GLEESON HOMES AND REGENERATION

WILSON GROVE, LUNDWOOD, BARNSLEY

TRANSPORT ASSESSMENT

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WESTGATE CONSULTING (LEEDS) LIMITED
64 WESTGATE
GUISELEY
LEEDS
LS20 8HJ

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1.0 INTRODUCTION AND BACKGROUND INFORMATION

1.1 This Transport Assessment (TA) forms part of a detailed planning application by Gleeson Homes & Regeneration to build some 97 houses on land off Ellwood/Wilson Grove, Lundwood, Barnsley, as shown on the plan at **Appendix 1.**

1.2 The Assessment will provide the necessary information to assist the Local Planning and Highway Authority to assess the planning application.

1.3 In 2010, outline planning permission was granted for up to 110 houses on the same site with vehicle access by way of Ellwood and Wilson Grove. The application was supported by a Transport Statement prepared by Waterman Boreham Ltd which concluded that the development is a suitable location, that the site is accessible by a choice of transport modes and that the development would have no material impact on the surrounding highway network.

1.4 The application was approved, subject to a number of conditions including no. 13 which states:-

> "Development shall not commence until arrangements have been entered into to secure works to mitigate the effect of the development on highway safety. Such work shall be completed in accordance with a timetable to be agreed in writing by the Local Planning Authority prior to commencement of the development and shall comprise
>
> > Extension of the existing ghost island and right turn lane into Wilson Grove, including the provision of a 3m wide lane from Pontefract Road
> >
> > Traffic Calming measures on Wilson Grove
> >
> > Road markings to denote vehicle priority at the Ellwood/Wilson Grove junction

1.5 This new Transport Assessment will consider the transport implications of the proposal to achieve a sustainable development. Based upon trip data from the TRICS Consortium database and the guidance given in the Department for

Transport (DfT) publication 'Guidance on Transport Assessment', March 2007, it will consider the access arrangements and likely transport impact on the surrounding highway network.

. 1.6 It will be demonstrated that that the site is well located to encourage trips by environmentally friendly modes of travel and is therefore a sustainable development. It will be further shown that the site can be satisfactorily accessed and the traffic likely to be generated by the development proposals can be safely and satisfactorily accommodated on the local highway network.

1.7 A separate Residential Travel Plan has been produced in conjunction with this Transport Statement, both of which demonstrate the development will accord with Local and Central Government advice.

1.8 This Transport Assessment will conclude that there are no highways or transportation reasons which would prevent the proposed development being granted planning consent.

2.0 TRANSPORT POLICY CONSIDERATIONS

National Planning Policy Framework, March 2012

2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development which the document indicates should be seen as a 'golden thread' running through the decision making process.

2.2 Within the overarching roles that the planning system ought to play the NPPF indicates that there are a set of core land use planning principles which should underpin the decision making process. Specifically in relation to transport these principles include:

- Actively managing patterns of growth to make the fullest possible use of public transport, walking and cycling, and focussing significant development in locations which are or can be made sustainable.

2.3 Paragraph 32 of NPPF states that:-

> All developments that generate significant amounts of movement should be supported by a Transport Statement or Transport Assessment. Plans and decisions should take account of whether:
>
> - the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
> - safe and suitable access to the site can be achieved for all people; and
> - Improvements can be undertaken within the transport network that cost effectively limits the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

2.4 NPPF indicates that development should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people and suggests that a key tool to facilitate this will be a Travel Plan. The

application includes a separate Residential Travel Plan prepared by TPS on behalf of Gleeson Homes and Regeneration.

South Yorkshire's Transport Plan 2011 – 2015 (LTP3)

2.5 South Yorkshire's third Local Transport Plan (LTP3) has three component parts: the Transport Strategy, the Implementation Plan and the Annual Delivery Programme which sets out in detail the agreed prioritised delivery programme for the next financial year as well as briefly outlining the proposed four year programme.

2.6 The Transport Strategy has four main goals. The primary goal is to support the economic growth of the City Region. At the same time it aims to enhance social inclusion and health, reduce greenhouse gas emissions and maximise safety.

2.7 In translating the Transport Strategy into action, it follows four cross-cutting principles:-

- **Squeeze more from existing assets**– in the current funding climate this principle will ensure assets are well managed and maintained and used to their fullest potential, minimising the need for major infrastructure work. It is key to this first Implementation Plan. Efforts will be targeted on the routes, locations, customer groups and issues we have identified from our evidence base as being particularly important;
- **Make our growth sustainable** – it will look to achieve economic growth while minimising the impact on the environment, reducing emissions wherever possible;
- **Give people choice** – it will enable people to make informed choices about whether and how they travel, through providing a range of transport links and services to match varying lifestyles; and
- **Encourage a change in travel culture** - facilitating a shift from car dependency to more active and sustainable travel modes.

2.8 Relevant Transport strategy policies include:

- To improve connectivity between major Settlements;
- To focus new development along key public transport corridors and in places adjacent to existing shops and services;
- To apply parking policies to promote efficient car use, while remaining sensitive to the vulnerability of urban economies;
- To develop public transport that connects people to jobs and training in both urban and rural areas;
- To develop user-friendly public transport, covering all parts of SCR, with high quality of integration between different modes;
- To ensure public transport is accessible to all;
- To encourage active travel and develop high-quality cycling and walking networks; and
- To provide information and travel advice for the users of all modes of transport, so that they can make informed travel choices.

3.0 THE LOCAL HIGHWAY NETWORK AND ITS CURRENT USAGE

The Development Site

3.1 The site is located some 4 Km to the north-east of Barnsley Town Centre, as shown on the location plan at **Appendix 2**.

3.2 The site is bounded to the north and west by urban green space, to the east by a disused rail line which is now part of the Trans Pennine Trail (TPT); and to the south by existing residential development accessed by way of Ellwood and Wilson Grove. The site is currently undeveloped but is allocated for residential development in the BMBC Unitary Development Plan.

The local highway network

3.3 Until recently, only part of Wilson Grove was adopted, with the remainder of Wilson Grove and Ellwood unadopted. Both roads were the subject of a sealed Section 38 Agreement dated May 2004 with a developer that has since gone into receivership. Remedial works to both of the unadopted roads have recently been undertaken by Gleeson Homes and Regeneration and both roads have now been fully adopted as highways maintained by the Local Highway Authority.

3.4 Ellwood has a carriageway some 5.5m wide with footways some 2.0m wide to both sides. Wilson Grove also has a carriageway typically 5.5m wide also with footways 2.0m to both sides, and is some 130m long with a summit half way along its length. Both roads are lit and subject to a 30mph speed limit. The junction of Wilson Grove/Ellwood is unmarked.

3.5 Some 130m east of its junction with Ellwood, Wilson Grove meets A628 Pontefract Road at a priority controlled ghost island junction where traffic on Pontefract Road has right of way. The layout of the junction does not conform to modern day design standards; in particular, the central right turn lane for traffic turning from Pontefract Road into Wilson Grove is some 2.2m wide. At its junction with Wilson Grove, Pontefract Road has a carriageway some 10m wide with 2m footways on both sides. Pontefract Road is lit and subject to a

40mph speed limit, however, some 150m to the south in the vicinity of its junction with Abbots Road, the speed limit reduces to 30 mph. Some 25m to the south of the Wilson Road junction, a pedestrian refuge has been constructed in the centre of Pontefract Road to link with bus stops that are located on both sides of the road. Both bus stops are provided with timetables and shelters and details of the bus services are set out at paragraph 3.11 below.

3.6 A628 Pontefract Road is a primary distributor type of road linking Barnsley some 3.5Km to the southwest with Pontefract some 16.5km to the north. In addition, the road provides direct and indirect access to residential, commercial and retail development on both sides and to side streets. Traffic islands and signal pedestrian crossings have also been introduced on the road to allow safe and convenient pedestrian movement across the road.

3.7 Some 1km to the north of its junction with Wilson Grove, A628 Pontefract Road meets Burton Road/West Green Way/Cudworth Parkway(A628)/Barnsley Road at a normal 5 arm roundabout which is referred to as “Pontefract Road Roundabout”. The junction has an inscribed circle diameter of some 92m and a circulatory carriageway typically 10m wide. Burton Road provides a local link to Monk Bretton and West Green, West Green Way provides a link to Carlton, Cudworth Parkway provides a by-pass to Cudworth whilst Barnsley Road provides a link to the centre of Cudworth.

3.8 Some 1.2km to the south of its junction with Wilson Grove, A628 Pontefract Road meets A633 Grange Lane/Rotherham Road at a normal 4 arm roundabout which is referred to as “Cundy Cross”. The junction has an inscribed circle diameter of some 31m and a circulatory carriageway typically 6.4m wide. A633 Grange Lane provides links to M1 to the west, Rotherham to the south and Doncaster to the east whilst Rotherham Road provides a link to Wakefield to the north.

Public Transport

3.9 The institute of Highways and Transportation publication, Guidelines for Planning for Public Transport in Developments advises that the maximum walking distance to a bus stop should not exceed 400.0 metres.

3.10 Bus stops are located on either side of A638, Pontefract Road some 80m and 110m south of its junction with Wilson Grove providing access to services that go to the north and south of the proposed site. These bus stops are served by a number of services including number 26, which runs from Barnsley Interchange to Wombwell, number 27 which connects Barnsley Interchange with Grimethorpe, numbers 28 & 29 which run from Barnsley Interchange to Pontefract bus station in the north and number 30 which runs between Barnsley Interchange and Upton. The stops also serve service number 38 which is a circular service that starts and finishes at Barnsley Interchange and number 38A and 38B which also stops at Cudworth and Shafton. A full description of bus services and frequencies can be found at **Appendix 3.**

Accident Record

3.11 Personal injury accident (PIA) records have been obtained from Barnsley Metropolitan Borough Council Accident Studies Departments for the period from January 2009 to present, which represents the most recent five year period available.

3.12 The information has been provided for the total study area and therefore includes the specific junctions that are the focus of this assessment and the associated links. The PIA data is included within Appendix 4.

3.13 Analysis of the accidents showed that, during the 5 year study period, there have been a total of 58 accidents, 10 of which were classified as serious in severity and 48 as slight. Of these accidents 19 occurred on a highway link and 39 at junctions, three of which are under detailed consideration within this Transport Assessment.

3.14 There have been no accidents recorded in the vicinity of the proposed site access.

3.15 At the Wilson Grove/ A628 Pontefract Road priority junction two accidents have been recorded, one of which was classified as serious in severity and one as slight. One of these accidents involved a pedestrian but neither involved a cyclist. The serious collision was a result of a vehicle pulling out into the path of a motorbike and ejecting the passenger. The slight collision was a result of a pedestrian being struck whilst crossing the mouth of the junction. This is considered to be a low number of accidents over a five-year period.

3.16 At the A628 Pontefract Road/ A628/ Burton Road roundabout 14 accidents have been recorded, two of which were classified as serious in severity and 12 as slight. One of these accidents involved a pedestrian and one involved a cyclist. The first serious accident occurred as a result of the driver losing control and colliding with another vehicle. The second serious accident occurred as a result of a cyclist being struck by a vehicle entering the roundabout. Given the scale of the junction and the existing traffic flows, this is not considered to represent a significant number of accidents. From a more detailed analysis of these accidents approximately 50% are as a result of rear end shunts which are not unusual at roundabouts. It is evident there are no other trends / similarities in the causation factors and no geometric or highway design factors have been noted as being possible contributing factors.

3.17 At the A628 Pontefract Road/ Rotherham Road/ Grange Lane roundabout eight accidents have been recorded, two of which were classified as serious in severity and six as slight. One of the accidents involved a pedestrian but none involved a cyclist. The two serious collisions occurred as a result of vehicles colliding on the circulatory of the roundabout. Given the scale of the junction and the existing traffic flows, this is not considered to represent a significant number of accidents. From a more detailed analysis of these accidents approximately 50% are as a result of rear end shunts which are not unusual at roundabouts. It is evident there are no other trends / similarities in the causation factors and no geometric or highway design factors have been noted as being possible contributing factors.

3.18 Of the 19 accidents that have been recorded on highways links, six involved pedestrians and none involved cyclists. There are existing pedestrian crossing points located along the A628 corridor.

3.19 The remaining 15 accidents recorded occurred at junctions not under consideration within this Transport Assessment.

3.20 It is therefore considered that there is no existing safety problems associated with the road network surrounding the development site. It is not anticipated that the traffic associated with the proposed development would result in any significant safety implications on the adjacent highway network.

Usage of the local highway network

3.21 Traffic surveys of the usage of the following junctions were undertaken by TrafficSense Ltd on 10 September 2014 between the hours 07:30 – 9:30 and 16:00 – 18:30:

1 Wilson Gove/ Pontefract Road priority controlled junction,

2 Pontefract Road/Burton Road roundabout junction

3 Pontefract Road/Grange Lane/Rotherham Road roundabout junction

3.22 The survey results, which are attached at **Appendix 5**, show that the peak usage of the network occurred between 7:45 am to 8:45 am and between 4:15pm to 5:15pm. Diagrams showing the flows on the network during these two periods are at **Appendix 3**.

3.23 TA79/99 'Traffic Capacity of Urban Roads' sets out the traffic carrying capacity of varying standards of urban roads. The advice note considers that a variable standard road carrying mixed traffic with frontage access, side roads, bus stops and at grade pedestrian crossings, such as A628 Pontefract Road, will have a maximum one-way hourly capacity of some 1530 vph. The survey results clearly show that the maximum one way flow on A628 is significantly less than this figure during both peak periods from which it can be concluded that the road currently operates with significant spare capacity at all times.

3.24 Computer analyses of the current peak hour performances of the three junctions set out at paragraphs 3.12 have been undertaken using the programme Junctions 8 which contains PICADY8 and ARCADY8. The results are attached at **Appendix 7** and summarised in tables 3.1 – 3.3 below.

Table 3.1: Wilson Grove/ A628 Pontefract Road Junction

Movement	2014 Existing Morning Peak Hour		2014 Existing Evening Peak Hour	
	RFC	Queue	RFC	Queue
Wilson Grove Right/Left to A628	.08	0	.09	0
A628 right to Wilson Grove	.04	0	.09	0

Table 3.2: Pontefract Road/Burton Road Roundabout Junction

Movement	2014 Existing Morning Peak Hour		2014 Existing Evening Peak Hour	
	RFC	Queue	RFC	Queue
A628 Cudworth Parkway	.46	1	.46	1
Barnsley Road	.65	2	.61	2
A628 Pontefract Road	.67	2	.93	10
Burton Road	.49	1	.77	3
West Green Way	.34	1	.72	2

Table 3.3 Pontefract Road/Grange Lane/Rotherham Road roundabout Jct

Movement	2014 Existing Morning Peak Hour		2014 Existing Evening Peak Hour	
	RFC	Queue	RFC	Queue
A628 Pontefract Road (N)	.71	2	.64	2
Grange Lane	.81	4	.85	6
A628 Pontefract Road (S)	.28	0	.57	1
Rotherham Road	.43	1	.44	1

3.25 The results show that currently,

- the Wilson Grove/Pontefract Road junction operates with significant reserve capacity during both peak periods,
- at the Pontefract Road/Burton Road roundabout, the A628 Pontefract Road arm operates just above its practical capacity during evening peak period with all other arms operating satisfactorily at all times

- at the Rotherham Road/Pontefract Road roundabout, the Grange Lane arm operates at its practical capacity during evening peak period, with all other arms operating satisfactorily at all times

4.0 ACCESS TO THE DEVELOPMENT SITE BY SUSTAINABLE FORMS OF TRANSPORT

4.1 Current national planning policy set out in NPPF places significant emphasis on the availability and use of alternative means of access to the private car to developments.

4.2 The site is located within 1200 metres of key services and amenities such as Schools, a Supermarket, Post Office, Cafe, Church, Village Hall and Lundwood Social Club.

Accessibility on foot

4.3 As regards walking to local facilities, the Institution of Highways and Transportation (IHT) Guidelines for Providing for Journeys on Foot sets out the following suggested acceptable walking distance to and from the development for commuting and other journeys.

Table 4.1 IHT Recommended Walking Distances

	Trip Purpose	
	Commuting/School	Other Journeys
Desirable Maximum Distance	500 metres	400 metres
Acceptable Maximum Distance	1,000 metres	800 metres
Preferred Maximum Distance	2,000 metres	1200 metres

4.4 Furthermore 'Better Places to Live - A Companion Guide to PPG3' states that residents can access comfortably on foot facilities within an 800.0 metre walking distance. Also, PPG13 advises that ".....walking is the most important mode of travel at local levels and offers greatest potential to replace short car trips, particularly under 2.0 kilometres".

4.5 The proposed development will provide a convenient pedestrian link to the surrounding areas that will encourage walking trips. The plan at **Appendix 8** shows local facilities that will be within convenient walking distance of the site

and these include a supermarket, post office, cafe, convenience store, food takeaways, a hair salon, a church, village hall, the Lundwood social club and charity shops**.**

Accessibility by Cycle

4.6 Cycling has clear potential to substitute for short car trips, particularly those under 5km and up to 8km, and to form part of a longer journey by public transport. The plans at **Appendix 9** shows that the site will be directly linked to the Trans Pennine Trail (TPT) to the east, and that Barnsley Town Centre, Royston, Wombwell, South Kirkby and Thurnscoe are all within 8.0 km of the site and are therefore accessible by cycle

Accessibility by Bus

4.7 The Institution of Highways and Transportation publication, Guidelines for Planning for Public Transport in Developments advises that the maximum walking distance to a bus stop should not exceed 400.0 metres. As outlined in paragraph 3.10, bus stops are located on A628 Pontefract Road in the vicinity of its junction with Wilson Grove and the walk distance to these stops from the centre of the development site is less than the acceptable threshold.

Accessibility by Rail

4.8 The nearest railway station is Barnsley Interchange which is located some 3 kilometres to the west of the site. It is on the Hallam and Penistone lines and provides rail links to Leeds, Sheffield, Nottingham and Huddersfield. The site will therefore be accessible by train to residents of the site.

Summary

4.9 It is concluded that the application site is in a sustainable location and offers a wide opportunity for sustainable travel, hence reducing reliance on the private car.

5.0 THE PROPOSED DEVELOPMENT

5.1 The application by Gleeson Homes & Regeneration seeks detailed permission to build some 97 houses on land off Ellwood/Wilson Grove, Lundwood, Barnsley, as shown on the plan at **Appendix 1.** The development will comprise a mix of 2, 3 and 4 bedroom semi-detached and detached houses.

