.1	3.894	A
C-A	639	160			639				
A-B	105	26			105				
A-C	488	122			488				

17:00 - 17:15

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-AC	157	39	352	0.447	160	1.6	0.8	19.021	C
C-AB	30	7	905	0.033	30	0.1	0.0	4.144	A
C-A	529	132			529				
A-B	85	21			85				
A-C	398	100			398				

17:15 - 17:30

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-AC	132	33	382	0.345	133	0.8	0.5	14.537	B
C-AB	21	5	855	0.025	21	0.0	0.0	4.346	A
C-A	447	112			447				
A-B	72	18			72				
A-C	334	83			334				

Existing Layout - 2028 Baseline Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		2.21	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	2028 Baseline Flows	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 - Moresby Rd (N)		ONE HOUR	✓	634	100.000
B - Unnamed Rd		ONE HOUR	✓	128	100.000
C - Moresby Rd (S)		ONE HOUR	✓	344	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	72	562
	B - Unnamed Rd	97	0	31
	C - Moresby Rd (S)	329	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	0	3
	B - Unnamed Rd	1	0	0
	C - Moresby Rd (S)	2	0	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-AC	0.41	17.93	0.7	C	117	176
C-AB	0.04	5.39	0.1	A	25	37
C-A					291	437
A-B					66	99
A-C					516	774

Main Results for each time segment

07:45 - 08:00

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-AC	96	24	409	0.236	95	0.0	0.3	11.519	B
C-AB	18	4	691	0.025	17	0.0	0.0	5.380	A
C-A	241	60			241				
A-B	54	14			54				
A-C	423	106			423				

08:00 - 08:15

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-AC	115	29	381	0.302	115	0.3	0.4	13.570	B
C-AB	23	6	708	0.033	23	0.0	0.0	5.300	A
C-A	286	72			286				
A-B	65	16			65				
A-C	505	126			505				

08:15 - 08:30

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-AC	141	35	343	0.411	140	0.4	0.7	17.759	C
C-AB	33	8	732	0.045	33	0.0	0.1	5.195	A
C-A	346	86			346				
A-B	79	20			79				
A-C	619	155			619				

08:30 - 08:45

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-AC	141	35	343	0.411	141	0.7	0.7	17.926	C
C-AB	33	8	732	0.045	33	0.1	0.1	5.201	A
C-A	346	86			346				
A-B	79	20			79				
A-C	619	155			619				

08:45 - 09:00

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-AC	115	29	381	0.302	116	0.7	0.4	13.723	B
C-AB	23	6	708	0.033	23	0.1	0.0	5.309	A
C-A	286	71			286				
A-B	65	16			65				
A-C	505	126			505				

09:00 - 09:15

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-AC	96	24	409	0.236	97	0.4	0.3	11.650	B
C-AB	18	4	691	0.026	18	0.0	0.0	5.387	A
C-A	241	60			241				
A-B	54	14			54				
A-C	423	106			423				

Existing Layout - 2028 Baseline Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		4.32	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	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Rd (N)		ONE HOUR	✓	539	100.000
B - Unnamed Rd		ONE HOUR	✓	180	100.000
C - Moresby Rd (S)		ONE HOUR	✓	613	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	97	442
	B - Unnamed Rd	159	0	21
	C - Moresby Rd (S)	600	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	1	2
	B - Unnamed Rd	0	0	0
	C - Moresby Rd (S)	1	0	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-AC	0.63	31.14	1.7	D	165	248
C-AB	0.05	4.37	0.1	A	32	48
C-A					531	796
A-B					89	134
A-C					406	608

Main Results for each time segment

16:00 - 16:15

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-AC	136	34	383	0.354	133	0.0	0.5	14.298	B
C-AB	21	5	850	0.025	21	0.0	0.0	4.366	A
C-A	441	110			441				
A-B	73	18			73				
A-C	333	83			333				

16:15 - 16:30

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-AC	162	40	354	0.457	161	0.5	0.8	18.534	C
C-AB	29	7	899	0.033	29	0.0	0.0	4.164	A
C-A	522	130			522				
A-B	87	22			87				
A-C	397	99			397				

16:30 - 16:45

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-AC	198	50	313	0.633	195	0.8	1.6	29.779	D
C-AB	45	11	969	0.047	45	0.0	0.1	3.920	A
C-A	630	157			630				
A-B	107	27			107				
A-C	487	122			487				

16:45 - 17:00

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-AC	198	50	313	0.633	198	1.6	1.7	31.143	D
C-AB	45	11	969	0.047	45	0.1	0.1	3.922	A
C-A	630	157			630				
A-B	107	27			107				
A-C	487	122			487				

17:00 - 17:15

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-AC	162	40	354	0.457	165	1.7	0.9	19.365	C
C-AB	29	7	899	0.033	29	0.1	0.0	4.169	A
C-A	522	130			522				
A-B	87	22			87				
A-C	397	99			397				

17:15 - 17:30

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-AC	136	34	383	0.354	137	0.9	0.6	14.686	B
C-AB	21	5	850	0.025	21	0.0	0.0	4.371	A
C-A	441	110			441				
A-B	73	18			73				
A-C	333	83			333				

Existing Layout - 2028 with Dev. Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		2.23	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
D9	2028 with Dev. Flows	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 - Moresby Rd (N)		ONE HOUR	✓	667	100.000
B - Unnamed Rd		ONE HOUR	✓	128	100.000
C - Moresby Rd (S)		ONE HOUR	✓	355	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	73	594
	B - Unnamed Rd	97	0	31
	C - Moresby Rd (S)	340	15	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	0	3
	B - Unnamed Rd	1	0	0
	C - Moresby Rd (S)	2	0	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-AC	0.42	18.88	0.7	C	117	176
C-AB	0.05	5.38	0.1	A	25	38
C-A					301	451
A-B					67	100
A-C					545	818

Main Results for each time segment

07:45 - 08:00

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-AC	96	24	402	0.240	95	0.0	0.3	11.776	B
C-AB	18	4	692	0.026	18	0.0	0.0	5.376	A
C-A	249	62			249				
A-B	55	14			55				
A-C	447	112			447				

08:00 - 08:15

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-AC	115	29	373	0.308	115	0.3	0.4	14.001	B
C-AB	24	6	709	0.034	24	0.0	0.0	5.294	A
C-A	295	74			295				
A-B	66	16			66				
A-C	534	133			534				

08:15 - 08:30

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-AC	141	35	333	0.423	140	0.4	0.7	18.675	C
C-AB	34	8	734	0.046	34	0.0	0.1	5.187	A
C-A	357	89			357				
A-B	80	20			80				
A-C	654	164			654				

08:30 - 08:45

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-AC	141	35	333	0.423	141	0.7	0.7	18.875	C
C-AB	34	8	734	0.046	34	0.1	0.1	5.191	A
C-A	357	89			357				
A-B	80	20			80				
A-C	654	164			654				

08:45 - 09:00

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-AC	115	29	373	0.308	116	0.7	0.5	14.174	B
C-AB	24	6	709	0.034	24	0.1	0.0	5.304	A
C-A	295	74			295				
A-B	66	16			66				
A-C	534	133			534				

09:00 - 09:15

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-AC	96	24	402	0.240	97	0.5	0.3	11.915	B
C-AB	18	4	692	0.026	18	0.0	0.0	5.383	A
C-A	249	62			249				
A-B	55	14			55				
A-C	447	112			447				

Existing Layout - 2028 with Dev. Flows, 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	Moresby Rd/Unnamed Rd priority junction	T-Junction	Two-way		4.57	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Moresby Rd (N)		ONE HOUR	✓	555	100.000
B - Unnamed Rd		ONE HOUR	✓	181	100.000
C - Moresby Rd (S)		ONE HOUR	✓	640	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	98	457
	B - Unnamed Rd	160	0	21
	C - Moresby Rd (S)	627	13	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Moresby Rd (N)	B - Unnamed Rd	C - Moresby Rd (S)
From	A - Moresby Rd (N)	0	1	2
	B - Unnamed Rd	0	0	0
	C - Moresby Rd (S)	1	0	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-AC	0.65	33.85	1.8	D	166	249
C-AB	0.05	4.31	0.1	A	33	50
C-A					554	831
A-B					90	135
A-C					419	629

Main Results for each time segment

16:00 - 16:15

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-AC	136	34	377	0.361	134	0.0	0.6	14.663	B
C-AB	22	5	862	0.025	22	0.0	0.0	4.307	A
C-A	460	115			460				
A-B	74	18			74				
A-C	344	86			344				

16:15 - 16:30

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-AC	163	41	347	0.469	162	0.6	0.9	19.281	C
C-AB	31	8	914	0.034	31	0.0	0.0	4.100	A
C-A	545	136			545				
A-B	88	22			88				
A-C	411	103			411				

16:30 - 16:45

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-AC	199	50	305	0.654	196	0.9	1.7	32.093	D
C-AB	48	12	988	0.048	48	0.0	0.1	3.852	A
C-A	657	164			657				
A-B	108	27			108				
A-C	503	126			503				

16:45 - 17:00

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-AC	199	50	305	0.654	199	1.7	1.8	33.849	D
C-AB	48	12	988	0.048	48	0.1	0.1	3.854	A
C-A	657	164			657				
A-B	108	27			108				
A-C	503	126			503				

17:00 - 17:15

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-AC	163	41	347	0.469	166	1.8	0.9	20.284	C
C-AB	31	8	914	0.034	31	0.1	0.0	4.105	A
C-A	545	136			545				
A-B	88	22			88				
A-C	411	103			411				