5.2 Both pedestrian and vehicle access is proposed by way of Ellwood which is now an adopted highway following remedial works undertaken by Gleesons. In addition, a further pedestrian footpath/cycleway will be provided to link the site directly with Trans Pennine Trail (TPT) to the east and the existing housing off Priory place to the west. These existing and proposed facilities will connect the site with the existing facilities in the vicinity of the site and the existing residential area.

5.3 The proposed site layout shows a hierarchy of access roads serving the residential units. The principal spine road from Ellwood will comprise a 5.5m wide carriageway with 2m wide footways to either side, and this will provide access to a hierarchy of lower tier roads and shared surface roads branching off it. All roads will provide access to properties and all have been designed to accommodate the necessary refuse and emergency vehicle requirements.

5.4 The internal access roads have been designed to achieve low vehicle speeds within the site, incorporating elements of shared surfaces, and appropriate changes in road alignment. The layout design reflects the importance of accessibility by walking and cycling and will assist in providing a safe environment for pedestrians and cyclists within the site.

5.5 All of the proposed houses will have off-street parking which will be provided in accordance with the guidance set out within the Barnsley SPD Parking, as set out below.

1 space for dwelling with 1 or 2 bedrooms.

2 spaces for dwellings with 3 or more bedrooms.

It is considered that the proposed level of parking will provide an appropriate balance between the need to promote sustainable modes of transport, meeting residents' demands and minimising on-street parking.

5.6 The planning application also includes a separate Framework Travel Plan which reflects changes in national and local transport policy and sets out a package of measures aimed at promoting sustainable travel.

6.0 TRIP GENERATION AND MODAL SPLIT

6.1 The trip generation and modal split of the proposed development has been determined using the Trip Rate Information Computer System (TRICS) database and validated against the travel to work statistics from the Monk Bretton ward within the census data.

6.2 Under the 'Houses Privately Owned' category, all the multimodal sites, excluding 'Ireland' and 'central London' have been interrogated to establish average 'Person Trip Rates' and "Modal Splits" for residential development, and these are summarised in tables 6.1 and 6.2 below with the full TRICS output attached at **Appendix 10.**

Table 6.1 Residential Average Person Trip Rate

Land Use	Morning Peak Hour			Evening Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Residential	.245	.787	1.032	.598	0.303	0.901

Table 6.2 Residential Modal Splits

Mode of Travel	
Foot	11%
Cycle	1%
Bus	9%
Car Driver	69%
Car Passenger	9%
Train	1%

6.3 Combining the two tables provides predicted average peak hour trips by transport mode for the residential application, as shown on table 6.3.

Table 6.3 Average Residential Trip Generation

Mode of Travel	Morning Peak Hour			Evening Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Foot	2	6	8	6	3	9
Cycle	0	1	1	1	0	1
Bus	2	5	7	5	3	8
Car Driver	15	39	54	36	20	55
Car Passenger	2	5	7	4	2	6
Train	0	1	1	1	0	1

6.4 As a sensitivity test, 85%ile vehicle trip rates have also been obtained for the TRICS database and the resultant 85%ile generated trips are shown in table 6.4 below.

Table 6.4 Residential 85%ile Vehicle Trip Rate

Land Use	Morning Peak Hour			Evening Peak Hour		
	Arrivals	Departures	Total	Arrivals	Departures	Total
Residential	18	51	69	45	29	74

7.0 TRAFFIC IMPACT

7.1 All traffic that currently uses Wilson Grove at its junction with Pontefract Road junction is generated by the existing housing development off Wilson Grove and Ellwood. It is therefore considered reasonable to assume that the distribution of the traffic likely to be generated by the proposed housing onto the local highway network will be the same as the existing distribution. Based upon this assumption, the diagrams at **Appendix 11** show the likely additional average and 85%ile vehicle movements that the development will generate on the local highway network

7.2 The diagrams show that based upon 85%ile trip rates, the development is likely to generate some additional 38 two trips onto Pontefract Road to the north of its junction with Wilson Grove, and some 26 additional trips to the south. During the evening peak period, the corresponding trips are some 27 and 46 respectively. All of these flows equate to less than one additional trip per minute which will be less than the day to day variation in traffic flow on Pontefract Road and therefore will not be noticeable.

7.3 It is likely that development will commence in 2015 and take some 4 years to complete. The traffic impact of the development has therefore been assessed at 2019.

7.4 The diagrams at **Appendix 12** show base peak hour flows at 2019 and have been derived by applying NTM factors (which have been adjusted using Tempro local growth factors) at **Appendix 13,** to the existing peak hour flows at **Appendix 6**.

7.5 The average and 85%ile generated peak hour development traffic shown on the diagrams at **Appendices 11** have been added to the base flows shown at **Appendix 12** to give predicted traffic flows on the network as a result of the proposed development at 2019 and these are shown on the diagrams at **Appendix 14.**

7.6 The diagrams show that the predicted average and 85%ile peak hour traffic flows on A628 Pontefract Road will remain less than the previously determined capacity of the road and hence it will continue to operate with significant reserve capacity at all times.

7.7 In order to provide robust analyses, computer analyses of the predicted peak hour performances of the three junctions set out at paragraphs 3.12 have been undertaken based upon the 85%ile generated trip rates. The results are attached at **Appendix 7** and summarised in tables 7.1 – 7.3 below.

Table 7.1: Wilson Grove/ A628 Pontefract Road Junction

Movement	2019 Base Morning Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates		2019 Base Evening Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
Wilson Grove Right/Left to A628	.09	0	.25	0	.09	9	.24	0
A628 right to Wilson Grove	.04	0	.11	0	.09	9	.21	1

Table 7.2: Pontefract Road/Burton Road Roundabout Junction

Movement	2019 Base Morning Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates		2019 Base Evening Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A628 Cudworth Parkway	.51	1	.48	1	.52	1	.6	1
Barnsley Road	.73	3	.72	2	.68	2	.73	3
A628 Pontefract Rd	.75	3	.76	3	1.03	34	1.05	38
Burton Road	.55	1	.56	1	.87	6	.88	6
West Green Way	.38	1	.39	1	.82	94	.83	4

Table 7.3:Pontefract Road/Grange Lane/Rotherham Road Roundabout Jct

Movement	2019 Base Morning Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates		2019 Base Evening Peak Hour		2019 Pred. Morning Peak Hour 85%ile trip rates	
	RFC	Q	RFC	Q	RFC	Q	RFC	Q
A628 Pontefract Road (N)	..79	4	.81	4	..71	2	.73	3
Grange Lane	.89	7	.9	8	.94	11	.95	13
A628 Pontefract Road (S)	.32	0	.32	0	.66	2	.67	2
Rotherham Road	.47	1	.48	1	.5	1	.51	1

7.8 The results show that currently,

- the Wilson Grove/Pontefract Road junction will continue to operate within capacity at 2019, without and with the traffic that the development is likely to generate,
- at the Pontefract Road/Burton Road roundabout, all arms of the junction will continue to operate within capacity at all times, apart from Pontefract Road which is predicted to operate above capacity during the evening peak period in the base 2019 scenario and slightly worse with the generated traffic. However, the extra traffic on this arm is one additional vehicle every ten minutes i.e. less than 1% extra traffic and therefore in practice, the impact will not be noticeable.
- at the Rotherham Road/Pontefract Road roundabout all arms of the junction will continue to operate within capacity at all times, apart from Grange Lane which is predicted to operate above capacity during the evening peak period in the base 2019 scenario and slightly worse with the generated traffic. However, the extra traffic on this arm is one additional vehicle every 4-5 minutes i.e. about 1% extra traffic and therefore in practice, the impact will not be noticeable.

7.9 Notwithstanding that the Wilson Gove/Pontefract Road junction in its present form is predicted to continue to operate within capacity, as part of the

development, it is proposed to modify the layout to provide a 3m wide right turning lane on Pontefract Road, as shown on the drawing at **Appendix 15**. This improvement will ensure that the junction continues to operate in a safe manner to the benefit of both existing and new users of the junction.

8.0 SUMMARY AND CONCLUSIONS

8.1 This Transport Assessment (TA) forms part of a detailed planning application by Gleeson Homes & Regeneration to build some 97 houses on land off Ellwood/Wilson Grove, Lundwood, Barnsley.

8.2 The Assessment provides the necessary information to assist the Local Planning and Highway Authority to assess the planning application.

8.3 In 2010, outline planning permission was granted for up to 110 houses on the same site with vehicle access by way of Ellwood and Wilson Grove. The application was supported by a Transport Statement prepared by Waterman Boreham Ltd which concluded that the development is a suitable location, that the site is accessible by a choice of transport modes and that the development would have no material impact on the surrounding highway network.

8.4 This Transport Assessment has considered the transport implications of the proposal to achieve a sustainable development. Based upon trip data from the TRICS Consortium database and the guidance given in the Department for Transport (DfT) publication 'Guidance on Transport Assessment', March 2007, it has considered the access arrangements and likely transport impact on the surrounding highway network.

8.5 It has been demonstrated that the site is well located to encourage trips by environmentally friendly modes of travel and is therefore a sustainable development. It has been further shown that the site can be satisfactorily accessed and the traffic likely to be generated by the development proposals can be safely and satisfactorily accommodated on the local highway network. These conclusions are consistent with the findings of the 2010 Transport Statement prepared by Waterman Boreham Ltd.

8.6 A separate Residential Travel Plan has been produced in conjunction with this Transport Statement, both of which demonstrate the development will accord with Local and Central Government advice.

8.7 Overall it is considered that the site is a suitable location for the proposed development and there are no highways or transport reasons that should prevent the granting of planning consent for the proposals.

Appendix 1

LUNDWOOD BARNSLEY
sketch housing layout

ENCLOSURES

S.W. boarded vertical screen fence 1.80m high (100 x 19mm boards with gaps, 3No. 75 x 38mm rails, 100 x 100mm posts @ 2.050m centres) as detail dwg.no. SD100

Plot division fence, post & wire as detail dwg.no. SD103

DRIVE DETAIL
Gravel drive
1.5m apron
Footpath

Paving slab access paths to level threshold for principle entrance. Gradient not to exceed 1 in 12 for maximum 5.00m length.

Footpath/cycleway links thro' site

Indicates bin storage within rear gardens.

All garages are optional. If not built concurrently with the house, a screen fence is to be provided on rear garage wall line.

Parkland
Trans-Pennine Trail
Footpath Link
Open Space and Play Area
Overhead electric cables
Incidental Open Space
existing boundary fencing to be checked and any new works required agreed on site
Sewer Easement
Elec. Sub-Sta
Warehouse
Claremont Gardens
PRIORY PLACE
ELLWOOD
PONTEFRACT ROAD
Drain
Path
Slope

1. Do not scale off drawing
2. All dimensions to be checked on site
3. Any discrepancy between drawn and specified information to be notified immediately
4. If in doubt - ASK

Layout based on ordinance & topographical survey information provided by client. All external boundaries to be checked against the Land Registry title plan prior to commencement on site and any discrepancies to be notified to ACER Architectural Limited.

All materials, landscape details and boundary treatments are subject to approval by the Local Planning Authority.

homes by gleeson

House Type Schedule

201	Cork	2 bed semi-det	18
202	Kerry	2 bed semi-det	10
301	Tyrone	3 bed semi-det	15
302	Galway	3 bed semi-det	8
303	Wicklow	3 bed semi-det	12
309	Fergus	3 bed detached	9
304	Kilkenny	3 bed detached	10
307	Kildare	3 bed detached	6
310	Liffey	3 bed detached	3
400	Stoneyford	4 bed detached	2
401	Longford	4 bed detached	2
403	Carlow	4 bed detached	1
404	Craven	4 bed detached	1
			97

New tree planting only. Refer to Landscape Plan for exact details

Existing trees, hedgerow and scrub

Existing trees, hedgerow and scrub, dead, felled or to be removed

G 06.10.14 Updated in accordance with Rosetta Landscape Design details. (DLM)
F 24.09.14 Drawing renamed to Housing Layout. Additional planning information added. enclosures etc. Elec. Sub-Station added. (DLM)
E 25.03.14 Amended in line with Client instructions and Planning comments. POS & Play Area repositioned. (DLM)
D 10.12.13 Layout amended in line with title boundary. (DLM)
C 25.11.13 Amended generally following planning comments. POS & Play Area repositioned. Direct rear access to all plots. Plots 16-17 & 40-42 rotated to front parkland. Shared surface road widths amended. (DLM)
B 11.11.13 Amended generally in line with clients instruction. House Type 307 added to scheme. 1 No. plot omitted. Survey information added. (DLM)
A 23.10.13 P.O.S. and Play Area added. Road layout amended. Plot substitutions to suit. (DLM)

revisions

ACER architectural Design & Planning Services

client
Gleeson Regeneration & Homes

project
Land at Lundwood, Barnsley

drawing title
SKETCH HOUSING LAYOUT

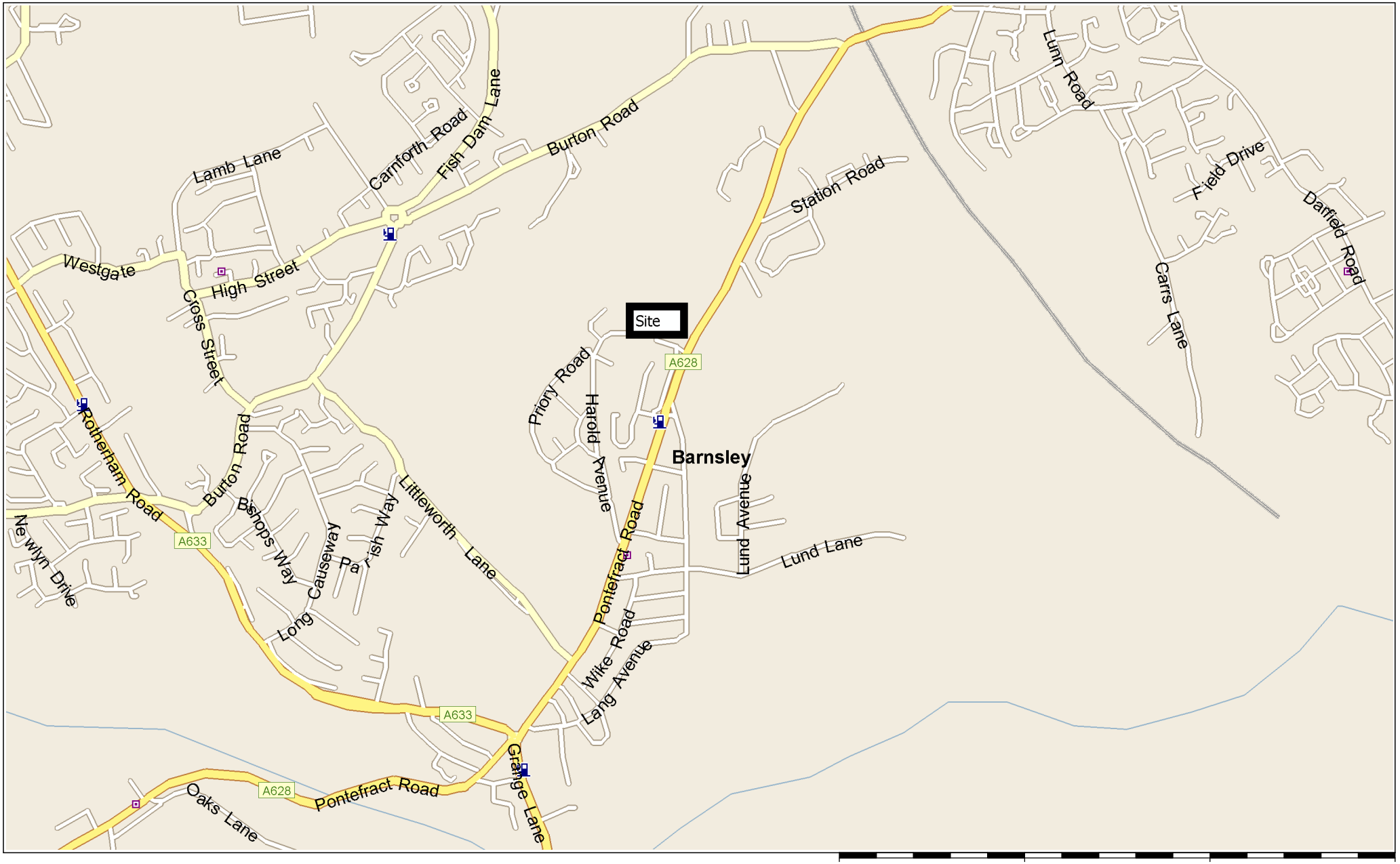
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The Well Garden, Branton Green, Great Ouseburn, North Yorks, YO26 9RT
Tel: 01423 579105
Email: Mail@ACERarchitectural.co.uk

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Appendix 2

Location Plan, Lundwood



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Appendix 3

Bus Services, Lundwood, Barnsley

Bus Service	Bus Route	Frequency during weekdays and Saturdays	Frequency during Sundays
26 /X26	Barnsley Interchange – Hoyle Mill – Cundy Cross – Lundwood – Cudworth – Shafton – Brierley – Grimethorpe – Middlecliffe(X26 Only) – Great Horton(X26 Only) - Little Houghton(X26 Only) - Darfield – Low Valley – Wombwell Station	Every 60 minutes	Every 60 minutes
27/ X27	Barnsley Interchange – Hoyle Mill – Cundy Cross – Lundwood – Cudworth – Shafton – Brierley – Grimethorpe(27 Terminates Here) – Billingley(X27) – Highgate(X27) – Goldthorpe(X27 Terminates Here)	Every 60 minutes	N27 service running from 00:25 to 04:20 only
28/ 28A/ X28	Barnsley Interchange – Hoyle Mill – Cundy Cross – Lundwood – Cudworth – Shafton – Grimethorpe Interchange – Brierley – Hemsworth – Kinsley – Fitzwilliam(28/ X28) – Wragby(28/ X28) – Featherstone(28/ X28) – Purston Jaglin(28/ X28) – Pontefract Bus Station(28 And X28 Terminates Here)-South Kirkby(28a Only) – Moorthorpe(28a Only) – South	Every 60 minutes	Every 60 minutes

	Elmsall(28a Only) – Minsthorpe(28a Only) – North Elmsall(28a Only) – Upton(28a Terminates Here)		
29	Barnsley Interchange – Hoyle Mill – Lundwood – Cudworth – Shafton – Grimethorpe – Brierley – South Hiendley – Hemsworth Bus Station – South Kirkby – Moorthorpe – South Elmsall – Minsthorpe – North Elmsall – Wrangbrook – Upton – Badsworth – Thorpe Audlin – East Hardwick – Carleton - Pontefract	Every 60 minutes	No Sunday service
30 / 30A	Barnsley Interchange – Hoyle Mill(30/30a) – Cundy Cross(30/30a) – Lundwood(30/30a) – Cudworth(30/30a) – Shafton(30/30a) – Grimethorpe(30/30a) – Brierley(30a Terminates Here) – South Kirkby – Moorthorpe – South Elmsall Bus Station – Minsthorpe – North Elmsall – Upton	Every 60 minutes	Every 60 minutes
32	Barnsley Interchange – Hoyle Mill – Cundy Cross – Lundwood – Cudworth	Every 10 minutes	Every 60 minutes
34	Barnsley Interchange – Honeywell	Every 60 minutes	No Sunday service

	- Monk Bretton – Smithies – Athersley South – Carlton – Shafton – Cudworth – Lundwood – Cundy Cross – Monk Bretton – Honeywell – Barnsley Interchange		
37/ 37A	Barnsley Interchange – Lundwood – Cudworth – Shafton – Grimethorpe – Brierley(37a Only) – Hemsworth(37a Terminates Here)	Every 60 minutes	No Sunday service
38/ 38A/ 38B	Barnsley Interchange – Hoyle Mill – Cundy Cross – Lundwood – Cudworth – Shafton – Grimethorpe – Brierley(38a Only) – Hemsworth(38a Only) - Barnsley Interchange	Between 40 and 60 minutes. Daytime only	No Sunday service

Travel South Yorkshire

26 27 N27 X26 X27

Full Timetable

Barnsley
Shafton
Grimethorpe
Great Houghton (X26)
Middlecliffe (X26)
Goldthorpe (X27)
Darfield (26, X26)
Wombwell (26, X26)

From 28/09/2014

Also serves:
Unipart Logistics
ASOS

Also available online at travelsouthyorkshire.com

Operated by:

Stagecoach

Some journeys operated with financial support from South Yorkshire Passenger Transport Executive

What's changed

From Sunday 28 September 2014, changes will be made to the times of services 26, X26 and X27.