17:15 - 17:30

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-AC	136	34	377	0.361	138	0.9	0.6	15.095	C
C-AB	22	5	862	0.025	22	0.0	0.0	4.310	A
C-A	460	115			460				
A-B	74	18			74				
A-C	344	86			344				



Appendix R – JUNCTIONS 9 Output (J13)

Junctions 9			
ARCADY 9 - Roundabout Module			
Version: 9.5.0.6896 © Copyright TRL Limited, 2018			
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Filename: J13.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J13 B5295_Main St Mini

Report generation date: 22/10/2018 11:52:23

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
1 - B5295 Ribton Moor Side	1.5	9.17	0.60	12.64	1.3	8.59	0.56	9.13
2 - B5295 Main St	2.5	22.83	0.72		1.4	14.28	0.58	
3 - B5295 Egremont Road	0.4	4.83	0.25		0.6	5.31	0.36	
	Existing Layout - 2023 Baseline Flows							
1 - B5295 Ribton Moor Side	1.9	10.50	0.65	15.53	1.5	9.37	0.60	10.16
2 - B5295 Main St	3.4	29.84	0.78		1.7	16.45	0.63	
3 - B5295 Egremont Road	0.4	5.04	0.27		0.6	5.60	0.39	
	Existing Layout - 2023 with Dev. Flows							
1 - B5295 Ribton Moor Side	3.0	14.45	0.75	21.12	1.8	10.56	0.64	13.70
2 - B5295 Main St	5.0	41.47	0.85		3.0	25.03	0.76	
3 - B5295 Egremont Road	0.4	5.23	0.28		0.7	6.24	0.42	
	Existing Layout - 2028 Baseline Flows							
1 - B5295 Ribton Moor Side	2.1	11.22	0.67	18.03	1.6	9.90	0.62	10.85
2 - B5295 Main St	4.3	36.51	0.82		1.9	17.95	0.65	
3 - B5295 Egremont Road	0.4	5.16	0.28		0.7	5.77	0.40	
	Existing Layout - 2028 with Dev. Flows							
1 - B5295 Ribton Moor Side	3.3	15.84	0.77	25.41	2.0	11.24	0.66	15.08
2 - B5295 Main St	6.6	52.96	0.89		3.5	28.55	0.79	
3 - B5295 Egremont Road	0.4	5.35	0.29		0.8	6.45	0.43	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	B5295/Main Street Mini-roundabout
Site number	
Date	16/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	12.64	B

Junction Network Options

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

Arms

Arms

Arm	Name	Description
1	B5295 Ribton Moor Side	
2	B5295 Main St	
3	B5295 Egremont 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 - B5295 Ribton Moor Side	4.00	3.67	5.79	2.2	11.91	8.37	0.0	
2 - B5295 Main St	3.00	3.00	6.80	2.6	10.34	7.35	0.0	
3 - B5295 Egremont Road	3.34	3.34	4.47	12.2	18.20	18.61	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - B5295 Ribton Moor Side	0.636	1032
2 - B5295 Main St	0.616	813
3 - B5295 Egremont Road	0.788	1300

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	2018 Surveyed Flows	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 - B5295 Ribton Moor Side		ONE HOUR	✓	552	100.000
2 - B5295 Main St		ONE HOUR	✓	371	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	191	356
	2 - B5295 Main St	293	0	78
	3 - B5295 Egremont Road	207	32	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	25	3	2
	2 - B5295 Main St	2	0	3
	3 - B5295 Egremont Road	4	7	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 - B5295 Ribton Moor Side	0.60	9.17	1.5	A	507	760
2 - B5295 Main St	0.72	22.83	2.5	C	340	511
3 - B5295 Egremont Road	0.25	4.83	0.4	A	219	329

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 - B5295 Ribton Moor Side	416	104	24	1017	0.409	413	377	0.0	0.7	6.080	A
2 - B5295 Main St	279	70	270	647	0.432	276	167	0.0	0.8	9.854	A
3 - B5295 Egremont Road	180	45	222	1125	0.160	179	324	0.0	0.2	3.970	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 - B5295 Ribton Moor Side	496	124	29	1014	0.489	495	452	0.7	1.0	7.098	A
2 - B5295 Main St	334	83	324	614	0.544	332	200	0.8	1.2	12.983	B
3 - B5295 Egremont Road	215	54	267	1090	0.197	215	389	0.2	0.3	4.293	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 - B5295 Ribton Moor Side	608	152	35	1010	0.602	606	552	1.0	1.5	9.078	A
2 - B5295 Main St	408	102	396	569	0.718	404	245	1.2	2.4	21.609	C
3 - B5295 Egremont Road	263	66	324	1044	0.252	263	475	0.3	0.3	4.806	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 - B5295 Ribton Moor Side	608	152	35	1010	0.602	608	556	1.5	1.5	9.171	A
2 - B5295 Main St	408	102	397	568	0.719	408	246	2.4	2.5	22.830	C
3 - B5295 Egremont Road	263	66	328	1042	0.253	263	478	0.3	0.4	4.827	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 - B5295 Ribton Moor Side	496	124	29	1014	0.489	498	458	1.5	1.0	7.186	A
2 - B5295 Main St	334	83	326	612	0.545	338	201	2.5	1.3	13.671	B
3 - B5295 Egremont Road	215	54	272	1086	0.198	215	393	0.4	0.3	4.318	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 - B5295 Ribton Moor Side	416	104	24	1017	0.409	417	382	1.0	0.7	6.159	A
2 - B5295 Main St	279	70	273	645	0.433	281	168	1.3	0.8	10.160	B
3 - B5295 Egremont Road	180	45	226	1122	0.160	180	328	0.3	0.2	3.992	A

Existing Layout - 2018 Surveyed Flows , PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	9.13	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)	Run automatically
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Ribton Moor Side		ONE HOUR	✓	494	100.000
2 - B5295 Main St		ONE HOUR	✓	318	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	359	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	5	193	296
	2 - B5295 Main St	233	0	85
	3 - B5295 Egremont Road	266	92	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	0	1	1
	2 - B5295 Main St	1	0	7
	3 - B5295 Egremont Road	2	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 - B5295 Ribton Moor Side	0.56	8.59	1.3	A	453	680
2 - B5295 Main St	0.58	14.28	1.4	B	292	438
3 - B5295 Egremont Road	0.36	5.31	0.6	A	329	494

Main Results for each time segment

16:00 - 16:15

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 - B5295 Ribton Moor Side	372	93	70	988	0.376	369	377	0.0	0.6	5.857	A
2 - B5295 Main St	239	60	226	674	0.355	237	213	0.0	0.6	8.412	A
3 - B5295 Egremont Road	270	68	178	1160	0.233	269	286	0.0	0.3	4.155	A

16:15 - 16:30

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 - B5295 Ribton Moor Side	444	111	84	979	0.454	443	452	0.6	0.8	6.772	A
2 - B5295 Main St	286	71	271	646	0.442	285	256	0.6	0.8	10.193	B
3 - B5295 Egremont Road	323	81	213	1132	0.285	322	343	0.3	0.4	4.578	A

16:30 - 16:45

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 - B5295 Ribton Moor Side	544	136	102	967	0.562	542	553	0.8	1.3	8.514	A
2 - B5295 Main St	350	88	331	609	0.575	348	313	0.8	1.3	14.029	B
3 - B5295 Egremont Road	395	99	260	1095	0.361	395	419	0.4	0.6	5.292	A

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 - B5295 Ribton Moor Side	544	136	102	967	0.562	544	555	1.3	1.3	8.585	A
2 - B5295 Main St	350	88	332	608	0.576	350	314	1.3	1.4	14.282	B
3 - B5295 Egremont Road	395	99	262	1093	0.361	395	421	0.6	0.6	5.309	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 - B5295 Ribton Moor Side	444	111	84	979	0.454	446	455	1.3	0.8	6.840	A
2 - B5295 Main St	286	71	273	645	0.443	288	257	1.4	0.8	10.399	B
3 - B5295 Egremont Road	323	81	216	1130	0.286	323	345	0.6	0.4	4.599	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 - B5295 Ribton Moor Side	372	93	70	988	0.377	373	380	0.8	0.6	5.923	A
2 - B5295 Main St	239	60	228	673	0.356	240	215	0.8	0.6	8.562	A
3 - B5295 Egremont Road	270	68	180	1158	0.233	271	288	0.4	0.3	4.181	A

Existing Layout - 2023 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	15.53	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)	Run automatically
D3	2023 Baseline Flows	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 - B5295 Ribton Moor Side		ONE HOUR	✓	597	100.000
2 - B5295 Main St		ONE HOUR	✓	395	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	253	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	217	375
	2 - B5295 Main St	313	0	82
	3 - B5295 Egremont Road	219	34	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	25	3	2
	2 - B5295 Main St	2	0	3
	3 - B5295 Egremont Road	4	7	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 - B5295 Ribton Moor Side	0.65	10.50	1.9	B	548	822
2 - B5295 Main St	0.78	29.84	3.4	D	362	544
3 - B5295 Egremont Road	0.27	5.04	0.4	A	232	348

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 - B5295 Ribton Moor Side	449	112	25	1016	0.442	446	401	0.0	0.8	6.441	A
2 - B5295 Main St	297	74	284	638	0.466	294	188	0.0	0.9	10.589	B
3 - B5295 Egremont Road	190	48	237	1113	0.171	190	341	0.0	0.2	4.065	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 - B5295 Ribton Moor Side	537	134	31	1013	0.530	535	481	0.8	1.1	7.706	A
2 - B5295 Main St	355	89	341	603	0.589	353	225	0.9	1.4	14.580	B
3 - B5295 Egremont Road	227	57	284	1076	0.211	227	410	0.2	0.3	4.427	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 - B5295 Ribton Moor Side	657	164	37	1009	0.652	654	585	1.1	1.9	10.335	B
2 - B5295 Main St	435	109	417	556	0.782	428	275	1.4	3.2	27.128	D
3 - B5295 Egremont Road	279	70	344	1029	0.271	278	500	0.3	0.4	5.006	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 - B5295 Ribton Moor Side	657	164	37	1008	0.652	657	591	1.9	1.9	10.496	B
2 - B5295 Main St	435	109	418	555	0.783	434	276	3.2	3.4	29.843	D
3 - B5295 Egremont Road	279	70	349	1024	0.272	279	503	0.4	0.4	5.037	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 - B5295 Ribton Moor Side	537	134	31	1013	0.530	540	489	1.9	1.2	7.845	A
2 - B5295 Main St	355	89	343	601	0.590	363	227	3.4	1.5	15.864	C
3 - B5295 Egremont Road	227	57	292	1070	0.213	228	414	0.4	0.3	4.465	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 - B5295 Ribton Moor Side	449	112	26	1016	0.442	451	406	1.2	0.8	6.549	A
2 - B5295 Main St	297	74	287	636	0.467	300	190	1.5	0.9	11.018	B
3 - B5295 Egremont Road	190	48	241	1110	0.172	191	345	0.3	0.2	4.090	A

Existing Layout - 2023 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	10.16	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Ribton Moor Side		ONE HOUR	✓	523	100.000
2 - B5295 Main St		ONE HOUR	✓	340	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	378	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	207	311
	2 - B5295 Main St	251	0	89
	3 - B5295 Egremont Road	280	97	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	0	1	1
	2 - B5295 Main St	1	0	7
	3 - B5295 Egremont Road	2	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 - B5295 Ribton Moor Side	0.60	9.37	1.5	A	480	720
2 - B5295 Main St	0.63	16.45	1.7	C	312	468
3 - B5295 Egremont Road	0.39	5.60	0.6	A	347	520

Main Results for each time segment

16:00 - 16:15

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 - B5295 Ribton Moor Side	394	98	73	986	0.400	391	401	0.0	0.7	6.089	A
2 - B5295 Main St	256	64	237	667	0.384	253	227	0.0	0.6	8.873	A
3 - B5295 Egremont Road	285	71	191	1149	0.248	283	300	0.0	0.3	4.274	A

16:15 - 16:30

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 - B5295 Ribton Moor Side	470	118	88	976	0.482	469	481	0.7	0.9	7.153	A
2 - B5295 Main St	306	76	284	638	0.479	304	273	0.6	0.9	11.030	B
3 - B5295 Egremont Road	340	85	229	1119	0.304	339	360	0.3	0.4	4.752	A

16:30 - 16:45

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 - B5295 Ribton Moor Side	576	144	108	964	0.597	574	587	0.9	1.5	9.266	A
2 - B5295 Main St	374	94	348	599	0.625	371	334	0.9	1.6	16.029	C
3 - B5295 Egremont Road	416	104	280	1079	0.386	415	439	0.4	0.6	5.576	A

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 - B5295 Ribton Moor Side	576	144	108	964	0.598	576	590	1.5	1.5	9.368	A
2 - B5295 Main St	374	94	349	598	0.626	374	335	1.6	1.7	16.454	C
3 - B5295 Egremont Road	416	104	282	1078	0.386	416	441	0.6	0.6	5.602	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 - B5295 Ribton Moor Side	470	118	88	976	0.482	472	485	1.5	1.0	7.244	A
2 - B5295 Main St	306	76	286	637	0.480	308	274	1.7	1.0	11.340	B
3 - B5295 Egremont Road	340	85	232	1117	0.304	341	362	0.6	0.5	4.782	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 - B5295 Ribton Moor Side	394	98	74	985	0.400	395	405	1.0	0.7	6.170	A
2 - B5295 Main St	256	64	239	666	0.385	257	229	1.0	0.7	9.065	A
3 - B5295 Egremont Road	285	71	194	1147	0.248	285	303	0.5	0.3	4.302	A

Existing Layout - 2023 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	21.12	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)	Run automatically
D5	2023 with Dev. Flows	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 - B5295 Ribton Moor Side		ONE HOUR	✓	685	100.000
2 - B5295 Main St		ONE HOUR	✓	424	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	256	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	296	384
	2 - B5295 Main St	342	0	82
	3 - B5295 Egremont Road	222	34	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	25	3	2
	2 - B5295 Main St	2	0	3
	3 - B5295 Egremont Road	4	7	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 - B5295 Ribton Moor Side	0.75	14.45	3.0	B	629	943
2 - B5295 Main St	0.85	41.47	5.0	E	389	584
3 - B5295 Egremont Road	0.28	5.23	0.4	A	235	352

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 - B5295 Ribton Moor Side	516	129	25	1016	0.508	512	424	0.0	1.0	7.260	A
2 - B5295 Main St	319	80	290	634	0.503	315	247	0.0	1.0	11.399	B
3 - B5295 Egremont Road	193	48	258	1097	0.176	192	348	0.0	0.2	4.150	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 - B5295 Ribton Moor Side	616	154	31	1013	0.608	614	509	1.0	1.6	9.202	A
2 - B5295 Main St	381	95	349	598	0.637	378	296	1.0	1.7	16.509	C
3 - B5295 Egremont Road	230	58	310	1056	0.218	230	417	0.2	0.3	4.549	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 - B5295 Ribton Moor Side	754	189	37	1009	0.748	749	617	1.6	2.9	13.936	B
2 - B5295 Main St	467	117	425	551	0.847	456	361	1.7	4.5	34.973	D
3 - B5295 Egremont Road	282	70	373	1006	0.280	281	508	0.3	0.4	5.182	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 - B5295 Ribton Moor Side	754	189	37	1008	0.748	754	625	2.9	3.0	14.452	B
2 - B5295 Main St	467	117	428	549	0.850	465	363	4.5	5.0	41.471	E
3 - B5295 Egremont Road	282	70	380	1000	0.282	282	513	0.4	0.4	5.231	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 - B5295 Ribton Moor Side	616	154	31	1013	0.608	621	522	3.0	1.6	9.550	A
2 - B5295 Main St	381	95	353	596	0.640	394	299	5.0	1.9	19.204	C
3 - B5295 Egremont Road	230	58	322	1046	0.220	231	424	0.4	0.3	4.612	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 - B5295 Ribton Moor Side	516	129	26	1016	0.508	518	431	1.6	1.1	7.445	A
2 - B5295 Main St	319	80	294	632	0.505	323	249	1.9	1.1	12.020	B
3 - B5295 Egremont Road	193	48	264	1092	0.177	193	353	0.3	0.2	4.181	A

Existing Layout - 2023 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	13.70	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Ribton Moor Side		ONE HOUR	✓	563	100.000
2 - B5295 Main St		ONE HOUR	✓	409	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	385	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	5	243	315
	2 - B5295 Main St	320	0	89
	3 - B5295 Egremont Road	287	97	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	0	1	1
	2 - B5295 Main St	1	0	7
	3 - B5295 Egremont Road	2	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 - B5295 Ribton Moor Side	0.64	10.56	1.8	B	517	775
2 - B5295 Main St	0.76	25.03	3.0	D	375	563
3 - B5295 Egremont Road	0.42	6.24	0.7	A	353	530

Main Results for each time segment

16:00 - 16:15

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 - B5295 Ribton Moor Side	424	106	73	986	0.430	421	457	0.0	0.8	6.405	A
2 - B5295 Main St	308	77	240	665	0.463	304	254	0.0	0.9	10.111	B
3 - B5295 Egremont Road	290	72	242	1109	0.261	288	302	0.0	0.4	4.509	A

16:15 - 16:30

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 - B5295 Ribton Moor Side	506	127	88	976	0.518	505	548	0.8	1.1	7.693	A
2 - B5295 Main St	368	92	288	636	0.578	366	305	0.9	1.4	13.533	B
3 - B5295 Egremont Road	346	87	291	1071	0.323	346	363	0.4	0.5	5.108	A

16:30 - 16:45

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 - B5295 Ribton Moor Side	620	155	108	964	0.643	617	668	1.1	1.8	10.400	B
2 - B5295 Main St	450	113	352	596	0.755	444	373	1.4	2.9	23.320	C
3 - B5295 Egremont Road	424	106	353	1022	0.415	423	443	0.5	0.7	6.181	A

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 - B5295 Ribton Moor Side	620	155	108	964	0.643	620	673	1.8	1.8	10.562	B
2 - B5295 Main St	450	113	353	595	0.756	450	374	2.9	3.0	25.030	D
3 - B5295 Egremont Road	424	106	357	1018	0.416	424	446	0.7	0.7	6.236	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 - B5295 Ribton Moor Side	506	127	88	976	0.519	509	556	1.8	1.1	7.826	A
2 - B5295 Main St	368	92	290	634	0.580	374	307	3.0	1.5	14.452	B
3 - B5295 Egremont Road	346	87	297	1066	0.325	347	367	0.7	0.5	5.163	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 - B5295 Ribton Moor Side	424	106	74	985	0.430	425	463	1.1	0.8	6.506	A
2 - B5295 Main St	308	77	242	664	0.464	310	257	1.5	0.9	10.476	B
3 - B5295 Egremont Road	290	72	246	1106	0.262	290	306	0.5	0.4	4.551	A