These services have been changed as a result of changes to night shift patterns at ASOS.



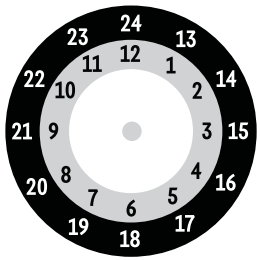
We aim to provide information which is as accurate as possible. We cannot accept responsibility for errors, or for any service that does not operate to the times shown.

24 hour clock
Throughout South Yorkshire our timetables use the 24 hour clock to avoid confusion between am and pm times.

For example:

9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times



Stopping points for service 26

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ St Lukes Road ▸ **Grimethorpe, Interchange** ▸ Acorn Way ▸ Park Spring Road ▸ **Darfield** ▸ Doncaster Road ▸ Nanny Marr Road ▸ Illsley Road ▸ Morrison Road ▸ Bly Road ▸ Roundwood Way ▸ Upperwood Road ▸ Snape Hill Road ▸ George Street ▸ **Low Valley** ▸ Stoneyford Road ▸ Station Road ▸ **Wombwell, Station Road**

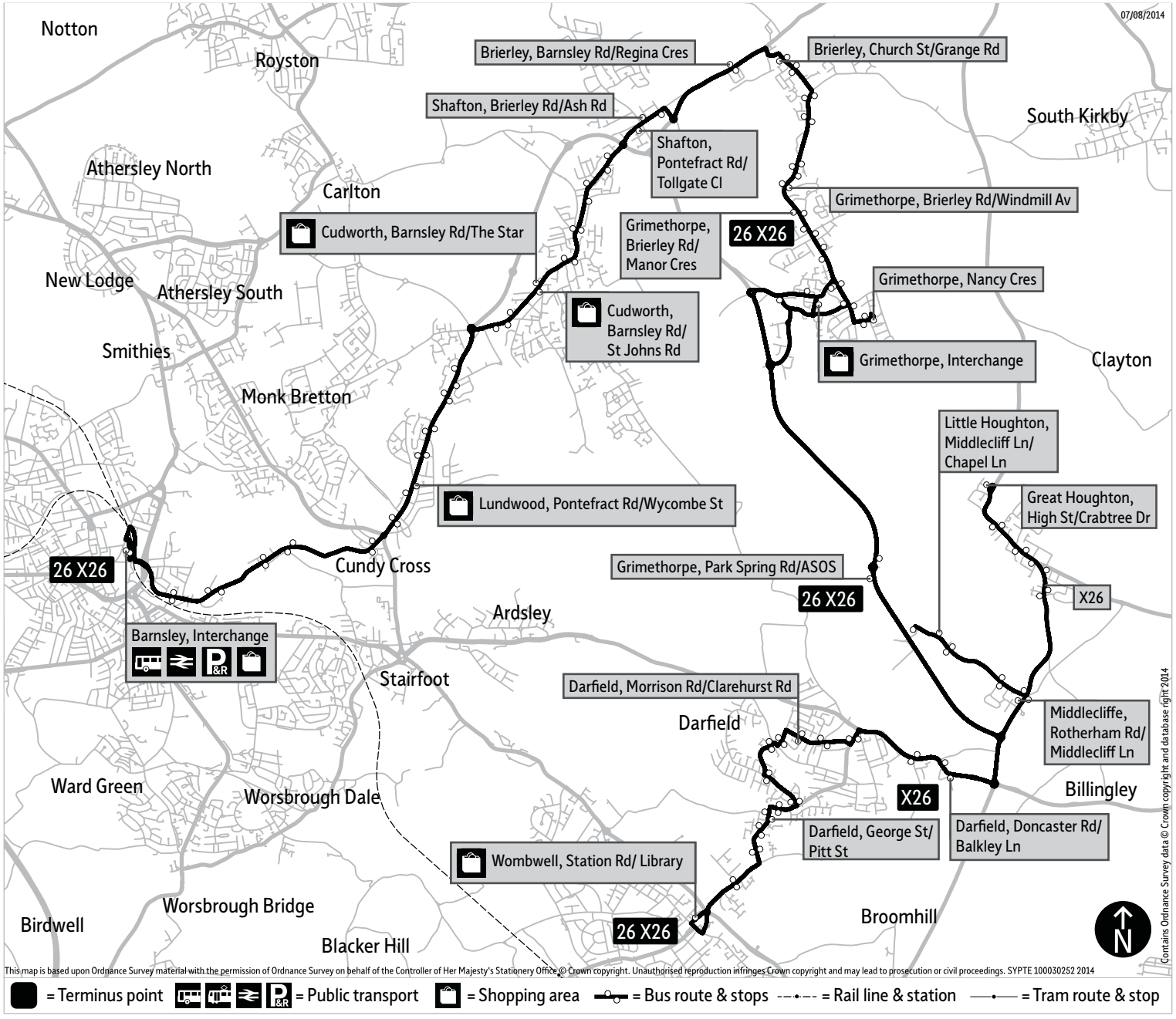
Wombwell, Station Road ▸ **Low Valley** ▸ Stoneyford Road ▸ George Street ▸ **Darfield** ▸ Snape Hill Road ▸ Upperwood Road ▸ Roundwood Way ▸ Bly Road ▸ Morrison Road ▸ Illsley Road ▸ Nanny Marr Road ▸ Doncaster Road ▸ **Grimethorpe** ▸ Park Spring Road ▸ High Street ▸ **Grimethorpe, Interchange** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service X26

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ St Lukes Road ▸ **Grimethorpe, Interchange** ▸ Acorn Way ▸ Park Spring Road ▸ **Middlecliffe** ▸ Rotherham Road ▸ **Great Houghton** ▸ High Street ▸ Rotherham Road ▸ **Middlecliffe** ▸ Middlecliff Lane ▸ **Little Houghton** ▸ Ings Lane ▸ Middlecliff Lane ▸ **Middlecliffe** ▸ **Darfield** ▸ Doncaster Road ▸ Nanny Marr Road ▸ Illsley Road ▸ Morrison Road ▸ Bly Road ▸ Roundwood Way ▸ Upperwood Road ▸ Snape Hill Road ▸ George Street ▸ **Low Valley** ▸ George Street ▸ Stoneyford Road ▸ Station Road ▸ **Wombwell, Station Road**

Wombwell, Station Road ▸ **Low Valley** ▸ Stoneyford Road ▸ George Street ▸ **Darfield** ▸ Snape Hill Road ▸ Upperwood Road ▸ Roundwood Way ▸ Bly Road ▸ Morrison Road ▸ Illsley Road ▸ Nanny Marr Road ▸ Doncaster Road ▸ **Middlecliffe** ▸ Rotherham Road ▸ Middlecliff Lane ▸ **Little Houghton** ▸ Ings Lane ▸ Middlecliff Lane ▸ **Middlecliffe** ▸ **Great Houghton** ▸ Rotherham Road ▸ High Street ▸ Rotherham Road ▸ **Middlecliffe** ▸ **Grimethorpe** ▸ Park Spring Road ▸ High Street ▸ **Grimethorpe, Interchange** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Bus route map for services 26 and X26



26, X26 ▸ Monday to Saturday

Barnsley Centre ▸ Wombwell

Service number:	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	26	26
See notes:	NS	S	NS														
Barnsley, Interchange	–	–	–	–	0736	0841	0941	1041	1141	1241	1341	1441	1541	1646	1738	1838	1938
Lundwood, Pontefract Rd/Wycombe St	–	–	–	–	0746	0851	0951	1051	1151	1251	1351	1451	1552	1658	1749	1847	1947
Cudworth, Barnsley Rd/The Star	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1851	1951
Shafton, Brierley Rd/Ash Rd	–	–	–	–	0753	0858	0958	1058	1158	1258	1358	1458	1559	1705	1756	1856	1956
Brierley, Barnsley Rd/Regina Cres	–	–	–	–	0755	0900	1000	1100	1200	1300	1400	1500	1601	1707	1758	1858	1958
Grimethorpe, Brierley Rd/Windmill Av	–	–	–	–	0759	0904	1004	1104	1204	1304	1404	1504	1605	1711	1802	1902	2002
Grimethorpe, Nancy Cres	–	–	–	–	0802	0907	1007	1107	1207	1307	1407	1507	1608	1714	1805	1905	2005
Grimethorpe, Queensway/Interchange	–	0611	–	–	0806	0911	1011	1111	1211	1311	1411	1511	1612	1718	1809	1909	2009
Grimethorpe, Park Spring Rd/ASOS	–	0616	0616	0716	0811	0916	1016	1116	1216	1316	1416	1516	1617	1723	1814	1914	2014
Great Houghton, High St/Crabtree Dr	–	–	–	–	0817	0922	1022	1122	1222	1322	1422	1522	1623	1729	–	–	–
Little Houghton, Middlecliff Ln/Chapel Ln	–	–	–	–	0823	0928	1028	1128	1228	1328	1428	1528	1629	1735	–	–	–
Darfield, Doncaster Rd/Balkley Ln	0452	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1917	2017
Darfield, Morrison Rd/Clarehurst Rd	0455	0622	0622	0722	0831	0936	1036	1136	1236	1336	1436	1536	1637	1743	1820	1920	2020
Darfield, George St/Pitt St	0500	0627	0627	0727	0836	0941	1041	1141	1241	1341	1441	1541	1642	1748	1825	1925	2025
Wombwell, Station Rd/ Library	0503	0630	0630	0730	0839	0944	1044	1144	1244	1344	1444	1544	1645	1751	1828	1928	2028

26, X26 ▸ Monday to Saturday (continued)

Barnsley Centre ▸ Wombwell

Service number:	26	26	26
Barnsley, Interchange	2038	2138	2238
Lundwood, Pontefract Rd/Wycombe St	2047	2147	2247
Cudworth, Barnsley Rd/The Star	2051	2151	2251
Shafton, Brierley Rd/Ash Rd	2056	2156	2256
Brierley, Barnsley Rd/Regina Cres	2058	2158	2258
Grimethorpe, Brierley Rd/Windmill Av	2102	2202	2302
Grimethorpe, Nancy Cres	2105	2205	2305
Grimethorpe, Queensway/Interchange	2109	2209	2309
Grimethorpe, Park Spring Rd/ASOS	2114	2214	2314
Great Houghton, High St/Crabtree Dr	–	–	–
Little Houghton, Middlecliff Ln/Chapel Ln	–	–	–
Darfield, Doncaster Rd/Balkley Ln	2117	2217	2317
Darfield, Morrison Rd/Clarehurst Rd	2120	2220	2320
Darfield, George St/Pitt St	2125	2225	2325
Wombwell, Station Rd/ Library	2128	2228	2328

26, X26 ▸ Monday to Saturday

Wombwell ▸ Barnsley Centre

Service number:		X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	X26	26	26	26
See notes:			NS	S														
Wombwell, Station Rd/ Library		0537	0632	–	0701	0801	0906	1006	1106	1206	1306	1406	1506	1611	1711	1829	1929	1959
Darfield, George St/Pitt St		0541	0636	–	0705	0805	0910	1010	1110	1210	1310	1410	1510	1615	1715	1832	1932	2002
Darfield, Morrison Rd/Clarehurst Rd		0546	0641	–	0710	0810	0915	1015	1115	1215	1315	1415	1515	1620	1720	1837	1937	2007
Middlecliffe, Rotherham Rd/Middlecliff Ln		–	–	–	0716	0816	0921	1021	1121	1221	1321	1421	1521	1626	1726	–	–	–
Little Houghton, Middlecliff Ln/Chapel Ln		–	–	–	0719	0819	0924	1024	1124	1224	1324	1424	1524	1629	1729	–	–	–
Great Houghton, High St/Crabtree Dr		–	–	–	0724	0824	0929	1029	1129	1229	1329	1429	1529	1634	1734	–	–	–
Grimethorpe, Park Spring Rd/ASOS	a.	0552	0647	–	0731	0831	0936	1036	1136	1236	1336	1436	1536	1641	1741	1844	1944	2014
Grimethorpe, Park Spring Rd/ASOS	d.	0552	0647	–	0732	0832	0937	1037	1137	1237	1337	1437	1537	1642	1742	1844	1944	2014
Grimethorpe, Queensway/Interchange		0557	0653	0658	0737	0837	0942	1042	1142	1242	1342	1442	1542	1647	1747	1849	1949	–
Grimethorpe, Nancy Cres		–	0656	0701	0741	0841	0946	1046	1146	1246	1346	1446	1546	1651	1751	1852	1952	–
Grimethorpe, Brierley Rd/Manor Cres		–	0659	0704	0744	0844	0949	1049	1149	1249	1349	1449	1549	1654	1754	1855	1955	–
Brierley, Church St/Grange Rd		–	0704	0709	0749	0849	0954	1054	1154	1254	1354	1454	1554	1659	1759	1859	1959	–
Shafton, Pontefract Rd/Tollgate Cl		–	0706	0711	0751	0851	0956	1056	1156	1256	1356	1456	1556	1701	1801	1901	2001	–
Cudworth, Barnsley Rd/St Johns Rd		–	–	–	–	–	–	–	–	–	–	–	–	–	–	1906	2006	–
Lundwood, Pontefract Rd/Wycombe St		–	0713	0718	0758	0858	1003	1103	1203	1303	1403	1503	1603	1708	1808	1910	2010	–
Barnsley, Interchange		–	0722	0727	0807	0907	1012	1112	1212	1312	1412	1512	1612	1717	1817	1919	2019	–

26, X26 ▸ Monday to Saturday (continued)

Wombwell ▸ Barnsley Centre

Service number:		26	26	26
Wombwell, Station Rd/ Library		2029	2129	2229
Darfield, George St/Pitt St		2032	2132	2232
Darfield, Morrison Rd/Clarehurst Rd		2037	2137	2237
Middlecliffe, Rotherham Rd/Middlecliff Ln		–	–	–
Little Houghton, Middlecliff Ln/Chapel Ln		–	–	–
Great Houghton, High St/Crabtree Dr		–	–	–
Grimethorpe, Park Spring Rd/ASOS	a.	2044	2144	2244
Grimethorpe, Park Spring Rd/ASOS	d.	2044	2144	2244
Grimethorpe, Queensway/Interchange		2049	2149	2249
Grimethorpe, Nancy Cres		2052	2152	2252
Grimethorpe, Brierley Rd/Manor Cres		2055	2155	2255
Brierley, Church St/Grange Rd		2059	2159	2259
Shafton, Pontefract Rd/Tollgate Cl		2101	2201	2301
Cudworth, Barnsley Rd/St Johns Rd		2106	2206	2306
Lundwood, Pontefract Rd/Wycombe St		2110	2210	2310
Barnsley, Interchange		2119	2219	2319

26 ▸ Sunday

Barnsley Centre ▸ Wombwell

Service number:		26	26	26	26	26	26		26		26
Barnsley, Interchange		–	–	–	–	–	1038		38		2238
Lundwood, Pontefract Rd/Wycombe St		–	–	–	–	–	1047		47		2247
Cudworth, Barnsley Rd/The Star		–	–	–	–	–	1051		51		2251
Shafton, Brierley Rd/Ash Rd		–	–	–	–	–	1056		56		2256
Brierley, Barnsley Rd/Regina Cres		–	–	–	–	–	1058	then at	58	until	2258
Grimethorpe, Brierley Rd/Windmill Av		–	–	–	–	–	1102	these	02		2302
Grimethorpe, Nancy Cres		–	–	–	–	–	1105	mins past	05		2305
Grimethorpe, Queensway/Interchange	a.	–	–	–	–	–	1109	the hour	09		2309
Grimethorpe, Queensway/Interchange	d.	0545	0550	0609	0648	–	1109		09		2309
Grimethorpe, Park Spring Rd/ASOS		0550	0555	0614	0653	0714	1114		14		2314
Darfield, Morrison Rd/Clarehurst Rd		–	–	0620	–	0720	1120		20		2320
Darfield, George St/Pitt St		–	–	0625	–	0725	1125		25		2325
Wombwell, Station Rd/ Library		–	–	0628	–	0728	1128		28		2328

26 ▸ Sunday

Wombwell ▸ Barnsley Centre

Service number:	26	26	26	26		26		26	26	26	26	26	26
Wombwell, Station Rd/ Library	0529	–	0628	0929		29		1829	1929	1959	2029	2129	2229
Darfield, George St/Pitt St	0532	–	0631	0932		32		1832	1932	2002	2032	2132	2232
Darfield, Morrison Rd/Clarehurst Rd	0537	–	0636	0937		37		1837	1937	2007	2037	2137	2237
Grimethorpe, Park Spring Rd/ASOS	0544	–	0643	0944		44		1844	1944	2014	2044	2144	2244
Grimethorpe, Park Spring Rd/ASOS	–	0604	–	–	then at	–	until	–	–	–	–	–	–
Grimethorpe, Queensway/Interchange	0549	0609	0648	0949	these	49		1849	1949	–	2049	2149	2249
Grimethorpe, Nancy Cres	–	–	–	0952	mins past	52		1852	1952	–	2052	2152	2252
Grimethorpe, Brierley Rd/Manor Cres	–	–	–	0955	the hour	55		1855	1955	–	2055	2155	2255
Brierley, Church St/Grange Rd	–	–	–	0959		59		1859	1959	–	2059	2159	2259
Shafton, Pontefract Rd/Tollgate Cl	–	–	–	1001		01		1901	2001	–	2101	2201	2301
Cudworth, Barnsley Rd/St Johns Rd	–	–	–	1006		06		1906	2006	–	2106	2206	2306
Lundwood, Pontefract Rd/Wycombe St	–	–	–	1010		10		1910	2010	–	2110	2210	2310
Barnsley, Interchange	–	–	–	1018		18		1918	2018	–	2118	2218	2318

Notes: a. - Arrival time, d. - Departure time.