Existing Layout - 2028 Baseline Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	18.03	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)	Run automatically
D7	2028 Baseline Flows	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 - B5295 Ribton Moor Side		ONE HOUR	✓	617	100.000
2 - B5295 Main St		ONE HOUR	✓	409	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	261	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	5	224	388
	2 - B5295 Main St	324	0	85
	3 - B5295 Egremont Road	226	35	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	25	3	2
	2 - B5295 Main St	2	0	3
	3 - B5295 Egremont Road	4	7	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 - B5295 Ribton Moor Side	0.67	11.22	2.1	B	566	849
2 - B5295 Main St	0.82	36.51	4.3	E	375	563
3 - B5295 Egremont Road	0.28	5.16	0.4	A	239	359

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 - B5295 Ribton Moor Side	465	116	26	1016	0.457	461	414	0.0	0.9	6.617	A
2 - B5295 Main St	308	77	294	632	0.487	304	194	0.0	0.9	11.097	B
3 - B5295 Egremont Road	196	49	245	1107	0.177	196	353	0.0	0.2	4.118	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 - B5295 Ribton Moor Side	555	139	31	1012	0.548	553	497	0.9	1.2	8.012	A
2 - B5295 Main St	368	92	352	596	0.617	365	232	0.9	1.6	15.765	C
3 - B5295 Egremont Road	235	59	294	1068	0.220	234	424	0.2	0.3	4.505	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 - B5295 Ribton Moor Side	679	170	38	1008	0.674	676	603	1.2	2.0	11.010	B
2 - B5295 Main St	450	113	431	548	0.822	441	284	1.6	4.0	31.865	D
3 - B5295 Egremont Road	287	72	355	1020	0.282	287	517	0.3	0.4	5.120	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 - B5295 Ribton Moor Side	679	170	39	1008	0.674	679	610	2.0	2.1	11.217	B
2 - B5295 Main St	450	113	433	547	0.824	449	285	4.0	4.3	36.511	E
3 - B5295 Egremont Road	287	72	361	1015	0.283	287	520	0.4	0.4	5.162	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 - B5295 Ribton Moor Side	555	139	32	1012	0.548	558	507	2.1	1.3	8.182	A
2 - B5295 Main St	368	92	355	594	0.619	378	234	4.3	1.7	17.754	C
3 - B5295 Egremont Road	235	59	304	1060	0.221	235	429	0.4	0.3	4.555	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 - B5295 Ribton Moor Side	465	116	26	1016	0.457	466	420	1.3	0.9	6.735	A
2 - B5295 Main St	308	77	297	630	0.489	311	196	1.7	1.0	11.629	B
3 - B5295 Egremont Road	196	49	250	1103	0.178	197	358	0.3	0.2	4.148	A

Existing Layout - 2028 Baseline Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	10.85	B

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Ribton Moor Side		ONE HOUR	✓	540	100.000
2 - B5295 Main St		ONE HOUR	✓	351	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	389	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	5	214	321
	2 - B5295 Main St	259	0	92
	3 - B5295 Egremont Road	288	100	1

Vehicle Mix

Heavy Vehicle Percentages

		To		
From		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
	1 - B5295 Ribton Moor Side	0	1	1
	2 - B5295 Main St	1	0	7
	3 - B5295 Egremont Road	2	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 - B5295 Ribton Moor Side	0.62	9.90	1.6	A	496	743
2 - B5295 Main St	0.65	17.95	1.9	C	322	483
3 - B5295 Egremont Road	0.40	5.77	0.7	A	357	535

Main Results for each time segment

16:00 - 16:15

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 - B5295 Ribton Moor Side	407	102	76	984	0.413	404	413	0.0	0.7	6.234	A
2 - B5295 Main St	264	66	244	662	0.399	262	235	0.0	0.7	9.149	A
3 - B5295 Egremont Road	293	73	197	1145	0.256	291	309	0.0	0.4	4.338	A

16:15 - 16:30

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 - B5295 Ribton Moor Side	485	121	91	975	0.498	484	495	0.7	1.0	7.396	A
2 - B5295 Main St	316	79	293	632	0.499	314	282	0.7	1.0	11.552	B
3 - B5295 Egremont Road	350	87	236	1114	0.314	349	371	0.4	0.5	4.847	A

16:30 - 16:45

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 - B5295 Ribton Moor Side	595	149	111	962	0.618	592	605	1.0	1.6	9.772	A
2 - B5295 Main St	386	97	359	592	0.653	383	345	1.0	1.8	17.376	C
3 - B5295 Egremont Road	428	107	288	1073	0.399	427	454	0.5	0.7	5.739	A

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 - B5295 Ribton Moor Side	595	149	111	962	0.618	594	608	1.6	1.6	9.897	A
2 - B5295 Main St	386	97	360	591	0.654	386	346	1.8	1.9	17.952	C
3 - B5295 Egremont Road	428	107	291	1071	0.400	428	456	0.7	0.7	5.768	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 - B5295 Ribton Moor Side	485	121	91	974	0.498	488	499	1.6	1.0	7.507	A
2 - B5295 Main St	316	79	295	631	0.500	319	283	1.9	1.1	11.944	B
3 - B5295 Egremont Road	350	87	240	1111	0.315	351	374	0.7	0.5	4.881	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 - B5295 Ribton Moor Side	407	102	76	984	0.413	408	417	1.0	0.7	6.323	A
2 - B5295 Main St	264	66	247	661	0.400	266	237	1.1	0.7	9.372	A
3 - B5295 Egremont Road	293	73	200	1142	0.256	293	313	0.5	0.4	4.370	A

Existing Layout - 2028 with Dev. Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	25.41	D

Junction Network Options

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

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2028 with Dev. Flows	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 - B5295 Ribton Moor Side		ONE HOUR	✓	705	100.000
2 - B5295 Main St		ONE HOUR	✓	437	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	264	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	303	397
	2 - B5295 Main St	352	0	85
	3 - B5295 Egremont Road	229	35	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	25	3	2
	2 - B5295 Main St	2	0	3
	3 - B5295 Egremont Road	4	7	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 - B5295 Ribton Moor Side	0.77	15.84	3.3	C	647	970
2 - B5295 Main St	0.89	52.96	6.6	F	401	601
3 - B5295 Egremont Road	0.29	5.35	0.4	A	242	363

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 - B5295 Ribton Moor Side	531	133	26	1016	0.523	526	437	0.0	1.1	7.480	A
2 - B5295 Main St	329	82	300	628	0.524	325	252	0.0	1.1	11.959	B
3 - B5295 Egremont Road	199	50	265	1091	0.182	198	360	0.0	0.2	4.203	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 - B5295 Ribton Moor Side	634	158	31	1012	0.626	632	524	1.1	1.7	9.635	A
2 - B5295 Main St	393	98	360	591	0.665	390	303	1.1	1.9	17.946	C
3 - B5295 Egremont Road	237	59	318	1049	0.226	237	431	0.2	0.3	4.627	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 - B5295 Ribton Moor Side	776	194	38	1008	0.770	770	633	1.7	3.2	15.136	C
2 - B5295 Main St	481	120	439	543	0.887	466	369	1.9	5.7	41.708	E
3 - B5295 Egremont Road	291	73	381	1000	0.291	290	524	0.3	0.4	5.293	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 - B5295 Ribton Moor Side	776	194	39	1008	0.770	776	642	3.2	3.3	15.838	C
2 - B5295 Main St	481	120	442	541	0.890	478	372	5.7	6.6	52.962	F
3 - B5295 Egremont Road	291	73	390	992	0.293	291	530	0.4	0.4	5.354	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 - B5295 Ribton Moor Side	634	158	32	1012	0.626	640	541	3.3	1.8	10.078	B
2 - B5295 Main St	393	98	365	588	0.668	410	307	6.6	2.2	22.446	C
3 - B5295 Egremont Road	237	59	335	1036	0.229	238	440	0.4	0.3	4.711	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 - B5295 Ribton Moor Side	531	133	26	1016	0.523	533	445	1.8	1.1	7.696	A
2 - B5295 Main St	329	82	304	626	0.526	333	256	2.2	1.2	12.738	B
3 - B5295 Egremont Road	199	50	272	1085	0.183	199	365	0.3	0.2	4.242	A

Existing Layout - 2028 with Dev. Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	B5295/Main St Mini-rdt	Mini-roundabout		1, 2, 3	15.08	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)	Run automatically
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - B5295 Ribton Moor Side		ONE HOUR	✓	580	100.000
2 - B5295 Main St		ONE HOUR	✓	420	100.000
3 - B5295 Egremont Road		ONE HOUR	✓	397	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	5	250	325
	2 - B5295 Main St	328	0	92
	3 - B5295 Egremont Road	296	100	1

Vehicle Mix

Heavy Vehicle Percentages

	To			
		1 - B5295 Ribton Moor Side	2 - B5295 Main St	3 - B5295 Egremont Road
From	1 - B5295 Ribton Moor Side	0	1	1
	2 - B5295 Main St	1	0	7
	3 - B5295 Egremont Road	2	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 - B5295 Ribton Moor Side	0.66	11.24	2.0	B	532	798
2 - B5295 Main St	0.79	28.55	3.5	D	385	578
3 - B5295 Egremont Road	0.43	6.45	0.8	A	364	546