Stopping points for service 27

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ St Lukes Road ▸ **Grimethorpe, Queensway**

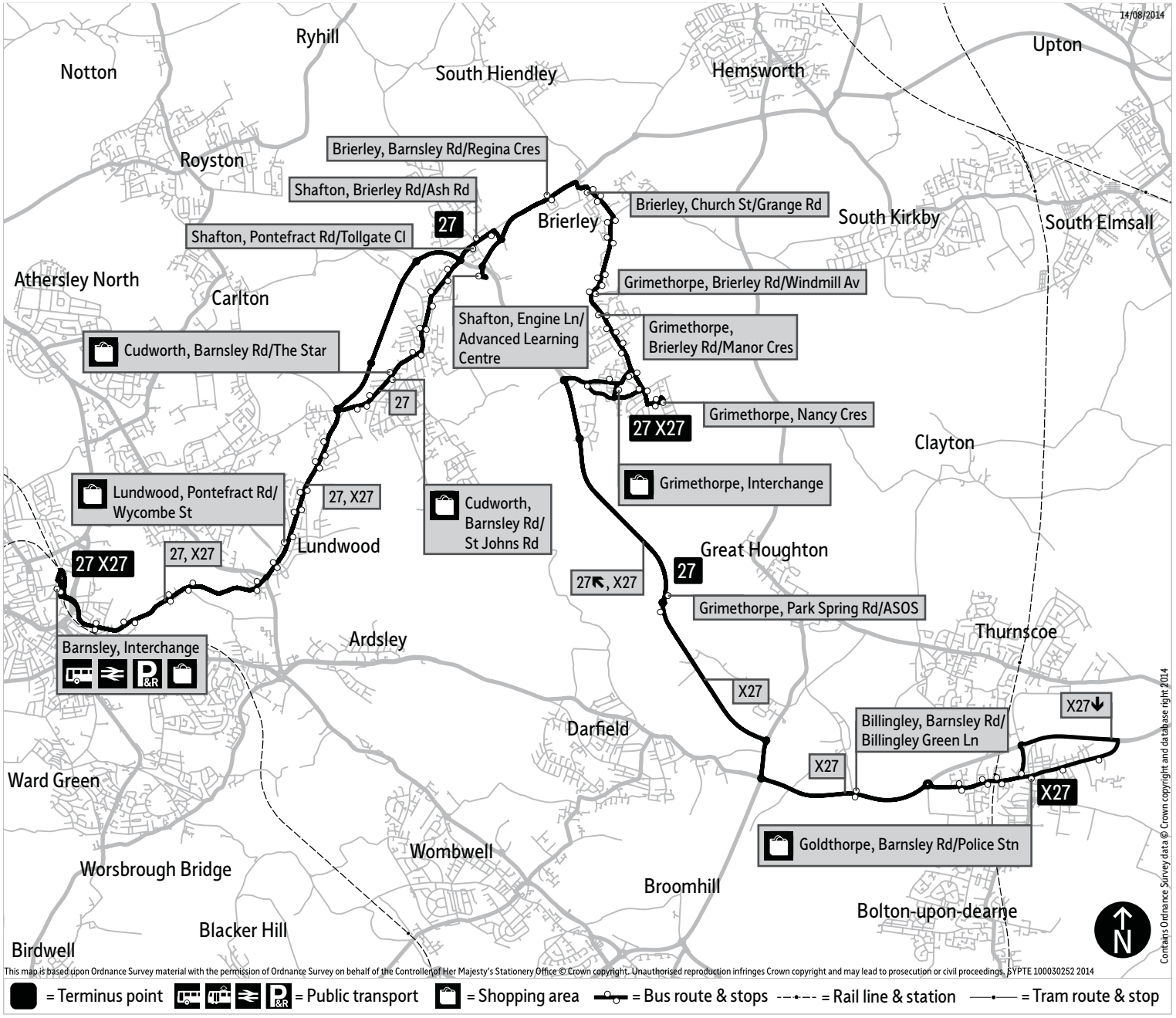
Grimethorpe, Queensway ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service X27

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ Brierley Road ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ St Lukes Road ▸ Queensway ▸ Acorn Way ▸ Park Spring Road ▸ **Billingley** ▸ Barnsley Road ▸ **Highgate** ▸ Fields End Road ▸ Doncaster Road ▸ **Goldthorpe, Barnsley Road**

Goldthorpe, Barnsley Road ▸ **Highgate** ▸ **Billingley** ▸ Barnsley Road ▸ **Grimethorpe** ▸ Park Spring Road ▸ High Street ▸ Queensway ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Bus route map for services 27 and X27



27, X27 ▸ Monday to Friday

Barnsley Centre ▸ Goldthorpe

Service number:		X27	X27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	27
See notes:																	SH	SD
Barnsley, Interchange		0611	0711	0756	0821	0901	0921	1001	1021	1101	1121	1201	1221	1301	1321	1401	1421	1421
Lundwood, Pontefract Rd/Wycombe St		0621	0721	0806	0831	0911	0931	1011	1031	1111	1131	1211	1231	1311	1331	1411	1431	1431
Cudworth, Barnsley Rd/The Star		–	–	–	0836	–	0936	–	1036	–	1136	–	1236	–	1336	–	1436	1436
Shafton, Brierley Rd/Ash Rd		0628	0728	0813	0841	0918	0941	1018	1041	1118	1141	1218	1241	1318	1341	1418	1441	1441
Shafton, Engine Ln/Advanced Learning Centre		–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1444
Brierley, Barnsley Rd/Regina Cres		0630	0730	0815	0843	0920	0943	1020	1043	1120	1143	1220	1243	1320	1343	1420	1443	1446
Grimethorpe, Brierley Rd/Windmill Av		0634	0734	0819	0847	0924	0947	1024	1047	1124	1147	1224	1247	1324	1347	1424	1447	1450
Grimethorpe, Nancy Cres		0637	0737	0822	0851	0927	0951	1027	1051	1127	1151	1227	1251	1327	1351	1427	1451	1454
Grimethorpe, Interchange	a.	0641	0741	0826	0855	0931	0955	1031	1055	1131	1155	1231	1255	1331	1355	1431	1455	1458
Grimethorpe, Interchange	d.	0641	0741	0830	–	0935	–	1035	–	1135	–	1235	–	1335	–	1435	–	–
Grimethorpe, Park Spring Rd/ASOS		0646	0746	0835	–	0940	–	1040	–	1140	–	1240	–	1340	–	1440	–	–
Goldthorpe, Barnsley Rd/Police Stn		0701	0801	0850	–	0955	–	1055	–	1155	–	1255	–	1355	–	1455	–	–

27, X27 ▸ Monday to Friday (continued)

Barnsley Centre ▸ Goldthorpe

Service number:		X27	27	X27	27	X27	27
See notes:			SH				
Barnsley, Interchange		1501	1521	1601	1626	1703	1726
Lundwood, Pontefract Rd/Wycombe St		1512	1532	1612	1638	1715	1739
Cudworth, Barnsley Rd/The Star		–	1537	–	1643	–	1744
Shafton, Brierley Rd/Ash Rd		1519	1542	1619	1648	1722	1749
Shafton, Engine Ln/Advanced Learning Centre		–	–	–	–	–	–
Brierley, Barnsley Rd/Regina Cres		1521	1544	1621	1650	1724	1751
Grimethorpe, Brierley Rd/Windmill Av		1525	1548	1625	1654	1728	1755
Grimethorpe, Nancy Cres		1528	1552	1628	1658	1731	1759
Grimethorpe, Interchange	a.	1532	1556	1632	1702	1735	1803
Grimethorpe, Interchange	d.	1536	–	1636	–	1739	–
Grimethorpe, Park Spring Rd/ASOS		1541	–	1641	–	1744	–
Goldthorpe, Barnsley Rd/Police Stn		1556	–	1656	–	1759	–

27, X27 ▸ Monday to Friday

Goldthorpe ▸ Barnsley Centre

Service number:		27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27
Goldthorpe, Barnsley Rd/Police Stn		–	–	0703	–	0802	–	0904	–	1004	–	1104	–	1204	–	1304	–	1404
Grimethorpe, Park Spring Rd/ASOS	a.	–	–	0710	–	0811	–	0913	–	1013	–	1113	–	1213	–	1313	–	1413
Grimethorpe, Park Spring Rd/ASOS	d.	0615	–	0712	–	0811	–	0917	–	1017	–	1117	–	1217	–	1317	–	1417
Grimethorpe, Interchange		0621	0636	0718	0754	0817	0900	0922	1000	1022	1100	1122	1200	1222	1300	1322	1400	1422
Grimethorpe, Nancy Cres		0624	0639	0721	0758	0820	0904	0926	1004	1026	1104	1126	1204	1226	1304	1326	1404	1426
Grimethorpe, Brierley Rd/Manor Cres		0627	0642	0724	0801	0823	0907	0929	1007	1029	1107	1129	1207	1229	1307	1329	1407	1429
Brierley, Church St/Grange Rd		0632	0647	0729	0806	0828	0912	0934	1012	1034	1112	1134	1212	1234	1312	1334	1412	1434
Shafton, Pontefract Rd/Tollgate Cl		0634	0649	0731	0808	0830	0914	0936	1014	1036	1114	1136	1214	1236	1314	1336	1414	1436
Cudworth, Barnsley Rd/St Johns Rd		0639	0654	–	0813	–	0919	–	1019	–	1119	–	1219	–	1319	–	1419	–
Lundwood, Pontefract Rd/Wycombe St		0643	0658	0738	0817	0837	0923	0943	1023	1043	1123	1143	1223	1243	1323	1343	1423	1443
Barnsley, Interchange		0652	0707	0747	0827	0847	0932	0952	1032	1052	1132	1152	1232	1252	1332	1352	1432	1452

27, X27 ▸ Monday to Friday (continued)

Goldthorpe ▸ Barnsley Centre

Service number:		X27	27	27	X27	27	X27	27
See notes:			SH	SD				
Goldthorpe, Barnsley Rd/Police Stn		1504	–	–	1609	–	1709	–
Grimethorpe, Park Spring Rd/ASOS	a.	1513	–	–	1618	–	1718	–
Grimethorpe, Park Spring Rd/ASOS	d.	1517	–	–	1622	–	1722	–
Grimethorpe, Interchange		1522	1605	–	1627	1708	1727	1810
Grimethorpe, Nancy Cres		1526	1609	–	1631	1712	1731	1814
Grimethorpe, Brierley Rd/Manor Cres		1529	1612	–	1634	1715	1734	1817
Brierley, Church St/Grange Rd		1534	1617	–	1639	1720	1739	1822
Shafton, Pontefract Rd/Tollgate Cl		1536	1619	1619	1641	1722	1741	1824
Cudworth, Barnsley Rd/St Johns Rd		–	1624	1624	–	1727	–	1829
Lundwood, Pontefract Rd/Wycombe St		1543	1628	1628	1648	1731	1748	1833
Barnsley, Interchange		1552	1637	1637	1657	1740	1757	1842

27, X27 ▸ Saturday

Barnsley Centre ▸ Goldthorpe

Service number:		X27	27	X27	27		X27	27		27	X27	27	X27	27	X27	27
Barnsley, Interchange		0756	0821	0901	0921		01	21		1421	1501	1521	1601	1626	1703	1726
Lundwood, Pontefract Rd/Wycombe St		0806	0831	0911	0931		11	31		1431	1512	1532	1612	1638	1715	1739
Cudworth, Barnsley Rd/The Star		–	0836	–	0936		–	36		1436	–	1537	–	1643	–	1744
Shafton, Brierley Rd/Ash Rd		0813	0841	0918	0941	then at	18	41	until	1441	1519	1542	1619	1648	1722	1749
Brierley, Barnsley Rd/Regina Cres		0815	0843	0920	0943	these	20	43		1443	1521	1544	1621	1650	1724	1751
Grimethorpe, Brierley Rd/Windmill Av		0819	0847	0924	0947	mins past	24	47		1447	1525	1548	1625	1654	1728	1755
Grimethorpe, Nancy Cres		0822	0851	0927	0951	the hour	27	51		1451	1528	1552	1628	1658	1731	1759
Grimethorpe, Interchange	a.	0826	0855	0931	0955		31	55		1455	1532	1556	1632	1702	1735	1803
Grimethorpe, Interchange	d.	0830	–	0935	–		35	–		–	1536	–	1636	–	1739	–
Grimethorpe, Park Spring Rd/ASOS		0835	–	0940	–		40	–		–	1541	–	1641	–	1744	–
Goldthorpe, Barnsley Rd/Police Stn		0850	–	0955	–		55	–		–	1556	–	1656	–	1759	–

27, X27 ▸ Saturday

Goldthorpe ▸ Barnsley Centre

Service number:		27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27	27	X27
Goldthorpe, Barnsley Rd/Police Stn		–	–	–	–	–	–	0904	–	1004	–	1104	–	1204	–	1304	–	1404
Grimethorpe, Park Spring Rd/ASOS	a.	–	–	–	–	–	–	0913	–	1013	–	1113	–	1213	–	1313	–	1413
Grimethorpe, Park Spring Rd/ASOS	d.	–	–	0712	–	–	–	0917	–	1017	–	1117	–	1217	–	1317	–	1417
Grimethorpe, Interchange		0603	0633	0718	0754	0817	0900	0922	1000	1022	1100	1122	1200	1222	1300	1322	1400	1422
Grimethorpe, Nancy Cres		0606	0636	0721	0758	0820	0904	0926	1004	1026	1104	1126	1204	1226	1304	1326	1404	1426
Grimethorpe, Brierley Rd/Manor Cres		0609	0639	0724	0801	0823	0907	0929	1007	1029	1107	1129	1207	1229	1307	1329	1407	1429
Brierley, Church St/Grange Rd		0614	0644	0729	0806	0828	0912	0934	1012	1034	1112	1134	1212	1234	1312	1334	1412	1434
Shafton, Pontefract Rd/Tollgate Cl		0616	0646	0731	0808	0830	0914	0936	1014	1036	1114	1136	1214	1236	1314	1336	1414	1436
Cudworth, Barnsley Rd/St Johns Rd		0621	0651	–	0813	–	0919	–	1019	–	1119	–	1219	–	1319	–	1419	–
Lundwood, Pontefract Rd/Wycombe St		0625	0655	0738	0817	0837	0923	0943	1023	1043	1123	1143	1223	1243	1323	1343	1423	1443
Barnsley, Interchange		0634	0704	0747	0827	0847	0932	0952	1032	1052	1132	1152	1232	1252	1332	1352	1432	1452

27, X27 ▸ Saturday (continued)

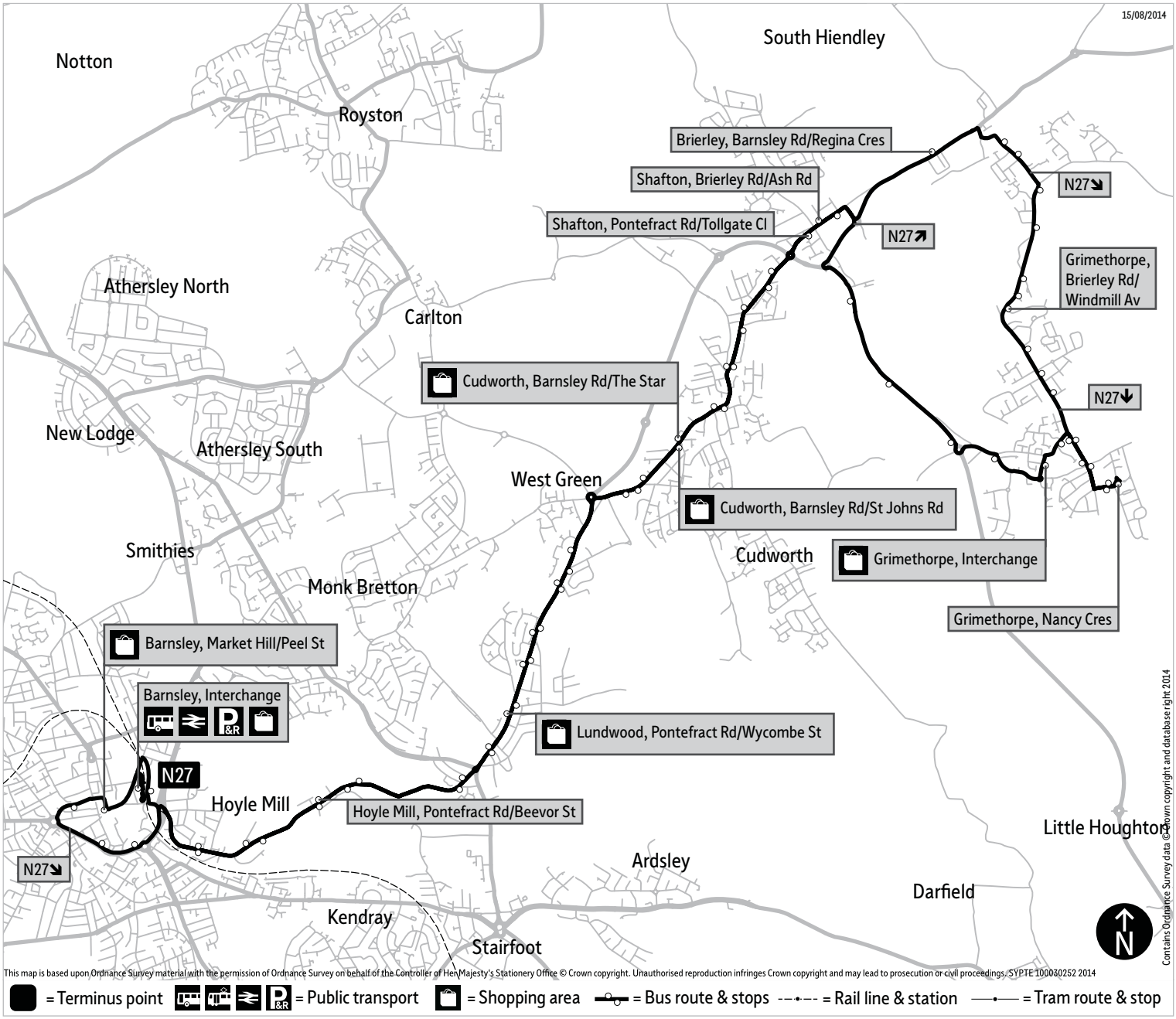
Goldthorpe ▸ Barnsley Centre

Service number:		X27	27	X27	27	X27	27
Goldthorpe, Barnsley Rd/Police Stn		1504	–	1609	–	1709	–
Grimethorpe, Park Spring Rd/ASOS	a.	1513	–	1618	–	1718	–
Grimethorpe, Park Spring Rd/ASOS	d.	1517	–	1622	–	1722	–
Grimethorpe, Interchange		1522	1605	1627	1708	1727	1810
Grimethorpe, Nancy Cres		1526	1609	1631	1712	1731	1814
Grimethorpe, Brierley Rd/Manor Cres		1529	1612	1634	1715	1734	1817
Brierley, Church St/Grange Rd		1534	1617	1639	1720	1739	1822
Shafton, Pontefract Rd/Tollgate Cl		1536	1619	1641	1722	1741	1824
Cudworth, Barnsley Rd/St Johns Rd		–	1624	–	1727	–	1829
Lundwood, Pontefract Rd/Wycombe St		1543	1628	1648	1731	1748	1833
Barnsley, Interchange		1552	1637	1657	1740	1757	1842

Notes: a. - Arrival time, d. - Departure time, SD - Schooldays only, SH - School holidays

No Service Sunday

Bus route map for service N27



Stopping points for service N27

Barnsley, Interchange ▸ Market Hill ▸ Shambles Street ▸ West Way ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ **Grimethorpe** ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ St Lukes Road ▸ Queensway ▸ Acorn Way ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

N27 ▸ Sunday

Barnsley Centre ▸ Grimethorpe ▸ Barnsley Centre

Barnsley, Interchange		0025	0125	0225	0325
Barnsley, Market Hill/Peel St	a.	0026	0126	0226	0326
Barnsley, Market Hill/Peel St	d.	0030	0130	0230	0330
Lundwood, Pontefract Rd/Wycombe St		0038	0138	0238	0338
Cudworth, Barnsley Rd/The Star		0042	0142	0242	0342
Shafton, Brierley Rd/Ash Rd		0046	0146	0246	0346
Brierley, Barnsley Rd/Regina Cres		0048	0148	0248	0348
Grimethorpe, Brierley Rd/Windmill Av		0052	0152	0252	0352
Grimethorpe, Nancy Cres		0055	0155	0255	0355
Grimethorpe, Interchange		0059	0159	0259	0359
Shafton, Pontefract Rd/Tollgate Cl		0104	0204	0304	0404
Cudworth, Barnsley Rd/St Johns Rd		0108	0208	0308	0408
Lundwood, Pontefract Rd/Wycombe St		0112	0212	0312	0412
Barnsley, Interchange		0120	0220	0320	0420

No Service Monday to Saturday

Travel South Yorkshire

28 28A 29 30 30A X28

Full Timetable

Barnsley
Grimethorpe (28, 28A, 29, 30, 30A)
Hemsworth (28, 28A, 29, X28)
South Elmsall (28A, 29, 30, 30A)
Upton (28A, 29, 30, 30A)
Thorpe Audlin (29)
Pontefract (28, 29, X28)
Castleford (X28)

From 28/09/2014

Also serves:
ASOS (28, 28A, 29, 30, 30A)
Unipart Logistics (28, 28A, 29, 30, 30A)

Also available online at travelsouthyorkshire.com

Operated by:
Stagecoach

Some journeys operated with financial support from South Yorkshire Passenger Transport Executive

What's changed

From Sunday 28 September 2014, timetable changes will be made to services 28A, 29 and 30.

Revised times will be introduced for Shafton ALC, and on journeys in the Michael's Estate area.

There are no changes to the times of services 28, 30A or X28.

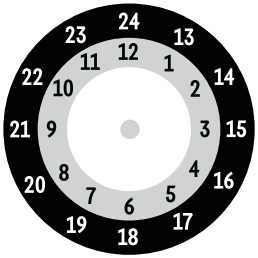


We aim to provide information which is as accurate as possible. We cannot accept responsibility for errors, or for any service that does not operate to the times shown.

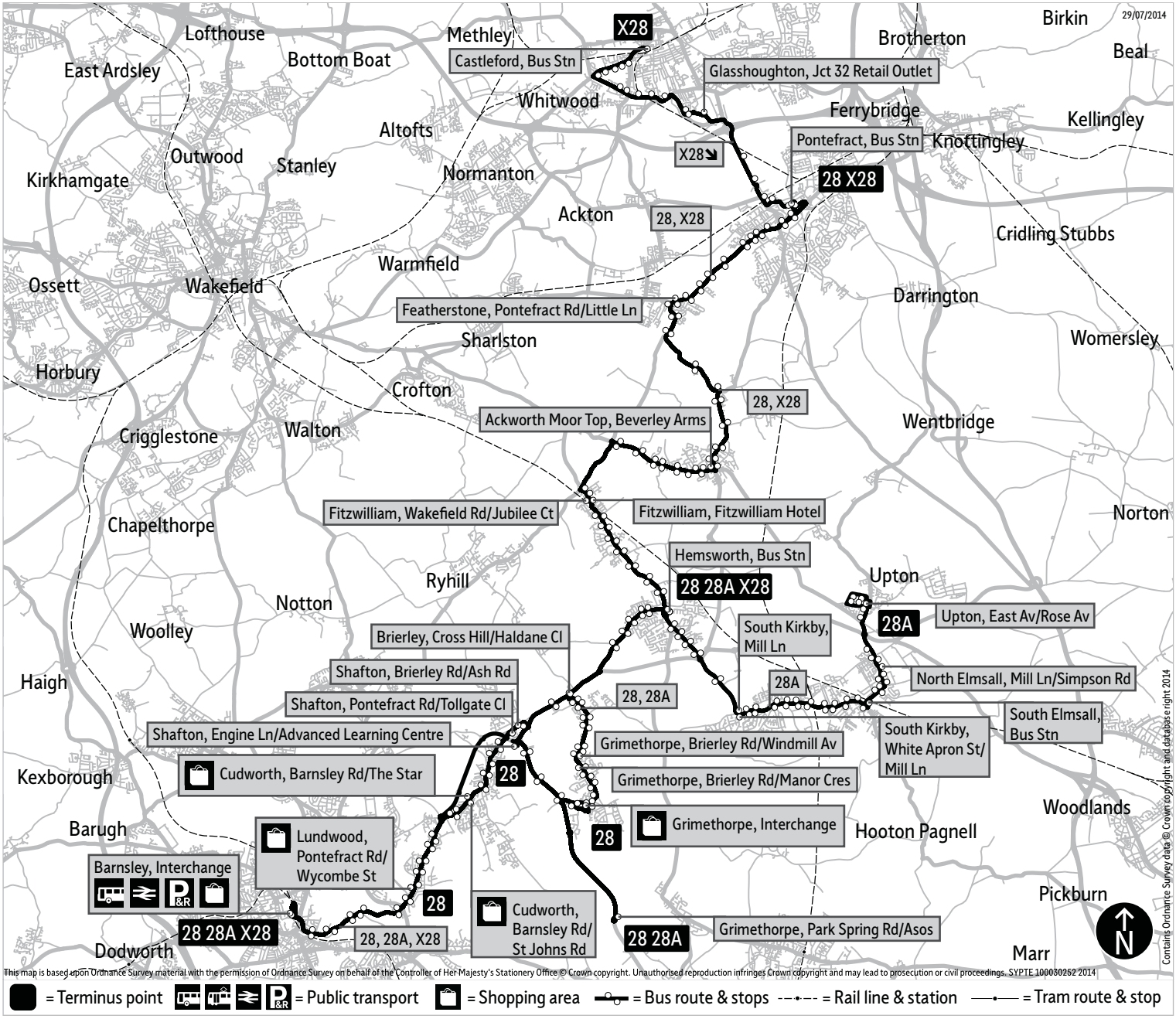
24 hour clock
Throughout South Yorkshire our timetables use the 24 hour clock to avoid confusion between am and pm times.

For example:
9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times



Bus route map for services 28, 28A and X28



Stopping points for service 28

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ Park Spring Road ▸ Acorn Way ▸ **Grimethorpe Interchange** ▸ St Lukes Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Cross Hill ▸ **Hemsworth** ▸ Barnsley Road ▸ **Hemsworth Bus Station** ▸ Wakefield Road ▸ **Kinsley** ▸ **Fitzwilliam** ▸ **Wragby** ▸ Doncaster Road ▸ **Ackworth Moor Top** ▸ Wakefield Road ▸ Barnsley Road ▸ **High Ackworth** ▸ Pontefract Road ▸ Purston Lane ▸ Ackworth Road ▸ **Featherstone** ▸ Hall Street ▸ Pontefract Road ▸ **Purston Jaglin** ▸ Wakefield Road ▸ Southgate ▸ **Pontefract, Bus Station**

Pontefract, Bus Station ▸ Southgate ▸ Wakefield Road ▸ **Purston Jaglin** ▸ Pontefract Road ▸ **Featherstone** ▸ Ackworth Road ▸ **High Ackworth** ▸ Purston Lane ▸ Pontefract Road ▸ **Ackworth Moor Top** ▸ Barnsley Road ▸ Wakefield Road ▸ Doncaster Road ▸ Wakefield Road ▸ Doncaster Road ▸ **Wragby** ▸ **Fitzwilliam** ▸ Wakefield Road ▸ **Kinsley** ▸ **Hemsworth** ▸ **Hemsworth Bus Station** ▸ Barnsley Road ▸ **Brierley** ▸ Cross Hill ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ **Grimethorpe** ▸ St Lukes Road ▸ **Grimethorpe Interchange** ▸ Acorn Way ▸ Park Spring Road ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service 28A

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ Park Spring Road ▸ Acorn Way ▸ **Grimethorpe Interchange** ▸ St Lukes Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Cross Hill ▸ **Hemsworth** ▸ Barnsley Road ▸ **Hemsworth Bus Station** ▸ Kirkby Road ▸ Hemsworth Road ▸ **South Kirkby** ▸ White Apron Street ▸ Barnsley Road ▸ **Moorthorpe** ▸ **South Elmsall** ▸ **South Elmsall Bus Station** ▸ High Street Ash Grove ▸ High Street ▸ **Minsthorpe** ▸ Mill Lane ▸ **North Elmsall** ▸ Minsthorpe Lane ▸ New Lane ▸ **Upton, East Avenue**

Upton, East Avenue ▸ Rose Avenue ▸ Common Lane ▸ **North Elmsall** ▸ Mill Lane ▸ **Minsthorpe** ▸ **South Elmsall** ▸ High Street ▸ **South Elmsall Bus Station** ▸ Barnsley Road ▸ **Moorthorpe** ▸ **South Kirkby** ▸ White Apron Street ▸ Hemsworth Road ▸ **Hemsworth** ▸ Kirkby Road ▸ **Hemsworth Bus Station** ▸ Barnsley Road ▸ **Brierley** ▸ Cross Hill ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ **Grimethorpe** ▸ St Lukes Road ▸ **Grimethorpe Interchange** ▸ Acorn Way ▸ Park Spring Road ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service X28

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Cross Hill ▸ **Hemsworth** ▸ Barnsley Road ▸ **Hemsworth Bus Station** ▸ Wakefield Road ▸ **Kinsley** ▸ **Fitzwilliam** ▸ **Wragby** ▸ Doncaster Road ▸ **Ackworth Moor Top** ▸ Wakefield Road ▸ Barnsley Road ▸ **High Ackworth** ▸ Pontefract Road ▸ Purston Lane ▸ Ackworth Road ▸ **Featherstone** ▸ Hall Street ▸ Pontefract Road ▸ **Purston Jaglin** ▸ Wakefield Road ▸ Southgate ▸ **Pontefract, Bus Station**

Castleford, Bus Station ▸ Lumley Street ▸ **Cutsyke** ▸ **Whitwood** ▸ Cutsyke Hill ▸ **Cutsyke** ▸ Leeds Barnsdale Road ▸ Leeds Road ▸ **Glasshoughton** ▸ Colorado Way ▸ Tomahawks Trail ▸ **Pontefract** ▸ Park Road ▸ Stuart Road ▸ **Pontefract Bus Station** ▸ Southgate ▸ Wakefield Road ▸ **Purston Jaglin** ▸ Pontefract Road ▸ **Featherstone** ▸ Ackworth Road ▸ **High Ackworth** ▸ Purston Lane ▸ Pontefract Road ▸ **Ackworth Moor Top** ▸ Barnsley Road ▸ Wakefield Road ▸ Doncaster Road ▸ Wakefield Road ▸ Doncaster Road ▸ **Wragby** ▸ **Fitzwilliam** ▸ Wakefield Road ▸ **Kinsley** ▸ **Hemsworth** ▸ **Hemsworth Bus Station** ▸ Barnsley Road ▸ **Brierley** ▸ Cross Hill ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Lundwood** ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

28, 28A, X28 ▸ Monday to Friday — Barnsley Centre ▸ Pontefract

Service number:		28	28	28	X28	28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28
See notes:							SD											
Barnsley, Interchange		0511	0608	–	0658	0706	0740	0758	0806	0903	0911	1003	1011	1103	1111	1203	1211	1303
Lundwood, Pontefract Rd/Wycombe St		0521	0618	0659	0708	0716	0750	0808	0816	0913	0921	1013	1021	1113	1121	1213	1221	1313
Cudworth, Barnsley Rd/The Star		0526	0623	0704	–	0721	0755	–	0821	–	0926	–	1026	–	1126	–	1226	–
Shafton, Brierley Rd/Ash Rd		0531	0628	0709	0715	0726	0800	0815	0826	0920	0931	1020	1031	1120	1131	1220	1231	1320
Shafton, Engine Ln/Advanced Learning Centre		–	–	–	–	–	0802	–	–	–	–	–	–	–	–	–	–	–
Grimethorpe, Park Spring Rd/ASOS		0537	0634	0715	–	0732	–	–	0832	–	0937	–	1037	–	1137	–	1237	–
Grimethorpe, Interchange	a.	–	0640	–	–	0738	–	–	0838	–	0943	–	1043	–	1143	–	1243	–
Grimethorpe, Interchange	d.	–	0641	–	–	0739	–	–	0842	–	0944	–	1044	–	1144	–	1244	–
Grimethorpe, Brierley Rd/Manor Cres		–	0644	–	–	0742	–	–	0845	–	0947	–	1047	–	1147	–	1247	–
Brierley, Cross Hill/Haldane Cl		–	0649	–	0718	0747	–	0818	0850	0923	0952	1023	1052	1123	1152	1223	1252	1323
Hemsworth, Bus Stn	a.	–	0658	–	0727	0756	–	0827	0859	0932	1001	1032	1101	1132	1201	1232	1301	1332
Hemsworth, Bus Stn	d.	–	0659	–	0727	0757	–	0827	0900	0932	1002	1032	1102	1132	1202	1232	1302	1332
Fitzwilliam, Wakefield Rd Jubilee Ct		–	0709	–	0737	0807	–	0837	0910	0942	1012	1042	1112	1142	1212	1242	1312	1342
Ackworth Moor Top, Beverley Arms		–	0714	–	0742	0812	–	0842	0915	0947	1017	1047	1117	1147	1217	1247	1317	1347
Featherstone, Pontefract Rd/Little Ln		–	0724	–	0752	0822	–	0852	0925	0957	1027	1057	1127	1157	1227	1257	1327	1357
Pontefract, Bus Stn		–	0733	–	0806	0836	–	0901	0936	1006	1036	1106	1136	1206	1236	1306	1336	1406

Notes: SD - Schooldays only.