Main Results for each time segment

16:00 - 16:15

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 - B5295 Ribton Moor Side	437	109	76	984	0.444	433	470	0.0	0.8	6.564	A
2 - B5295 Main St	316	79	247	661	0.479	313	262	0.0	0.9	10.471	B
3 - B5295 Egremont Road	299	75	248	1105	0.271	297	312	0.0	0.4	4.584	A

16:15 - 16:30

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 - B5295 Ribton Moor Side	521	130	91	975	0.535	520	563	0.8	1.1	7.973	A
2 - B5295 Main St	378	94	297	630	0.599	375	314	0.9	1.5	14.315	B
3 - B5295 Egremont Road	357	89	298	1065	0.335	356	375	0.4	0.5	5.225	A

16:30 - 16:45

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 - B5295 Ribton Moor Side	639	160	111	962	0.664	635	686	1.1	1.9	11.033	B
2 - B5295 Main St	462	116	363	590	0.784	455	384	1.5	3.3	26.041	D
3 - B5295 Egremont Road	437	109	361	1015	0.430	436	457	0.5	0.8	6.386	A

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 - B5295 Ribton Moor Side	639	160	111	962	0.664	638	692	1.9	2.0	11.238	B
2 - B5295 Main St	462	116	364	589	0.786	462	385	3.3	3.5	28.545	D
3 - B5295 Egremont Road	437	109	366	1011	0.432	437	460	0.8	0.8	6.453	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 - B5295 Ribton Moor Side	521	130	91	974	0.535	525	572	2.0	1.2	8.136	A
2 - B5295 Main St	378	94	299	629	0.601	385	316	3.5	1.6	15.558	C
3 - B5295 Egremont Road	357	89	305	1059	0.337	358	379	0.8	0.5	5.292	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 - B5295 Ribton Moor Side	437	109	76	984	0.444	438	476	1.2	0.8	6.679	A
2 - B5295 Main St	316	79	250	659	0.480	319	264	1.6	1.0	10.900	B
3 - B5295 Egremont Road	299	75	253	1101	0.272	299	316	0.5	0.4	4.629	A



Appendix S – JUNCTIONS 9 Output (J15)

Junctions 9			
PICADY 9 - Priority Intersection Module			
Version: 9.5.0.6896			
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Filename: J15.j9

Path: J:\2017\A090070 - 270 and 410 - Harras Road, Harras Moor, Whitehaven\Jun. Ass\J15 Solway View_Oakbank Rd_Park View Pri

Report generation date: 22/10/2018 11:53:57

- »Existing Layout - 2018 Surveyed Flows , AM
- »Existing Layout - 2018 Surveyed Flows , PM
- »Existing Layout - 2023 Baseline Flows, AM
- »Existing Layout - 2023 Baseline Flows, PM
- »Existing Layout - 2023 with Dev. Flows, AM
- »Existing Layout - 2023 with Dev. Flows, PM
- »Existing Layout - 2028 Baseline Flows, AM
- »Existing Layout - 2028 Baseline Flows, PM
- »Existing Layout - 2028 with Dev. Flows, AM
- »Existing Layout - 2028 with Dev. Flows, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)	Queue (PCU)	Delay (s)	RFC	Junction Delay (s)
	Existing Layout - 2018 Surveyed Flows							
Stream B-C	0.3	6.90	0.24	3.81	0.2	5.99	0.16	3.67
Stream B-A	0.0	9.60	0.01		0.0	8.51	0.02	
Stream C-AB	0.2	7.21	0.14		0.6	7.30	0.31	
	Existing Layout - 2023 Baseline Flows							
Stream B-C	0.4	7.32	0.29	4.17	0.2	6.23	0.19	4.45
Stream B-A	0.0	9.78	0.01		0.0	8.91	0.02	
Stream C-AB	0.2	7.40	0.16		0.8	8.22	0.39	
	Existing Layout - 2023 with Dev. Flows							
Stream B-C	0.5	7.81	0.31	4.79	0.2	6.45	0.20	4.77
Stream B-A	0.1	10.67	0.09		0.1	9.47	0.07	
Stream C-AB	0.2	7.54	0.17		0.9	8.75	0.42	
	Existing Layout - 2028 Baseline Flows							
Stream B-C	0.4	7.45	0.30	4.22	0.2	6.30	0.19	4.55
Stream B-A	0.0	9.84	0.01		0.0	9.03	0.03	
Stream C-AB	0.2	7.45	0.16		0.9	8.36	0.40	
	Existing Layout - 2028 with Dev. Flows							
Stream B-C	0.5	7.93	0.32	4.83	0.3	6.50	0.21	4.87
Stream B-A	0.1	10.75	0.09		0.1	9.59	0.07	
Stream C-AB	0.2	7.59	0.17		1.0	8.92	0.44	

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

File summary

File Description

Title	(untitled)
Location	Solway View/Oakbank Road/Park View priority junction
Site number	
Date	14/02/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	WYGlyujing.liu
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	2018 Surveyed Flows	AM	ONE HOUR	07:45	09:15	15	✓
D2	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	15	✓
D3	2023 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D4	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D5	2023 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D6	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓
D7	2028 Baseline Flows	AM	ONE HOUR	07:45	09:15	15	✓
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	15	✓
D9	2028 with Dev. Flows	AM	ONE HOUR	07:45	09:15	15	✓
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

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

Existing Layout - 2018 Surveyed Flows , 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		3.81	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Oakbank Rd		Major
B	Park View		Minor
C	Solway View		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 - Solway View	6.35			35.7	✓	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	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 - Park View	One lane plus flare	10.00	10.00	8.55	5.89	2.20	✓	2.00	57	53

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	554	0.099	0.251	0.158	0.359
1	B-C	752	0.114	0.287	-	-
1	C-B	595	0.227	0.227	-	-

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	2018 Surveyed Flows	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 - Oakbank Rd		ONE HOUR	✓	167	100.000
B - Park View		ONE HOUR	✓	160	100.000
C - Solway View		ONE HOUR	✓	100	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	1	166
	B - Park View	5	0	155
	C - Solway View	33	67	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	25	0	1
	C - Solway View	0	0	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	0.24	6.90	0.3	A	142	213
B-A	0.01	9.60	0.0	A	5	7
C-AB	0.14	7.21	0.2	A	65	97
C-A					27	40
A-B					0.92	1
A-C					152	228

Main Results for each time segment

07:45 - 08:00

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	117	29	715	0.163	116	0.0	0.2	6.064	A
B-A	4	0.94	500	0.008	4	0.0	0.0	9.061	A
C-AB	53	13	583	0.090	52	0.0	0.1	6.777	A
C-A	23	6			23				
A-B	0.75	0.19			0.75				
A-C	125	31			125				

08:00 - 08:15

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	139	35	708	0.197	139	0.2	0.2	6.396	A
B-A	4	1	489	0.009	4	0.0	0.0	9.278	A
C-AB	63	16	581	0.109	63	0.1	0.1	6.955	A
C-A	26	7			26				
A-B	0.90	0.22			0.90				
A-C	149	37			149				

08:15 - 08:30

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	171	43	697	0.245	170	0.2	0.3	6.893	A
B-A	6	1	474	0.012	5	0.0	0.0	9.603	A
C-AB	79	20	578	0.136	79	0.1	0.2	7.205	A
C-A	31	8			31				
A-B	1	0.28			1				
A-C	183	46			183				

08:30 - 08:45

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	171	43	697	0.245	171	0.3	0.3	6.901	A
B-A	6	1	474	0.012	6	0.0	0.0	9.604	A
C-AB	79	20	578	0.136	79	0.2	0.2	7.208	A
C-A	31	8			31				
A-B	1	0.28			1				
A-C	183	46			183				

08:45 - 09:00

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	139	35	707	0.197	140	0.3	0.2	6.408	A
B-A	4	1	489	0.009	5	0.0	0.0	9.283	A
C-AB	64	16	581	0.109	64	0.2	0.1	6.962	A
C-A	26	7			26				
A-B	0.90	0.22			0.90				
A-C	149	37			149				

09:00 - 09:15

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	117	29	715	0.163	117	0.2	0.2	6.083	A
B-A	4	0.94	500	0.008	4	0.0	0.0	9.066	A
C-AB	53	13	583	0.090	53	0.1	0.1	6.788	A
C-A	23	6			23				
A-B	0.75	0.19			0.75				
A-C	125	31			125				

Existing Layout - 2018 Surveyed Flows , 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		3.67	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	2018 Surveyed Flows	PM	ONE HOUR	16:00	17:30	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 - Oakbank Rd		ONE HOUR	✓	115	100.000
B - Park View		ONE HOUR	✓	109	100.000
C - Solway View		ONE HOUR	✓	339	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	115
	B - Park View	8	0	101
	C - Solway View	200	139	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	0	0	0
	C - Solway View	1	0	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	0.16	5.99	0.2	A	93	139
B-A	0.02	8.51	0.0	A	7	11
C-AB	0.31	7.30	0.6	A	175	263
C-A					136	204
A-B					0	0
A-C					106	158

Main Results for each time segment

16:00 - 16:15

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	76	19	725	0.105	76	0.0	0.1	5.541	A
B-A	6	2	471	0.013	6	0.0	0.0	7.739	A
C-AB	135	34	677	0.199	133	0.0	0.3	6.621	A
C-A	121	30			121				
A-B	0	0			0				
A-C	87	22			87				

16:15 - 16:30

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	91	23	720	0.126	91	0.1	0.1	5.725	A
B-A	7	2	454	0.016	7	0.0	0.0	8.048	A
C-AB	169	42	694	0.243	169	0.3	0.4	6.870	A
C-A	136	34			136				
A-B	0	0			0				
A-C	103	26			103				