28, 28A, X28 ▸ Monday to Friday (continued)

Barnsley Centre ▸ Pontefract

Service number:		28	X28	28	28	28	X28	28	X28	28	X28	X28	28A	28A	28A	28A	28A
See notes:				SH	SD	SD											
Barnsley, Interchange		1311	1403	1411	1411	–	1503	1511	1603	1616	1708	1814	1823	1923	2023	2123	2223
Lundwood, Pontefract Rd/Wycombe St		1321	1413	1421	1421	–	1514	1522	1614	1628	1721	1825	1832	1932	2032	2132	2232
Cudworth, Barnsley Rd/The Star		1326	–	1426	1426	–	–	1527	–	1633	–	–	1837	1937	2037	2137	2237
Shafton, Brierley Rd/Ash Rd		1331	1420	1431	1431	–	1521	1532	1621	1638	1728	1832	1841	1941	2041	2141	2241
Shafton, Engine Ln/Advanced Learning Centre		–	–	–	–	1445	–	–	–	–	–	–	–	–	–	–	–
Grimethorpe, Park Spring Rd/ASOS		1337	–	1437	1437	–	–	1538	–	1644	–	–	1847	1947	2047	2147	2247
Grimethorpe, Interchange	a.	1343	–	1443	–	1450	–	1544	–	1650	–	–	1852	1952	2052	2152	2252
Grimethorpe, Interchange	d.	1344	–	1444	–	1450	–	1545	–	1651	–	–	1852	1952	2052	2152	2252
Grimethorpe, Brierley Rd/Manor Cres		1347	–	1447	–	1453	–	1548	–	1654	–	–	1855	1955	2055	2155	2255
Brierley, Cross Hill/Haldane Cl		1352	1423	1452	–	1458	1524	1553	1624	1659	1731	1835	1859	1959	2059	2159	2259
Hemsworth, Bus Stn	a.	1401	1432	1501	–	1507	1533	1602	1633	1708	1740	1844	1905	2005	2105	2205	2305
Hemsworth, Bus Stn	d.	1402	1432	1508	–	1508	1533	1603	1633	1709	1740	1844	1906	2006	2106	2206	–
South Kirkby, Mill Ln		–	–	–	–	–	–	–	–	–	–	–	1911	2011	2111	2211	–
South Elmsall, Bus Stn		–	–	–	–	–	–	–	–	–	–	–	1918	2018	2118	2218	–
North Elmsall, Mill Ln/Simpson Rd		–	–	–	–	–	–	–	–	–	–	–	1920	2020	2120	–	–
Upton, East Av/Rose Av		–	–	–	–	–	–	–	–	–	–	–	1924	2024	2124	–	–
Fitzwilliam, Wakefield Rd/Jubilee Ct		1412	1442	1518	–	1518	1543	1613	1643	1719	1750	1854	–	–	–	–	–
Ackworth Moor Top, Beverley Arms		1417	1447	1523	–	1523	1548	1618	1648	1724	1755	1859	–	–	–	–	–
Featherstone, Pontefract Rd/Little Ln		1427	1457	1533	–	1533	1558	1628	1658	1734	1805	1909	–	–	–	–	–
Pontefract, Bus Stn		1436	1506	1542	–	1542	1607	1637	1707	1743	1814	1918	–	–	–	–	–

Notes: SD - Schooldays only, SH - School holidays only.

28, 28A, X28 ▸ Monday to Friday

Castleford ▸ Barnsley Centre

Service number:	28	28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28	28
Castleford, Enterprise Way	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Glasshoughton, Jct 32 Retail Outlet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pontefract, Bus Stn	–	–	0736	0812	0842	0912	0942	1012	1042	1112	1142	1212	1242	1312	1342	1412	–
Featherstone, Pontefract Rd/Little Ln	–	–	0745	0821	0851	0921	0951	1021	1051	1121	1151	1221	1251	1321	1351	1421	–
Ackworth Moor Top, Beverley Arms	–	–	0753	0829	0859	0929	0959	1029	1059	1129	1159	1229	1259	1329	1359	1429	–
Fitzwilliam, Fitzwilliam Hotel	–	–	0801	0837	0907	0937	1007	1037	1107	1137	1207	1237	1307	1337	1407	1437	–
Upton, East Av/Rose Av	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
North Elmsall, Mill Ln/Simpson Rd	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Elmsall, Bus Stn	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Kirkby, White Apron St/Mill Ln	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hemsworth, Bus Stn	0522	0712	0811	0847	0917	0947	1017	1047	1117	1147	1217	1247	1317	1347	1417	1447	–
Brierley, Cross Hill/Haldane Cl	0530	0720	0819	0855	0925	0955	1025	1055	1125	1155	1225	1255	1325	1355	1425	1455	–
Grimethorpe, Brierley Rd/Windmill Av	0534	0724	0823	–	0929	–	1029	–	1129	–	1229	–	1329	–	1429	–	–
Grimethorpe, Interchange	0538	0728	0827	–	0933	–	1033	–	1133	–	1233	–	1333	–	1433	–	1500
Grimethorpe, Park Spring Rd/ASOS	0543	0733	0832	–	0938	–	1038	–	1138	–	1238	–	1338	–	1438	–	1508
Shafton, Pontefract Rd/Tollgate Cl	0549	0739	0838	0858	0944	0958	1044	1058	1144	1158	1244	1258	1344	1358	1444	1458	1514
Cudworth, Barnsley Rd/St Johns Rd	0554	0744	0843	–	0949	–	1049	–	1149	–	1249	–	1349	–	1449	–	1519
Lundwood, Pontefract Rd/Wycombe St	0558	0748	0847	0905	0953	1005	1053	1105	1153	1205	1253	1305	1353	1405	1453	1505	1523
Barnsley, Interchange	0607	0757	0857	0914	1002	1014	1102	1114	1202	1214	1302	1314	1402	1414	1502	1514	1532

28, 28A, X28 ▸ Monday to Friday (continued)

Castleford ▸ Barnsley Centre

Service number:	28	X28	28	X28	28	X28	28	X28	28A	28A	28A	X28	28A	X28	28A
Castleford, Enterprise Way	–	–	–	–	–	–	–	–	–	–	–	2105	–	2205	–
Glasshoughton, Jct 32 Retail Outlet	–	–	–	–	–	–	–	–	–	–	–	2117	–	2217	–
Pontefract, Bus Stn	1442	1517	1547	1617	1647	1720	1750	1820	–	–	–	2125	–	2225	–
Featherstone, Pontefract Rd/Little Ln	1451	1526	1556	1626	1656	1729	1759	1829	–	–	–	2134	–	2234	–
Ackworth Moor Top, Beverley Arms	1459	1534	1604	1634	1704	1737	1807	1837	–	–	–	2142	–	2242	–
Fitzwilliam, Fitzwilliam Hotel	1507	1542	1612	1642	1712	1745	1815	1845	–	–	–	2147	–	2247	–
Upton, East Av/Rose Av	–	–	–	–	–	–	–	–	1928	2028	2128	–	–	–	–
North Elmsall, Mill Ln/Simpson Rd	–	–	–	–	–	–	–	–	1932	2032	2132	–	–	–	–
South Elmsall, Bus Stn	–	–	–	–	–	–	–	–	1934	2034	2134	–	2230	–	–
South Kirkby, White Apron St/Mill Ln	–	–	–	–	–	–	–	–	1941	2041	2141	–	2237	–	–
Hemsworth, Bus Stn	1517	1552	1622	1652	1722	1755	1825	1855	1949	2049	2149	2155	2245	2255	–
Brierley, Cross Hill/Haldane Cl	1525	1600	1630	1700	1730	1803	1833	1903	1955	2055	2155	2201	2251	2301	–
Grimethorpe, Brierley Rd/Windmill Av	1529	–	1634	–	1734	–	1837	–	1958	2058	2158	–	2254	–	–
Grimethorpe, Interchange	1533	–	1638	–	1738	–	1841	–	2002	2102	2202	–	2258	–	–
Grimethorpe, Park Spring Rd/ASOS	1538	–	1643	–	1743	–	1846	–	2008	2108	2208	–	2308	–	2318
Shafton, Pontefract Rd/Tollgate Cl	1544	1603	1649	1703	1749	1806	1852	1906	2014	2114	2214	2204	2314	2304	2324
Cudworth, Barnsley Rd/St Johns Rd	1549	–	1654	–	1754	–	1857	–	2018	2118	2218	–	2318	–	2328
Lundwood, Pontefract Rd/Wycombe St	1553	1610	1658	1710	1758	1813	1901	1913	2022	2122	2222	2211	2322	2311	2332
Barnsley, Interchange	1602	1619	1707	1719	1807	1822	1910	1922	2030	2130	2230	2220	2330	2320	2340

28, 28A, X28 ▸ Saturday

Barnsley Centre ▸ Pontefract

Service number:		28	28	28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28
Barnsley, Interchange		0507	0610	0649	0706	0803	0811	0903	0911	1003	1011	1103	1111	1203	1211	1303	1311	1403
Lundwood, Pontefract Rd/Wycombe St		0517	0620	0659	0716	0813	0821	0913	0921	1013	1021	1113	1121	1213	1221	1313	1321	1413
Cudworth, Barnsley Rd/The Star		0522	0625	0704	0721	–	0826	–	0926	–	1026	–	1126	–	1226	–	1326	–
Shafton, Brierley Rd/Ash Rd		0527	0630	0709	0726	0820	0831	0920	0931	1020	1031	1120	1131	1220	1231	1320	1331	1420
Grimethorpe, Park Spring Rd/ASOS		0533	0636	0715	0732	–	0837	–	0937	–	1037	–	1137	–	1237	–	1337	–
Grimethorpe, Interchange	a.	0538	0642	–	0738	–	0843	–	0943	–	1043	–	1143	–	1243	–	1343	–
Grimethorpe, Interchange	d.	–	0643	–	0739	–	0844	–	0944	–	1044	–	1144	–	1244	–	1344	–
Grimethorpe, Brierley Rd/Manor Cres		–	0646	–	0742	–	0847	–	0947	–	1047	–	1147	–	1247	–	1347	–
Brierley, Cross Hill/Haldane Cl		–	0651	–	0747	0823	0852	0923	0952	1023	1052	1123	1152	1223	1252	1323	1352	1423
Hemsworth, Bus Stn	a.	–	0700	–	0756	0832	0901	0932	1001	1032	1101	1132	1201	1232	1301	1332	1401	1432
Hemsworth, Bus Stn	d.	–	–	–	0757	0832	0902	0932	1002	1032	1102	1132	1202	1232	1302	1332	1402	1432
Fitzwilliam, Wakefield Rd/Jubilee Ct		–	–	–	0807	0842	0912	0942	1012	1042	1112	1142	1212	1242	1312	1342	1412	1442
Ackworth Moor Top, Beverley Arms		–	–	–	0812	0847	0917	0947	1017	1047	1117	1147	1217	1247	1317	1347	1417	1447
Featherstone, Pontefract Rd/Little Ln		–	–	–	0822	0857	0927	0957	1027	1057	1127	1157	1227	1257	1327	1357	1427	1457
Pontefract, Bus Stn		–	–	–	0836	0906	0936	1006	1036	1106	1136	1206	1236	1306	1336	1406	1436	1506

28, 28A, X28 ▸ Saturday (continued)

Barnsley Centre ▸ Pontefract

Service number:		28	X28	28	X28	28	X28	X28	28A	28A	28A	28A	28A
Barnsley, Interchange		1411	1503	1511	1603	1616	1708	1814	1823	1923	2023	2123	2223
Lundwood, Pontefract Rd/Wycombe St		1421	1514	1522	1614	1628	1721	1825	1832	1932	2032	2132	2232
Cudworth, Barnsley Rd/The Star		1426	–	1527	–	1633	–	–	1837	1937	2037	2137	2237
Shafton, Brierley Rd/Ash Rd		1431	1521	1532	1621	1638	1728	1832	1841	1941	2041	2141	2241
Grimethorpe, Park Spring Rd/ASOS		1437	–	1538	–	1644	–	–	1847	1947	2047	2147	2247
Grimethorpe, Interchange	a.	1443	–	1544	–	1650	–	–	1852	1952	2052	2152	2252
Grimethorpe, Interchange	d.	1444	–	1545	–	1651	–	–	1852	1952	2052	2152	2252
Grimethorpe, Brierley Rd/Manor Cres		1447	–	1548	–	1654	–	–	1855	1955	2055	2155	2255
Brierley, Cross Hill/Haldane Cl		1452	1524	1553	1624	1659	1731	1835	1859	1959	2059	2159	2259
Hemsworth, Bus Stn	a.	1501	1533	1602	1633	1708	1740	1844	1905	2005	2105	2205	2305
Hemsworth, Bus Stn	d.	1502	1533	1603	1633	1709	1740	1844	1906	2006	2106	2206	–
South Kirkby, Mill Ln		–	–	–	–	–	–	–	1911	2011	2111	2211	–
South Elmsall, Bus Stn		–	–	–	–	–	–	–	1918	2018	2118	2218	–
North Elmsall, Mill Ln/Simpson Rd		–	–	–	–	–	–	–	1920	2020	2120	–	–
Upton, East Av/Rose Av		–	–	–	–	–	–	–	1924	2024	2124	–	–
Fitzwilliam, Wakefield Rd/Jubilee Ct		1512	1543	1613	1643	1719	1750	1854	–	–	–	–	–
Ackworth Moor Top, Beverley Arms		1517	1548	1618	1648	1724	1755	1859	–	–	–	–	–
Featherstone, Pontefract Rd/Little Ln		1527	1558	1628	1658	1734	1805	1909	–	–	–	–	–
Pontefract, Bus Stn		1536	1607	1637	1707	1743	1814	1918	–	–	–	–	–

28, 28A, X28 ▸ Saturday

Castleford ▸ Barnsley Centre

Service number:	28	28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28	28	X28	28
Castleford,Enterprise Way	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Glasshoughton, Jct 32 Retail Outlet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Pontefract, Bus Stn	–	–	–	–	0842	0912	0942	1012	1042	1112	1142	1212	1242	1312	1342	1412	–
Featherstone, Pontefract Rd/Little Ln	–	–	–	–	0851	0921	0951	1021	1051	1121	1151	1221	1251	1321	1351	1421	–
Ackworth Moor Top, Beverley Arms	–	–	–	–	0859	0929	0959	1029	1059	1129	1159	1229	1259	1329	1359	1429	–
Fitzwilliam, Fitzwilliam Hotel	–	–	–	–	0907	0937	1007	1037	1107	1137	1207	1237	1307	1337	1407	1437	–
Upton, East Av/Rose Av	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
North Elmsall, Mill Ln/Simpson Rd	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Elmsall, Bus Stn	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
South Kirkby, White Apron St/Mill Ln	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Hemsworth, Bus Stn	–	0712	0811	0847	0917	0947	1017	1047	1117	1147	1217	1247	1317	1347	1417	1447	–
Brierley, Cross Hill/Haldane Cl	–	0720	0819	0855	0925	0955	1025	1055	1125	1155	1225	1255	1325	1355	1425	1455	–
Grimethorpe, Brierley Rd/Windmill Av	–	0724	0823	–	0929	–	1029	–	1129	–	1229	–	1329	–	1429	–	–
Grimethorpe, Interchange	0538	0728	0827	–	0933	–	1033	–	1133	–	1233	–	1333	–	1433	–	1500
Grimethorpe, Park Spring Rd/ASOS	0543	0733	0832	–	0938	–	1038	–	1138	–	1238	–	1338	–	1438	–	1508
Shafton, Pontefract Rd/Tollgate Cl	0549	0739	0838	0858	0944	0958	1044	1058	1144	1158	1244	1258	1344	1358	1444	1458	1514
Cudworth, Barnsley Rd/St Johns Rd	0554	0744	0843	–	0949	–	1049	–	1149	–	1249	–	1349	–	1449	–	1519
Lundwood, Pontefract Rd/Wycombe St	0558	0748	0847	0905	0953	1005	1053	1105	1153	1205	1253	1305	1353	1405	1453	1505	1523
Barnsley, Interchange	0607	0757	0857	0914	1002	1014	1102	1114	1202	1214	1302	1314	1402	1414	1502	1514	1532

28, 28A, X28 ▸ Saturday (continued)

Castleford ▸ Barnsley Centre

Service number:	28	X28	28	X28	28	X28	28	X28	28A	28A	28A	X28	28A	X28	28A
Castleford, Enterprise Way	–	–	–	–	–	–	–	–	–	–	–	2105	–	2205	–
Glasshoughton, Jct 32 Retail Outlet	–	–	–	–	–	–	–	–	–	–	–	2117	–	2217	–
Pontefract, Bus Stn	1442	1517	1547	1617	1647	1720	1750	1820	–	–	–	2125	–	2225	–
Featherstone, Pontefract Rd/Little Ln	1451	1526	1556	1626	1656	1729	1759	1829	–	–	–	2134	–	2234	–
Ackworth Moor Top, Beverley Arms	1459	1534	1604	1634	1704	1737	1807	1837	–	–	–	2142	–	2242	–
Fitzwilliam, Fitzwilliam Hotel	1507	1542	1612	1642	1712	1745	1815	1845	–	–	–	2147	–	2247	–
Upton, East Av/Rose Av	–	–	–	–	–	–	–	–	1928	2028	2128	–	–	–	–
North Elmsall, Mill Ln/Simpson Rd	–	–	–	–	–	–	–	–	1932	2032	2132	–	–	–	–
South Elmsall, Bus Stn	–	–	–	–	–	–	–	–	1934	2034	2134	–	2230	–	–
South Kirkby, White Apron St/Mill Ln	–	–	–	–	–	–	–	–	1941	2041	2141	–	2237	–	–
Hemsworth, Bus Stn	1517	1552	1622	1652	1722	1755	1825	1855	1949	2049	2149	2155	2245	2255	–
Brierley, Cross Hill/Haldane Cl	1525	1600	1630	1700	1730	1803	1833	1903	1955	2055	2155	2201	2251	2301	–
Grimethorpe, Brierley Rd/Windmill Av	1529	–	1634	–	1734	–	1837	–	1958	2058	2158	–	2254	–	–
Grimethorpe, Interchange	1533	–	1638	–	1738	–	1841	–	2002	2102	2202	–	2258	–	–
Grimethorpe, Park Spring Rd/ASOS	1538	–	1643	–	1743	–	1846	–	2008	2108	2208	–	2308	–	2318
Shafton, Pontefract Rd/Tollgate Cl	1544	1603	1649	1703	1749	1806	1852	1906	2014	2114	2214	2204	2314	2304	2324
Cudworth, Barnsley Rd/St Johns Rd	1549	–	1654	–	1754	–	1857	–	2018	2118	2218	–	2318	–	2328
Lundwood, Pontefract Rd/Wycombe St	1553	1610	1658	1710	1758	1813	1901	1913	2022	2122	2222	2211	2322	2311	2332
Barnsley, Interchange	1602	1619	1707	1719	1807	1822	1910	1922	2030	2130	2230	2220	2330	2320	2340