16:30 - 16:45

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	111	28	712	0.156	111	0.1	0.2	5.988	A
B-A	9	2	432	0.020	9	0.0	0.0	8.507	A
C-AB	221	55	717	0.309	221	0.4	0.6	7.278	A
C-A	152	38			152				
A-B	0	0			0				
A-C	127	32			127				

16:45 - 17:00

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	111	28	712	0.156	111	0.2	0.2	5.990	A
B-A	9	2	432	0.020	9	0.0	0.0	8.511	A
C-AB	222	55	717	0.309	222	0.6	0.6	7.300	A
C-A	152	38			152				
A-B	0	0			0				
A-C	127	32			127				

17:00 - 17:15

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	91	23	720	0.126	91	0.2	0.1	5.728	A
B-A	7	2	454	0.016	7	0.0	0.0	8.054	A
C-AB	169	42	694	0.244	170	0.6	0.4	6.903	A
C-A	136	34			136				
A-B	0	0			0				
A-C	103	26			103				

17:15 - 17:30

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	76	19	725	0.105	76	0.1	0.1	5.549	A
B-A	6	2	471	0.013	6	0.0	0.0	7.751	A
C-AB	135	34	678	0.199	135	0.4	0.3	6.665	A
C-A	120	30			120				
A-B	0	0			0				
A-C	87	22			87				

Existing Layout - 2023 Baseline Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		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)	Run automatically
D3	2023 Baseline Flows	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 - Oakbank Rd		ONE HOUR	✓	176	100.000
B - Park View		ONE HOUR	✓	185	100.000
C - Solway View		ONE HOUR	✓	112	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	1	175
	B - Park View	5	0	180
	C - Solway View	35	77	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	25	0	1
	C - Solway View	0	0	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	7.32	0.4	A	165	248
B-A	0.01	9.78	0.0	A	5	7
C-AB	0.16	7.40	0.2	A	75	112
C-A					28	42
A-B					0.92	1
A-C					161	241

Main Results for each time segment

07:45 - 08:00

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	136	34	713	0.190	135	0.0	0.2	6.277	A
B-A	4	0.94	495	0.008	4	0.0	0.0	9.152	A
C-AB	61	15	583	0.104	60	0.0	0.1	6.885	A
C-A	24	6			24				
A-B	0.75	0.19			0.75				
A-C	132	33			132				

08:00 - 08:15

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	162	40	705	0.229	162	0.2	0.3	6.685	A
B-A	4	1	483	0.009	4	0.0	0.0	9.398	A
C-AB	73	18	580	0.126	73	0.1	0.2	7.096	A
C-A	27	7			27				
A-B	0.90	0.22			0.90				
A-C	157	39			157				

08:15 - 08:30

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	198	50	695	0.285	198	0.3	0.4	7.312	A
B-A	6	1	466	0.012	5	0.0	0.0	9.775	A
C-AB	91	23	577	0.157	91	0.2	0.2	7.394	A
C-A	32	8			32				
A-B	1	0.28			1				
A-C	193	48			193				

08:30 - 08:45

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	198	50	695	0.285	198	0.4	0.4	7.323	A
B-A	6	1	466	0.012	6	0.0	0.0	9.776	A
C-AB	91	23	577	0.157	91	0.2	0.2	7.398	A
C-A	32	8			32				
A-B	1	0.28			1				
A-C	193	48			193				

08:45 - 09:00

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	162	40	705	0.229	162	0.4	0.3	6.700	A
B-A	4	1	483	0.009	5	0.0	0.0	9.401	A
C-AB	73	18	580	0.126	73	0.2	0.2	7.104	A
C-A	27	7			27				
A-B	0.90	0.22			0.90				
A-C	157	39			157				

09:00 - 09:15

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	136	34	713	0.190	136	0.3	0.2	6.303	A
B-A	4	0.94	495	0.008	4	0.0	0.0	9.156	A
C-AB	61	15	583	0.104	61	0.2	0.1	6.900	A
C-A	24	6			24				
A-B	0.75	0.19			0.75				
A-C	132	33			132				

Existing Layout - 2023 Baseline Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.45	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	2023 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Oakbank Rd		ONE HOUR	✓	122	100.000
B - Park View		ONE HOUR	✓	129	100.000
C - Solway View		ONE HOUR	✓	384	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	1	121
	B - Park View	9	0	120
	C - Solway View	210	174	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	0	0	0
	C - Solway View	1	0	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	0.19	6.23	0.2	A	110	165
B-A	0.02	8.91	0.0	A	8	12
C-AB	0.39	8.22	0.8	A	223	334
C-A					130	194
A-B					0.92	1
A-C					111	167

Main Results for each time segment

16:00 - 16:15

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	90	23	723	0.125	90	0.0	0.1	5.679	A
B-A	7	2	459	0.015	7	0.0	0.0	7.956	A
C-AB	171	43	682	0.250	169	0.0	0.4	7.025	A
C-A	119	30			119				
A-B	0.75	0.19			0.75				
A-C	91	23			91				

16:15 - 16:30

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	108	27	717	0.150	108	0.1	0.2	5.903	A
B-A	8	2	440	0.018	8	0.0	0.0	8.332	A
C-AB	215	54	699	0.307	214	0.4	0.6	7.448	A
C-A	130	33			130				
A-B	0.90	0.22			0.90				
A-C	109	27			109				

16:30 - 16:45

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	132	33	709	0.186	132	0.2	0.2	6.232	A
B-A	10	2	414	0.024	10	0.0	0.0	8.904	A
C-AB	282	71	723	0.390	281	0.6	0.8	8.169	A
C-A	140	35			140				
A-B	1	0.28			1				
A-C	133	33			133				

16:45 - 17:00

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	132	33	709	0.186	132	0.2	0.2	6.235	A
B-A	10	2	414	0.024	10	0.0	0.0	8.910	A
C-AB	283	71	724	0.391	283	0.8	0.8	8.218	A
C-A	140	35			140				
A-B	1	0.28			1				
A-C	133	33			133				

17:00 - 17:15

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	108	27	717	0.150	108	0.2	0.2	5.911	A
B-A	8	2	440	0.018	8	0.0	0.0	8.342	A
C-AB	215	54	700	0.308	216	0.8	0.6	7.501	A
C-A	130	33			130				
A-B	0.90	0.22			0.90				
A-C	109	27			109				

17:15 - 17:30

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	90	23	723	0.125	90	0.2	0.1	5.691	A
B-A	7	2	458	0.015	7	0.0	0.0	7.972	A
C-AB	171	43	682	0.251	172	0.6	0.4	7.092	A
C-A	118	30			118				
A-B	0.75	0.19			0.75				
A-C	91	23			91				

Existing Layout - 2023 with Dev. Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.79	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	2023 with Dev. Flows	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 - Oakbank Rd		ONE HOUR	✓	188	100.000
B - Park View		ONE HOUR	✓	231	100.000
C - Solway View		ONE HOUR	✓	117	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	13	175
	B - Park View	37	0	194
	C - Solway View	35	82	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	25	0	1
	C - Solway View	0	0	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	0.31	7.81	0.5	A	178	267
B-A	0.09	10.67	0.1	B	34	51
C-AB	0.17	7.54	0.2	A	80	120
C-A					28	41
A-B					12	18
A-C					161	241

Main Results for each time segment

07:45 - 08:00

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	146	37	702	0.208	145	0.0	0.3	6.511	A
B-A	28	7	494	0.056	28	0.0	0.1	9.648	A
C-AB	65	16	581	0.111	64	0.0	0.1	6.965	A
C-A	23	6			23				
A-B	10	2			10				
A-C	132	33			132				

08:00 - 08:15

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	174	44	693	0.252	174	0.3	0.3	7.010	A
B-A	33	8	481	0.069	33	0.1	0.1	10.048	B
C-AB	78	19	578	0.135	78	0.1	0.2	7.195	A
C-A	27	7			27				
A-B	12	3			12				
A-C	157	39			157				

08:15 - 08:30

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	214	53	679	0.315	213	0.3	0.5	7.796	A
B-A	41	10	463	0.088	41	0.1	0.1	10.663	B
C-AB	97	24	575	0.169	97	0.2	0.2	7.532	A
C-A	32	8			32				
A-B	14	4			14				
A-C	193	48			193				

08:30 - 08:45

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	214	53	679	0.315	214	0.5	0.5	7.812	A
B-A	41	10	462	0.088	41	0.1	0.1	10.669	B
C-AB	97	24	575	0.169	97	0.2	0.2	7.536	A
C-A	32	8			32				
A-B	14	4			14				
A-C	193	48			193				

08:45 - 09:00

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	174	44	693	0.252	175	0.5	0.3	7.032	A
B-A	33	8	481	0.069	33	0.1	0.1	10.060	B
C-AB	78	20	578	0.135	78	0.2	0.2	7.204	A
C-A	27	7			27				
A-B	12	3			12				
A-C	157	39			157				

09:00 - 09:15

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	146	37	702	0.208	146	0.3	0.3	6.546	A
B-A	28	7	493	0.056	28	0.1	0.1	9.667	A
C-AB	65	16	581	0.111	65	0.2	0.1	6.983	A
C-A	23	6			23				
A-B	10	2			10				
A-C	132	33			132				

Existing Layout - 2023 with Dev. Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.77	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	2023 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Oakbank Rd		ONE HOUR	✓	150	100.000
B - Park View		ONE HOUR	✓	151	100.000
C - Solway View		ONE HOUR	✓	396	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	29	121
	B - Park View	24	0	127
	C - Solway View	210	186	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	0	0	0
	C - Solway View	1	0	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	0.20	6.45	0.2	A	117	175
B-A	0.07	9.47	0.1	A	22	33
C-AB	0.42	8.75	0.9	A	239	358
C-A					124	187
A-B					27	40
A-C					111	167

Main Results for each time segment

16:00 - 16:15

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	96	24	716	0.134	95	0.0	0.2	5.793	A
B-A	18	5	454	0.040	18	0.0	0.0	8.247	A
C-AB	183	46	677	0.270	181	0.0	0.4	7.256	A
C-A	115	29			115				
A-B	22	5			22				
A-C	91	23			91				

16:15 - 16:30

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	114	29	708	0.161	114	0.2	0.2	6.056	A
B-A	22	5	434	0.050	22	0.0	0.1	8.723	A
C-AB	230	58	694	0.332	230	0.4	0.6	7.776	A
C-A	126	31			126				
A-B	26	7			26				
A-C	109	27			109				

16:30 - 16:45

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	140	35	698	0.200	140	0.2	0.2	6.444	A
B-A	26	7	407	0.065	26	0.1	0.1	9.463	A
C-AB	303	76	717	0.423	302	0.6	0.9	8.699	A
C-A	133	33			133				
A-B	32	8			32				
A-C	133	33			133				

16:45 - 17:00

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	140	35	698	0.200	140	0.2	0.2	6.449	A
B-A	26	7	406	0.065	26	0.1	0.1	9.474	A
C-AB	304	76	718	0.423	304	0.9	0.9	8.753	A
C-A	132	33			132				
A-B	32	8			32				
A-C	133	33			133				

17:00 - 17:15

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	114	29	708	0.161	114	0.2	0.2	6.066	A
B-A	22	5	434	0.050	22	0.1	0.1	8.741	A
C-AB	231	58	695	0.332	232	0.9	0.6	7.844	A
C-A	125	31			125				
A-B	26	7			26				
A-C	109	27			109				

17:15 - 17:30

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	96	24	716	0.134	96	0.2	0.2	5.811	A
B-A	18	5	454	0.040	18	0.1	0.0	8.268	A
C-AB	183	46	678	0.270	184	0.6	0.5	7.334	A
C-A	115	29			115				
A-B	22	5			22				
A-C	91	23			91				

Existing Layout - 2028 Baseline Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.22	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	2028 Baseline Flows	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 - Oakbank Rd		ONE HOUR	✓	182	100.000
B - Park View		ONE HOUR	✓	191	100.000
C - Solway View		ONE HOUR	✓	115	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	1	181
	B - Park View	5	0	186
	C - Solway View	36	79	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	25	0	1
	C - Solway View	0	0	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	0.30	7.45	0.4	A	171	256
B-A	0.01	9.84	0.0	A	5	7
C-AB	0.16	7.45	0.2	A	77	116
C-A					28	43
A-B					0.92	1
A-C					166	249

Main Results for each time segment

07:45 - 08:00

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	140	35	712	0.197	139	0.0	0.2	6.341	A
B-A	4	0.94	494	0.008	4	0.0	0.0	9.187	A
C-AB	62	16	582	0.107	62	0.0	0.1	6.913	A
C-A	24	6			24				
A-B	0.75	0.19			0.75				
A-C	136	34			136				

08:00 - 08:15

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	167	42	704	0.238	167	0.2	0.3	6.772	A
B-A	4	1	481	0.009	4	0.0	0.0	9.445	A
C-AB	75	19	580	0.130	75	0.1	0.2	7.132	A
C-A	28	7			28				
A-B	0.90	0.22			0.90				
A-C	163	41			163				

08:15 - 08:30

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	205	51	693	0.296	204	0.3	0.4	7.439	A
B-A	6	1	463	0.012	5	0.0	0.0	9.841	A
C-AB	93	23	577	0.162	93	0.2	0.2	7.444	A
C-A	33	8			33				
A-B	1	0.28			1				
A-C	199	50			199				

08:30 - 08:45

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	205	51	693	0.296	205	0.4	0.4	7.451	A
B-A	6	1	463	0.012	6	0.0	0.0	9.843	A
C-AB	93	23	577	0.162	93	0.2	0.2	7.451	A
C-A	33	8			33				
A-B	1	0.28			1				
A-C	199	50			199				

08:45 - 09:00

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	167	42	704	0.238	168	0.4	0.3	6.790	A
B-A	4	1	481	0.009	5	0.0	0.0	9.450	A
C-AB	75	19	580	0.130	75	0.2	0.2	7.141	A
C-A	28	7			28				
A-B	0.90	0.22			0.90				
A-C	163	41			163				

09:00 - 09:15

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	140	35	712	0.197	140	0.3	0.2	6.367	A
B-A	4	0.94	493	0.008	4	0.0	0.0	9.192	A
C-AB	62	16	582	0.107	63	0.2	0.1	6.928	A
C-A	24	6			24				
A-B	0.75	0.19			0.75				
A-C	136	34			136				

Existing Layout - 2028 Baseline Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.55	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
D8	2028 Baseline Flows	PM	ONE HOUR	16:00	17:30	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 - Oakbank Rd		ONE HOUR	✓	126	100.000
B - Park View		ONE HOUR	✓	134	100.000
C - Solway View		ONE HOUR	✓	396	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	1	125
	B - Park View	10	0	124
	C - Solway View	217	179	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	0	0	0
	C - Solway View	1	0	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	0.19	6.30	0.2	A	114	171
B-A	0.03	9.03	0.0	A	9	14
C-AB	0.40	8.36	0.9	A	232	348
C-A					132	197
A-B					0.92	1
A-C					115	172

Main Results for each time segment

16:00 - 16:15

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	93	23	722	0.129	93	0.0	0.1	5.717	A
B-A	8	2	456	0.017	7	0.0	0.0	8.021	A
C-AB	177	44	684	0.259	175	0.0	0.4	7.073	A
C-A	121	30			121				
A-B	0.75	0.19			0.75				
A-C	94	24			94				

16:15 - 16:30

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	111	28	716	0.156	111	0.1	0.2	5.952	A
B-A	9	2	437	0.021	9	0.0	0.0	8.419	A
C-AB	223	56	703	0.318	223	0.4	0.6	7.525	A
C-A	133	33			133				
A-B	0.90	0.22			0.90				
A-C	112	28			112				

16:30 - 16:45

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	137	34	708	0.193	136	0.2	0.2	6.301	A
B-A	11	3	410	0.027	11	0.0	0.0	9.026	A
C-AB	294	74	728	0.404	293	0.6	0.9	8.316	A
C-A	142	35			142				
A-B	1	0.28			1				
A-C	138	34			138				

16:45 - 17:00

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	137	34	708	0.193	137	0.2	0.2	6.303	A
B-A	11	3	409	0.027	11	0.0	0.0	9.033	A
C-AB	295	74	728	0.405	295	0.9	0.9	8.362	A
C-A	141	35			141				
A-B	1	0.28			1				
A-C	138	34			138				

17:00 - 17:15

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	111	28	716	0.156	112	0.2	0.2	5.961	A
B-A	9	2	436	0.021	9	0.0	0.0	8.432	A
C-AB	224	56	703	0.318	225	0.9	0.6	7.583	A
C-A	132	33			132				
A-B	0.90	0.22			0.90				
A-C	112	28			112				

17:15 - 17:30

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	93	23	722	0.129	93	0.2	0.1	5.729	A
B-A	8	2	455	0.017	8	0.0	0.0	8.038	A
C-AB	178	44	685	0.259	178	0.6	0.4	7.144	A
C-A	121	30			121				
A-B	0.75	0.19			0.75				
A-C	94	24			94				

Existing Layout - 2028 with Dev. Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.83	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
D9	2028 with Dev. Flows	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 - Oakbank Rd		ONE HOUR	✓	194	100.000
B - Park View		ONE HOUR	✓	236	100.000
C - Solway View		ONE HOUR	✓	120	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	13	181
	B - Park View	37	0	199
	C - Solway View	36	84	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	25	0	1
	C - Solway View	0	0	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	0.32	7.93	0.5	A	183	274
B-A	0.09	10.75	0.1	B	34	51
C-AB	0.17	7.59	0.2	A	82	123
C-A					28	42
A-B					12	18
A-C					166	249

Main Results for each time segment

07:45 - 08:00

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	150	37	701	0.214	149	0.0	0.3	6.569	A
B-A	28	7	492	0.057	28	0.0	0.1	9.692	A
C-AB	66	17	580	0.114	66	0.0	0.1	6.991	A
C-A	24	6			24				
A-B	10	2			10				
A-C	136	34			136				

08:00 - 08:15

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	179	45	691	0.259	179	0.3	0.3	7.087	A
B-A	33	8	478	0.070	33	0.1	0.1	10.106	B
C-AB	80	20	577	0.139	80	0.1	0.2	7.232	A
C-A	28	7			28				
A-B	12	3			12				
A-C	163	41			163				

08:15 - 08:30

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	219	55	677	0.323	219	0.3	0.5	7.917	A
B-A	41	10	459	0.089	41	0.1	0.1	10.746	B
C-AB	99	25	574	0.173	99	0.2	0.2	7.584	A
C-A	33	8			33				
A-B	14	4			14				
A-C	199	50			199				