28, 28A ▸ Sunday

Barnsley Centre ▸ Upton

Service number:		28	28	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A
Barnsley, Interchange		0518	0625	0823	0923	1023	1123	1223	1323	1423	1523	1623	1723	1823	1923	2023	2123	2223
Lundwood, Pontefract Rd/Wycombe St		0525	0632	0832	0932	1032	1132	1232	1332	1432	1532	1632	1732	1832	1932	2032	2132	2232
Cudworth, Barnsley Rd/The Star		0530	0637	0837	0937	1037	1137	1237	1337	1437	1537	1637	1737	1837	1937	2037	2137	2237
Shafton, Brierley Rd/Ash Rd		0534	0641	0841	0941	1041	1141	1241	1341	1441	1541	1641	1741	1841	1941	2041	2141	2241
Grimethorpe, Park Spring Rd/ASOS		0540	0647	0847	0947	1047	1147	1247	1347	1447	1547	1647	1747	1847	1947	2047	2147	2247
Grimethorpe, Interchange		0545	–	0852	0952	1052	1152	1252	1352	1452	1552	1652	1752	1852	1952	2052	2152	2252
Grimethorpe, Brierley Rd/Manor Cres		–	–	0855	0955	1055	1155	1255	1355	1455	1555	1655	1755	1855	1955	2055	2155	2255
Brierley, Cross Hill/Haldane Cl		–	–	0859	0959	1059	1159	1259	1359	1459	1559	1659	1759	1859	1959	2059	2159	2259
Hemsworth, Bus Stn	a.	–	–	0905	1005	1105	1205	1305	1405	1505	1605	1705	1805	1905	2005	2105	2205	2305
Hemsworth, Bus Stn	d.	–	–	0906	1006	1106	1206	1306	1406	1506	1606	1706	1806	1906	2006	2106	2206	–
South Kirkby, Mill Ln		–	–	0911	1011	1111	1211	1311	1411	1511	1611	1711	1811	1911	2011	2111	2211	–
South Elmsall, Bus Stn		–	–	0918	1018	1118	1218	1318	1418	1518	1618	1718	1818	1918	2018	2118	2218	–
North Elmsall, Mill Ln/Simpson Rd		–	–	0920	1020	1120	1220	1320	1420	1520	1620	1720	1820	1920	2020	2120	2220	–
Upton, East Av/Rose Av		–	–	0924	1024	1124	1224	1324	1424	1524	1624	1724	1824	1924	2024	2124	2224	–

28A, X28 ▸ Sunday

Castleford ▸ Barnsley Centre

Service number:	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	28A	X28	28A
Castleford, Enterprise Way	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2105	–
Glasshoughton, Jct 32 Retail Outlet	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2117	–
Pontefract, Bus Stn	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2125	–
Featherstone, Pontefract Rd/Little Ln	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2134	–
Ackworth Moor Top, Beverley Arms	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2142	–
Fitzwilliam, Fitzwilliam Hotel	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2147	–
Upton, East Av/Rose Av	–	–	0928	1028	1128	1228	1328	1428	1528	1628	1728	1828	1928	2028	2128	–	2228
North Elmsall, Mill Ln/Simpson Rd	–	–	0932	1032	1132	1232	1332	1432	1532	1632	1732	1832	1932	2032	2132	–	2232
South Elmsall, Bus Stn	–	–	0934	1034	1134	1234	1334	1434	1534	1634	1734	1834	1934	2034	2134	–	2234
South Kirkby, White Apron St/Mill Ln	–	–	0941	1041	1141	1241	1341	1441	1541	1641	1741	1841	1941	2041	2141	–	2241
Hemsworth, Bus Stn	–	–	0949	1049	1149	1249	1349	1449	1549	1649	1749	1849	1949	2049	2149	2155	2249
Brierley, Cross Hill/Haldane Cl	–	–	0955	1055	1155	1255	1355	1455	1555	1655	1755	1855	1955	2055	2155	2201	2255
Grimethorpe, Brierley Rd/Windmill Av	–	–	0958	1058	1158	1258	1358	1458	1558	1658	1758	1858	1958	2058	2158	–	2258
Grimethorpe, Interchange	–	–	1002	1102	1202	1302	1402	1502	1602	1702	1802	1902	2002	2102	2202	–	2302
Grimethorpe, Park Spring Rd/ASOS	0606	0710	1008	1108	1208	1308	1408	1508	1608	1708	1808	1908	2008	2108	2208	–	2308
Grimethorpe, Interchange	–	0715	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Shafton, Pontefract Rd/Tollgate Cl	0611	0721	1014	1114	1214	1314	1414	1514	1614	1714	1814	1914	2014	2114	2214	2204	2314
Cudworth, Barnsley Rd/St Johns Rd	0615	0725	1018	1118	1218	1318	1418	1518	1618	1718	1818	1918	2018	2118	2218	–	2318
Lundwood, Pontefract Rd/Wycombe St	0619	0729	1022	1122	1222	1322	1422	1522	1622	1722	1822	1922	2022	2122	2222	2211	2322
Barnsley, Interchange	0624	0737	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2220	2330

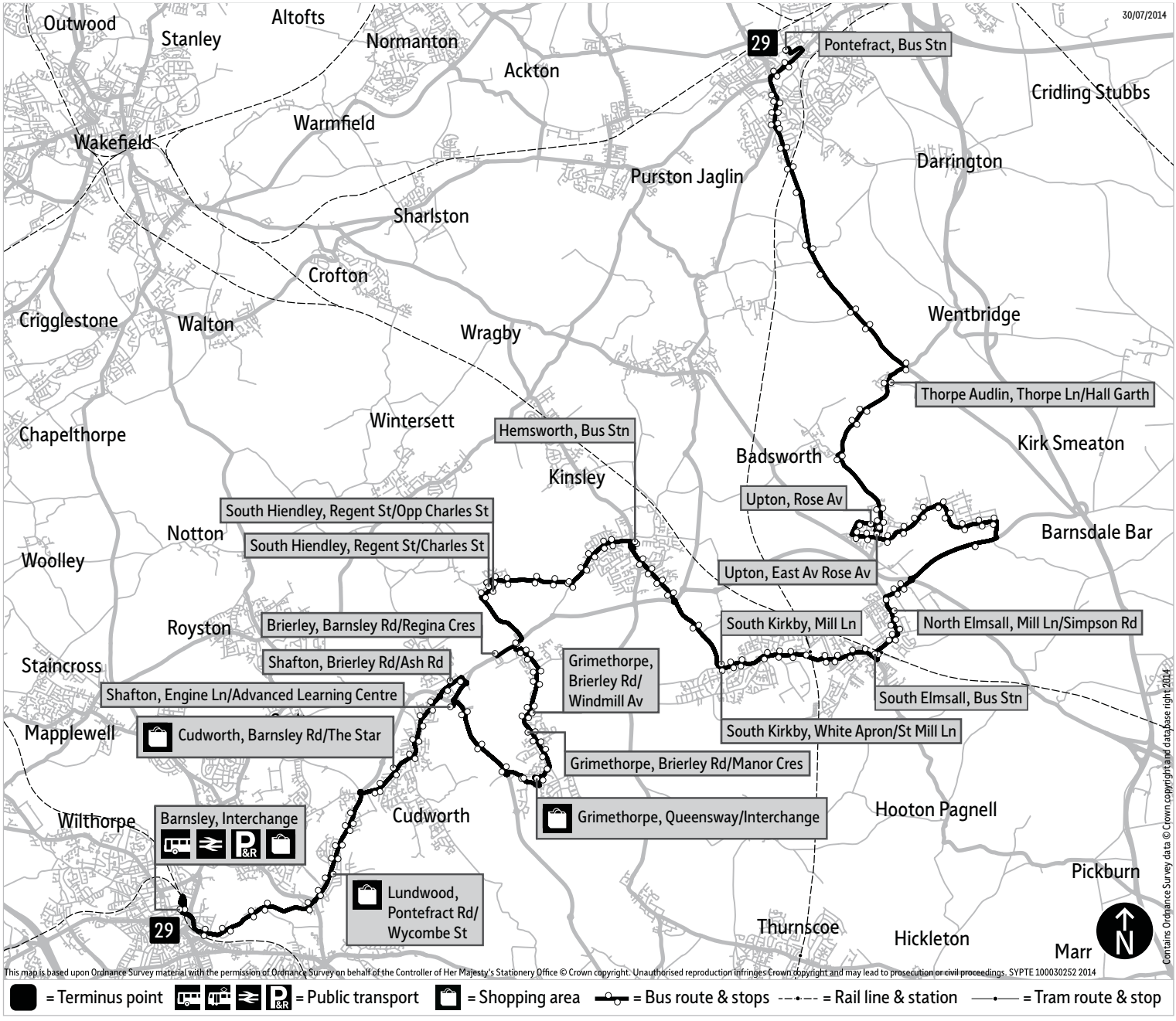
28A, X28 ▸ Sunday (continued)

Grimethorpe ▸ Barnsley Centre

Service number:	28A
Castleford, Enterprise Way	–
Glasshoughton, Jct 32 Retail Outlet	–
Pontefract, Bus Stn	–
Featherstone, Pontefract Rd/Little Ln	–
Ackworth Moor Top, Beverley Arms	–
Fitzwilliam, Fitzwilliam Hotel	–
Upton, East Av/Rose Av	–
North Elmsall, Mill Ln/Simpson Rd	–
South Elmsall, Bus Stn	–
South Kirkby, White Apron St/Mill Ln	–
Hemsworth, Bus Stn	–
Brierley, Cross Hill/Haldane Cl	–
Grimethorpe, Brierley Rd/Windmill Av	–
Grimethorpe, Interchange	–
Grimethorpe, Park Spring Rd/ASOS	2308
Grimethorpe, Interchange	–
Shafton, Pontefract Rd/Tollgate Cl	2314
Cudworth, Barnsley Rd/St Johns Rd	2318
Lundwood, Pontefract Rd/Wycombe St	2322
Barnsley, Interchange	2330

Notes: a. - Arrival time, d. - Departure time.

Bus route map for service 29



Stopping points for service 29

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ Acorn Way ▸ Queensway ▸ St Lukes Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Cross Hill ▸ **South Hiendley** ▸ Regent Street ▸ Elizabeth Avenue ▸ Robin Lane ▸ High Street ▸ Robin Lane ▸ Barnsley Road ▸ **Hemsworth, Bus Station** ▸ Kirkby Road ▸ Hemsworth Road ▸ **South Kirkby** ▸ White Apron Street ▸ Barnsley Road ▸ **Moorthorpe** ▸ **South Elmsall, Bus Station** ▸ High Street ▸ **Minsthorpe** ▸ Mill Lane ▸ **North Elmsall** ▸ Dale Lane ▸ **Wrangbrook** ▸ Wrangbrook Lane ▸ Tom Wood Ash Lane ▸ Wrangbrook Road ▸ Waggon Lane ▸ **Upton** ▸ High Street ▸ Common Lane ▸ Rose Avenue ▸ East Avenue ▸ Field Lane ▸ **Badsworth** ▸ Beaconfield Road ▸ Thorpe Lane ▸ **Thorpe Audlin** ▸ Doncaster Road ▸ **East Hardwick** ▸ Whitegate Hill ▸ Hardwick Road ▸ **Carleton** ▸ Ackworth Road ▸ Mill Hill Road ▸ Southgate ▸ **Pontefract, Bus Station**

Pontefract, Bus Station ▸ Southgate ▸ Ackworth Road ▸ **Carleton** ▸ Hardwick Road ▸ **East Hardwick** ▸ Doncaster Road ▸ **Thorpe Audlin** ▸ Thorpe Lane ▸ **Badsworth** ▸ Beaconfield Road ▸ **Upton** ▸ Field Lane ▸ East Avenue ▸ Rose Avenue ▸ Common Lane ▸ High Street ▸ Waggon Lane ▸ Wrangbrook Road ▸ **Wrangbrook** ▸ Tom Wood Ash Lane ▸ Wrangbrook Lane ▸ **North Elmsall** ▸ Dale Lane ▸ Mill Lane ▸ **Minsthorpe** ▸ **South Elmsall** ▸ High Street ▸ **South Elmsall, Bus Station** ▸ Barnsley Road ▸ **Moorthorpe** ▸ **South Kirkby** ▸ White Apron Street ▸ Hemsworth Road ▸ Kirkby Road ▸ **Hemsworth, Bus Station** ▸ Barnsley Road ▸ Robin Lane ▸ **South Hiendley** ▸ High Street ▸ Elizabeth Avenue ▸ Regent Street ▸ **Brierley** ▸ Cross Hill ▸ Church Street ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ **Grimethorpe** ▸ St Lukes Road ▸ Queensway ▸ Acorn Way ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

29 ▸ Monday to Saturday

Barnsley Centre ▸ Pontefract

Barnsley, Interchange	0641	0746	0851	0951	1051	1151	1251	1351	1451	1551	1656	1716	1803
Lundwood, Pontefract Rd/Wycombe St	0651	0756	0901	1001	1101	1201	1301	1401	1501	1602	1708	1729	1812
Cudworth, Barnsley Rd/The Star	0656	0801	0906	1006	1106	1206	1306	1406	1506	1607	1713	1734	1817
Shafton, Brierley Rd/Ash Rd	0701	0806	0911	1011	1111	1211	1311	1411	1511	1612	1718	1739	1822
Grimethorpe, Interchange	0707	0812	0917	1017	1117	1217	1317	1417	1517	1618	1724	1745	1828
Grimethorpe, Brierley Rd/Manor Cres	0710	0815	0920	1020	1120	1220	1320	1420	1520	1621	1727	1748	1831
Brierley, Cross Hill/Haldane Cl	0715	0820	0925	1025	1125	1225	1325	1425	1525	1626	1732	1753	1836
South Hiendley, Regent St/Charles St	0717	0822	0927	1027	1127	1227	1327	1427	1527	1628	1734	1755	1838
Hemsworth, Bus Stn	0728	0833	0938	1038	1138	1238	1338	1438	1538	1639	1745	1806	1849
South Kirkby, Mill Ln	0734	0839	0944	1044	1144	1244	1344	1444	1544	1645	1751	1812	1855
South Elmsall, Bus Stn	0743	0848	0953	1053	1153	1253	1353	1453	1553	1654	1800	1821	1904
North Elmsall, Mill Ln/Simpson Rd	0746	0851	0956	1056	1156	1256	1356	1456	1556	1657	1803	–	1907
Wrangbrook, Tom Wood Ash Ln/Bell St	0754	0859	1004	1104	1204	1304	1404	1504	1604	1705	1811	–	1915
Upton, Rose Av	0800	0905	1010	1110	1210	1310	1410	1510	1610	1711	1817	–	1921
Thorpe Audlin, Hall Garth Rd	0808	0913	1018	1118	1218	1318	1418	1518	1618	1719	–	–	–
Pontefract, Bus Stn	0824	0929	1034	1134	1234	1334	1434	1534	1634	1735	–	–	–

29 ▸ Monday to Saturday

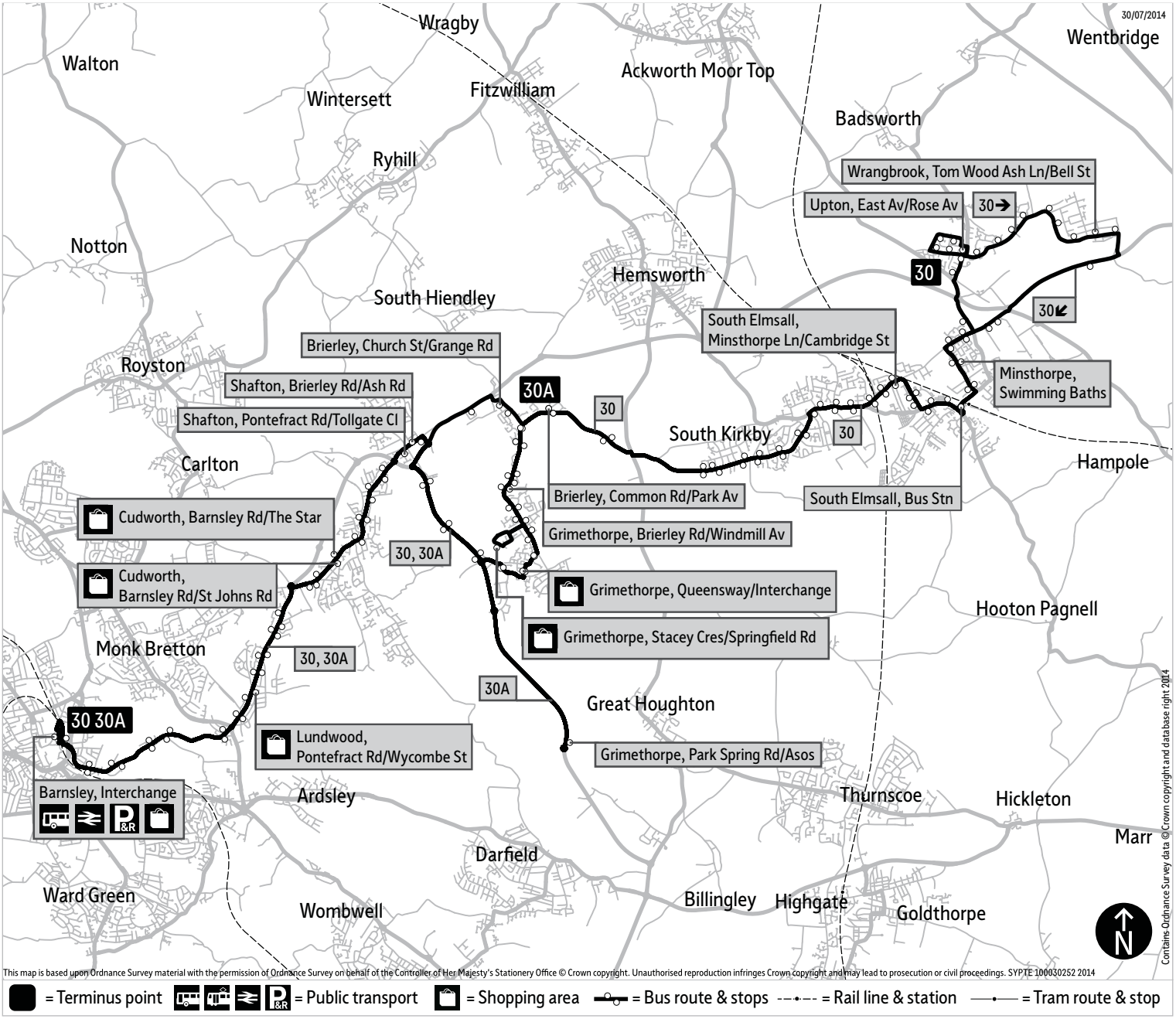
Pontefract ▸ Barnsley Centre

See notes:	SD	NS											
Pontefract, Bus Stn	–	–	–	0843	0943	1043	1143	1243	1343	1448	1548	1648	1748
Thorpe Audlin, Thorpe Ln/Hall Garth	–	–	–	0857	0957	1057	1157	1257	1357	1502	1602	1702	1802
Upton, East Av/Rose Av	–	0659	0805	0905	1005	1105	1205	1305	1405	1510	1610	1710	1810
Wrangbrook, Tom Wood Ash Ln/Bell St	–	0705	0811	0911	1011	1111	1211	1311	1411	1516	1616	1716	1816
North Elmsall, Mill Ln/Simpson Rd	–	0714	0820	0920	1020	1120	1220	1320	1420	1525	1625	1725	1825
South Elmsall, Bus Stn	–	0716	0822	0922	1022	1122	1222	1322	1422	1527	1627	1727	1827
South Kirkby, White Apron St/Mill Ln	–	0723	0829	0929	1029	1129	1229	1329	1429	1534	1634	1734	1834
Hemsworth, Bus Stn	–	0731	0837	0937	1037	1137	1237	1337	1437	1542	1642	1742	1842
South Hiendley, Regent St/Charles St	–	0739	0845	0945	1045	1145	1245	1345	1445	1550	1650	1750	1850
Brierley, Cross Hill/Haldane Cl	–	0743	0849	0949	1049	1149	1249	1349	1449	1554	1654	1754	1854
Brierley, Barnsley Rd/Regina Cres	0740	–	–	–	–	–	–	–	–	–	–	–	–
Grimethorpe, Brierley Rd/Windmill Av	0745	0748	0854	0954	1054	1154	1254	1354	1454	1559	1659	1759	1859
Grimethorpe, Interchange	0752	0752	0858	0958	1058	1158	1258	1358	1458	1603	1703	1803	1903
Shafton, Engine Ln/Advanced Learning Centre	0758	–	–	–	–	–	–	–	–	–	–	–	–
Shafton, Pontefract Rd/Tollgate Cl	–	0758	0904	1004	1104	1204	1304	1404	1504	1609	1709	1809	1909
Cudworth, Barnsley Rd/St Johns Rd	–	0803	0909	1009	1109	1209	1309	1409	1509	1614	1714	1814	1914
Lundwood, Pontefract Rd/Wycombe St	–	0807	0913	1013	1113	1213	1313	1413	1513	1618	1718	1818	1918
Barnsley, Interchange	–	0817	0922	1022	1122	1222	1322	1422	1522	1627	1727	1827	1927

No Service Sunday

Notes: SD - Schooldays only, NS - Not Saturdays.