08:30 - 08:45

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	219	55	677	0.324	219	0.5	0.5	7.935	A
B-A	41	10	459	0.089	41	0.1	0.1	10.753	B
C-AB	99	25	574	0.173	99	0.2	0.2	7.588	A
C-A	33	8			33				
A-B	14	4			14				
A-C	199	50			199				

08:45 - 09:00

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	179	45	691	0.259	179	0.5	0.4	7.110	A
B-A	33	8	478	0.070	33	0.1	0.1	10.116	B
C-AB	80	20	578	0.139	80	0.2	0.2	7.245	A
C-A	28	7			28				
A-B	12	3			12				
A-C	163	41			163				

09:00 - 09:15

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	150	37	701	0.214	150	0.4	0.3	6.604	A
B-A	28	7	491	0.057	28	0.1	0.1	9.713	A
C-AB	66	17	580	0.114	67	0.2	0.1	7.012	A
C-A	24	6			24				
A-B	10	2			10				
A-C	136	34			136				

Existing Layout - 2028 with Dev. Flows, 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	Solway View/Oakbank Road/Park View priority junction	T-Junction	Two-way		4.87	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
D10	2028 with Dev. Flows	PM	ONE HOUR	16:00	17:30	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 - Oakbank Rd		ONE HOUR	✓	154	100.000
B - Park View		ONE HOUR	✓	154	100.000
C - Solway View		ONE HOUR	✓	408	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	29	125
	B - Park View	24	0	130
	C - Solway View	217	191	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Oakbank Rd	B - Park View	C - Solway View
From	A - Oakbank Rd	0	0	0
	B - Park View	0	0	0
	C - Solway View	1	0	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	0.21	6.50	0.3	A	119	179
B-A	0.07	9.59	0.1	A	22	33
C-AB	0.44	8.92	1.0	A	248	372
C-A					126	189
A-B					27	40
A-C					115	172

Main Results for each time segment

16:00 - 16:15

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	98	24	715	0.137	97	0.0	0.2	5.821	A
B-A	18	5	451	0.040	18	0.0	0.0	8.307	A
C-AB	189	47	680	0.278	187	0.0	0.5	7.307	A
C-A	118	29			118				
A-B	22	5			22				
A-C	94	24			94				

16:15 - 16:30

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	117	29	707	0.165	117	0.2	0.2	6.092	A
B-A	22	5	430	0.050	22	0.0	0.1	8.803	A
C-AB	239	60	698	0.343	238	0.5	0.6	7.863	A
C-A	128	32			128				
A-B	26	7			26				
A-C	112	28			112				

16:30 - 16:45

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	143	36	697	0.205	143	0.2	0.3	6.495	A
B-A	26	7	402	0.066	26	0.1	0.1	9.579	A
C-AB	315	79	722	0.437	314	0.6	1.0	8.863	A
C-A	134	33			134				
A-B	32	8			32				
A-C	138	34			138				

16:45 - 17:00

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	143	36	697	0.205	143	0.3	0.3	6.501	A
B-A	26	7	402	0.066	26	0.1	0.1	9.590	A
C-AB	316	79	722	0.437	316	1.0	1.0	8.924	A
C-A	133	33			133				
A-B	32	8			32				
A-C	138	34			138				

17:00 - 17:15

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	117	29	707	0.165	117	0.3	0.2	6.103	A
B-A	22	5	430	0.050	22	0.1	0.1	8.822	A
C-AB	239	60	698	0.343	241	1.0	0.7	7.939	A
C-A	127	32			127				
A-B	26	7			26				
A-C	112	28			112				

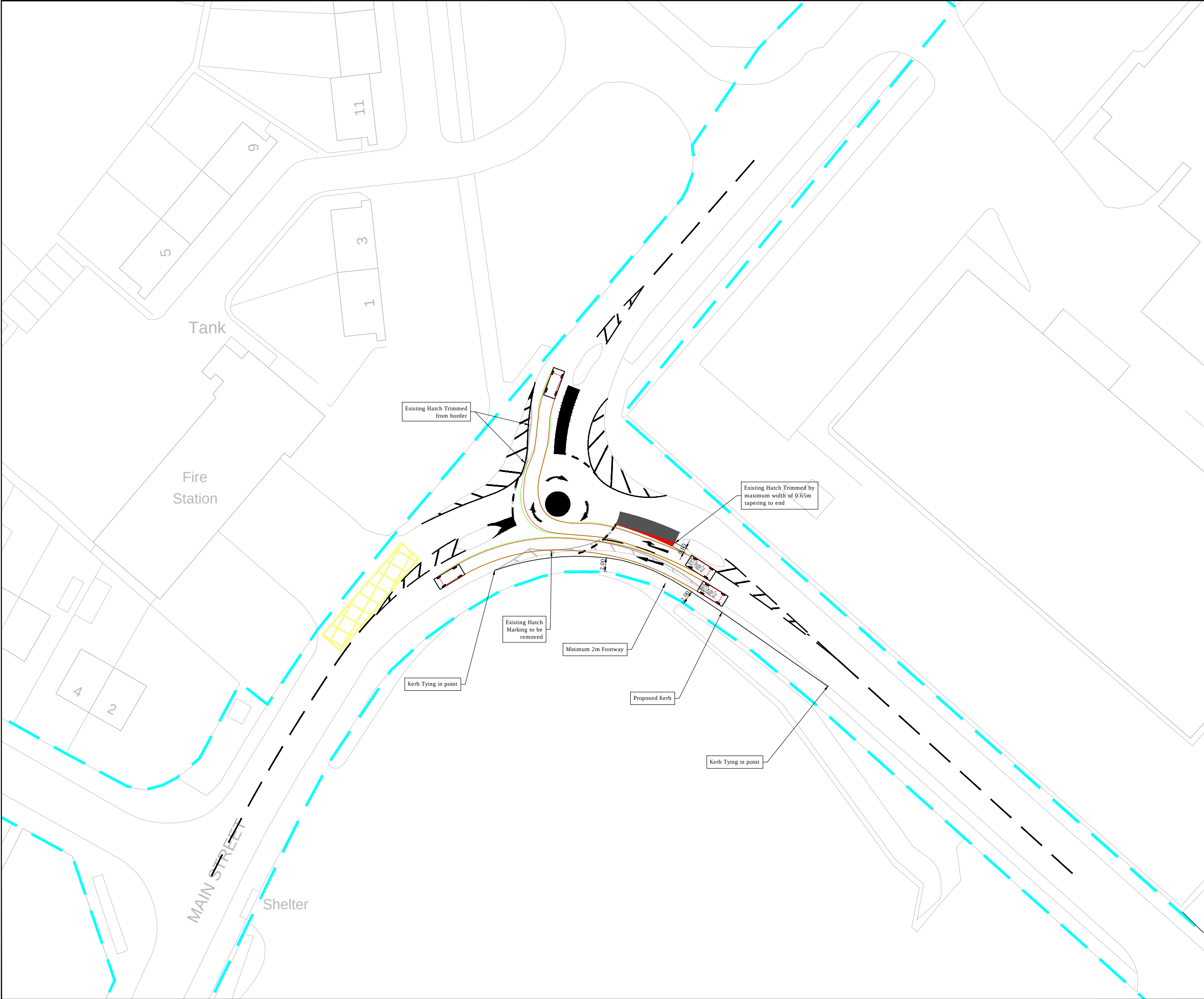
17:15 - 17:30

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	98	24	715	0.137	98	0.2	0.2	5.839	A
B-A	18	5	450	0.040	18	0.1	0.0	8.329	A
C-AB	190	47	681	0.279	191	0.7	0.5	7.388	A
C-A	117	29			117				
A-B	22	5			22				
A-C	94	24			94				



Appendix T – Proposed Mitigation (J5)

FILENAME : \\MANCHESTER2\JOBS\2017\A090070 - 270 AND 410 - HARRAS MOOR, WHITEHEAVEN\CADD\WYG DRAWINGS\A090070-P006.DWG | PLOTTED BY : UMAR AHMED | PLOTTED DATE : 23 October 2018 11:49:44



DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

- This drawing should be read in relation to the subject of the title only. Other information shown on the drawing is to be considered indicative only. Reference should be made to appropriate drawing series/specifications for other information.
- All dimensions are in metres unless specified otherwise.

Key:

Adopted Highways Boundary

Vehicle Specification:

DB32 Private Car	4.223m
Overall Length	1.715m
Overall Width	1.392m
Overall Body Height	0.233m
Min Body Ground Clearance	1.629m
Max Track Width	4.00s
Lock to Lock Time	5.780m
Kerb to Kerb Turning Radius	

Design Vehicle Body Envelope

Design Vehicle Wheel Track

PRELIMINARY ISSUE

REV	DESCRIPTION	BY	CHK	APP	DATE

QUAY WEST at MediaCity UK
TRAFFORD WHARF ROAD
TRAFFORD PARK
MANCHESTER
M17 1HH
TEL: +44 (0)161 872 3223
FAX: +44 (0)161 872 3193
e-mail: manchester@wyg.com

Project:

PROPOSED RESIDENTIAL DEVELOPMENT AT
HARRAS MOOR, WHITEHEAVEN

Drawing Title:

PROPOSED LAYOUT AND VEHICLE TRACKING FOR
MAIN STREET/CLEATOR MOOR ROAD JUNCTION
ROUNABOUT IMPROVEMENT SCHEME

Scale @	A1	Drawn	Date	Checked	Date	Approved	Date	
1:250	UA	OCT 2018	LB	OCT 2018	MS	OCT 2018		
Project No.	Office	Type	Drawing No.	Revision				
A090070	27	C	A090070-P006	P01				

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