Bus route map for services 30 and 30A



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= Terminus point | = Public transport | = Shopping area | = Bus route & stops | = Rail line & station | = Tram route & stop

Stopping points for service 30

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ Acorn Way ▸ Queensway ▸ St Lukes Road ▸ Brierley Road ▸ Stacey Crescent ▸ Brierley Road ▸ **Brierley** ▸ Common Road ▸ **South Kirkby** ▸ Stockingate ▸ Barnsley Road ▸ **Moorthorpe** ▸ Minsthorpe Lane ▸ Little Lane ▸ Barnsley Road ▸ **South Elmsall, Bus Station** ▸ Ash Grove ▸ **Minsthorpe** ▸ Minsthorpe Lane ▸ **North Elmsall** ▸ New Lane ▸ **Upton, East Avenue**

Upton, East Avenue ▸ Rose Avenue ▸ Common Lane ▸ High Street ▸ Waggon Lane ▸ **North Elmsall** ▸ Wrangbrook Road ▸ **Wrangbrook** ▸ Tom Wood Ash Lane ▸ Wrangbrook Lane ▸ **North Elmsall** ▸ Dale Lane ▸ Minsthorpe Lane ▸ **Minsthorpe** ▸ Ash Grove ▸ **South Elmsall, Bus Station** ▸ Barnsley Road ▸ Little Lane ▸ Minsthorpe Lane ▸ **Moorthorpe** ▸ **South Kirkby** ▸ Barnsley Road ▸ White Apron Street ▸ Stockingate ▸ Common Road ▸ **Brierley** ▸ Brierley Road ▸ **Grimethorpe** ▸ **Brierley** ▸ **Grimethorpe** ▸ St Lukes Road ▸ Queensway ▸ Acorn Way ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service 30A

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ Park Spring Road ▸ Acorn Way ▸ Queensway ▸ St Lukes Road ▸ Brierley Road ▸ **Brierley, Common Road**

Brierley, Common Road ▸ Brierley Road ▸ **Grimethorpe** ▸ St Lukes Road ▸ Queensway ▸ Acorn Way ▸ Park Spring Road ▸ Acorn Way ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

30, 30A ▸ Monday to Saturday

Barnsley Centre ▸ Upton

Service number:	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30A
See notes:	SD	SSH															
Barnsley, Interchange	0718	0726	0831	0931	1031	1131	1231	1331	1431	1531	1636	1753	1853	1953	2053	2153	2303
Lundwood, Pontefract Rd/Wycombe St	0728	0736	0841	0941	1041	1141	1241	1341	1441	1542	1648	1802	1902	2002	2102	2202	2312
Cudworth, Barnsley Rd/The Star	0733	0741	0846	0946	1046	1146	1246	1346	1446	1547	1653	1807	1907	2007	2107	2207	2317
Shafton, Brierley Rd/Ash Rd	0738	0746	0851	0951	1051	1151	1251	1351	1451	1552	1658	1812	1912	2012	2112	2212	2322
Grimethorpe, Park Spring Rd/ASOS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2327
Grimethorpe, Interchange	–	0752	0857	0957	1057	1157	1257	1357	1457	1558	1704	1818	1918	2018	2118	2218	2330
Grimethorpe, Stacey Cres/Springfield Rd	–	0755	0900	1000	1100	1200	1300	1400	1500	1601	1707	–	–	–	–	–	–
Grimethorpe, Brierley Rd/Manor Cres	–	0758	0903	1003	1103	1203	1303	1403	1503	1604	1710	1821	1921	2021	2121	2221	2333
Brierley, Common Rd/Park Av	–	0803	0908	1008	1108	1208	1308	1408	1508	1609	1715	1826	1926	2026	2126	2226	2338
South Elmsall, Minsthorpe Ln/Cambridge St	–	0814	0919	1019	1119	1219	1319	1419	1519	1620	1726	–	–	–	–	–	–
South Elmsall, Bus Stn	–	0820	0925	1025	1125	1225	1325	1425	1525	1626	1732	–	–	–	–	–	–
Minsthorpe, Swimming Baths	–	0823	0928	1028	1128	1228	1328	1428	1528	1629	1735	–	–	–	–	–	–
Upton, East Av/Rose Av	–	0827	0932	1032	1132	1232	1332	1432	1532	1633	1739	–	–	–	–	–	–

Notes: SD - Schooldays only, SSH - Saturdays and School Holidays only.

30, 30A ▸ Monday to Saturday

Upton ▸ Barnsley Centre

Service number:	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
See notes:	NS	NS	S														
Upton, East Av/Rose Av	–	0728	–	0834	0934	1034	1134	1234	1334	1434	1539	1639	1742	–	–	–	–
Wrangbrook, Tom Wood Ash Ln/Bell St	–	0734	–	0840	0940	1040	1140	1240	1340	1440	1545	1645	1748	–	–	–	–
Minsthorpe, Swimming Baths	–	0743	–	0849	0949	1049	1149	1249	1349	1449	1554	1654	1757	–	–	–	–
South Elmsall, Bus Stn	0646	0745	–	0851	0951	1051	1151	1251	1351	1451	1556	1656	1759	–	–	–	–
South Elmsall, Minsthorpe Ln/Cambridge St	0651	0750	–	0856	0956	1056	1156	1256	1356	1456	1601	1701	1804	–	–	–	–
Brierley, Common Rd/Park Av	0702	0801	0804	0907	1007	1107	1207	1307	1407	1507	1612	1712	1815	1830	1930	2030	2130
Grimethorpe, Brierley Rd/Windmill Av	0706	0805	0808	0911	1011	1111	1211	1311	1411	1511	1616	1716	1819	1834	1934	2034	2134
Grimethorpe, Stacey Cres/Springfield Rd	0709	0808	–	0914	1014	1114	1214	1314	1414	1514	1619	1719	1822	–	–	–	–
Grimethorpe, Interchange	0713	0812	0812	0918	1018	1118	1218	1318	1418	1518	1623	1723	1826	1838	1938	2038	2138
Brierley, Church St/Grange Rd	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Grimethorpe, Park Spring Rd/ASOS	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Shafton, Pontefract Rd/Tollgate Cl	0719	0818	0818	0924	1024	1124	1224	1324	1424	1524	1629	1729	1832	1843	1943	2043	2143
Cudworth, Barnsley Rd/St Johns Rd	0724	0823	0823	0929	1029	1129	1229	1329	1429	1529	1634	1734	1837	1848	1948	2048	2148
Lundwood, Pontefract Rd/Wycombe St	0728	0827	0827	0933	1033	1133	1233	1333	1433	1533	1638	1738	1841	1852	1952	2052	2152
Barnsley, Interchange	0737	0837	0837	0942	1042	1142	1242	1342	1442	1542	1647	1747	1850	1900	2000	2100	2200

Notes: NS - Not Saturdays, S - Saturdays only.

30, 30A ▸ Monday to Saturday (continued)

Upton ▸ Barnsley Centre

Service number:	30A	30
Upton, East Av/Rose Av	–	–
Wrangbrook, Tom Wood Ash Ln/Bell St	–	–
Minsthorpe, Swimming Baths	–	–
South Elmsall, Bus Stn	–	–
South Elmsall, Minsthorpe Ln/Cambridge St	–	–
Brierley, Common Rd/Park Av	2227	2338
Grimethorpe, Brierley Rd/Windmill Av	2231	–
Grimethorpe, Stacey Cres/Springfield Rd	–	–
Grimethorpe, Interchange	2235	–
Brierley, Church St/Grange Rd	–	2342
Grimethorpe, Park Spring Rd/ASOS	2240	–
Shafton, Pontefract Rd/Tollgate Cl	2246	2345
Cudworth, Barnsley Rd/St Johns Rd	2250	2350
Lundwood, Pontefract Rd/Wycombe St	2254	2354
Barnsley, Interchange	2302	0002

30, 30A ▸ Sunday

Barnsley Centre ▸ Brierley

Service number:	30	30	30	30	30	30	30	30	30	30	30	30	30	30A
Barnsley, Interchange	0953	1053	1153	1253	1353	1453	1553	1653	1753	1853	1953	2053	2153	2303
Lundwood, Pontefract Rd/Wycombe St	1002	1102	1202	1302	1402	1502	1602	1702	1802	1902	2002	2102	2202	2312
Cudworth, Barnsley Rd/The Star	1007	1107	1207	1307	1407	1507	1607	1707	1807	1907	2007	2107	2207	2317
Shafton, Brierley Rd/Ash Rd	1012	1112	1212	1312	1412	1512	1612	1712	1812	1912	2012	2112	2212	2322
Grimethorpe, Park Spring Rd/ASOS	–	–	–	–	–	–	–	–	–	–	–	–	–	2327
Grimethorpe, Queensway/Interchange Stand 3	1018	1118	1218	1318	1418	1518	1618	1718	1818	1918	2018	2118	2218	2330
Grimethorpe, Brierley Rd/Manor Cres	1021	1121	1221	1321	1421	1521	1621	1721	1821	1921	2021	2121	2221	2333
Brierley, Common Rd/Park Av	1026	1126	1226	1326	1426	1526	1626	1726	1826	1926	2026	2126	2226	2338

30, 30A ▸ Sunday

Brierley ▸ Barnsley Centre

Service number:	30	30	30	30	30	30	30	30	30	30	30	30	30	30A	30
Brierley, Common Rd/Park Av	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2227	2338
Grimethorpe, Brierley Rd/Windmill Av	0934	1034	1134	1234	1334	1434	1534	1634	1734	1834	1934	2034	2134	2231	–
Grimethorpe, Queensway/Interchange Stand 2	0938	1038	1138	1238	1338	1438	1538	1638	1738	1838	1938	2038	2138	2235	–
Brierley, Church St/Grange Rd	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2342
Grimethorpe, Park Spring Rd/ASOS	–	–	–	–	–	–	–	–	–	–	–	–	–	2240	–
Shafton, Pontefract Rd/Tollgate Cl	0943	1043	1143	1243	1343	1443	1543	1643	1743	1843	1943	2043	2143	2246	2345
Cudworth, Barnsley Rd/St Johns Rd	0948	1048	1148	1248	1348	1448	1548	1648	1748	1848	1948	2048	2148	2250	2350
Lundwood, Pontefract Rd/Wycombe St	0952	1052	1152	1252	1352	1452	1552	1652	1752	1852	1952	2052	2152	2254	2354
Barnsley, Interchange	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2302	0002

Travel South Yorkshire

34 34A

Full Timetable

Barnsley
Monk Bretton
Athersley
Carlton
Shafton
Cudworth
Lundwood

From 01/09/2014

Also serves:
Monk Bretton Priory

Also available online at travelsouthyorkshire.com

Operated by:
Tates Travel

Some journeys operated with financial support from South Yorkshire Passenger Transport Executive

What's changed

From Monday 01 September 2014, changes will be made to the times of service 34.

Service 34 - Monday to Friday (school holidays) 1425 from Barnsley will run 5 minutes earlier and will also run on schooldays; Monday to Friday 1525 from Barnsley will run 5 minutes later. Additional journey: schooldays 1440 from Shafton, Advanced Learning Centre to Monk Bretton.

Service 34A - Monday to Friday Schooldays journey at 0750 and school holidays journeys at 0755 will run 5 minutes earlier, Monday to Friday Schooldays and School Holidays journeys ay 1455 will run 5 minutes later.

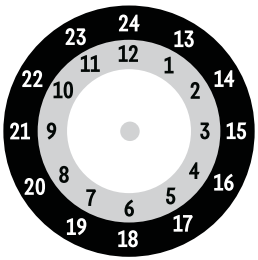


We aim to provide information which is as accurate as possible. We cannot accept responsibility for errors, or for any service that does not operate to the times shown.

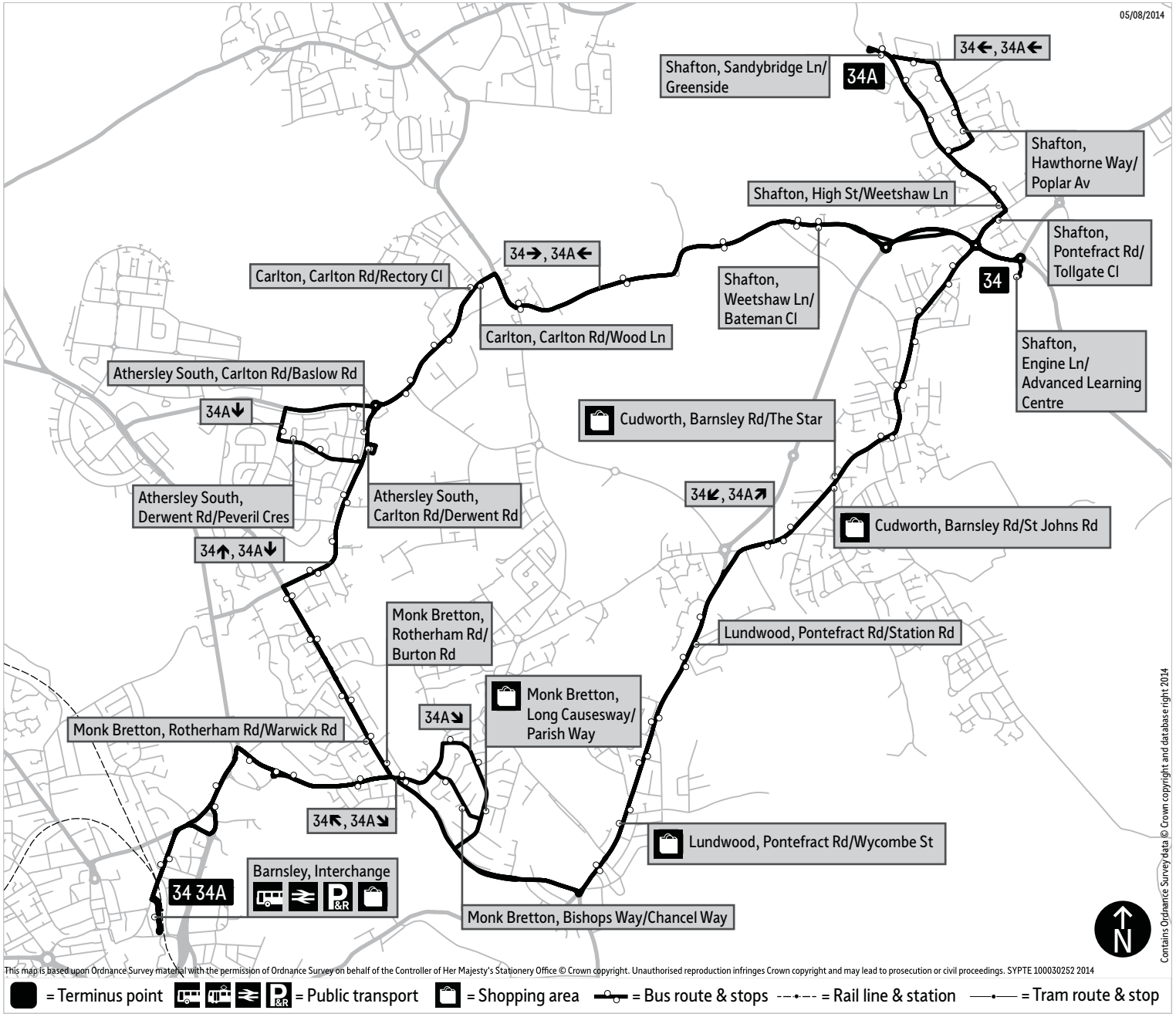
24 hour clock
Throughout South Yorkshire our timetables use the 24 hour clock to avoid confusion between am and pm times.

For example:
9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times



Bus route map for services 34 and 34A



Stopping points for service 34

Barnsley, Interchange ▸ Eldon Street North ▸ Old Mill Lane ▸ **Honeywell** ▸ Burton Road ▸ **Monk Bretton** ▸ Rotherham Road ▸ **Smithies** ▸ **Athersley South** ▸ Carlton Road ▸ Athersley Road ▸ Bakewell Road ▸ Chatsworth Road ▸ Laithes Lane ▸ **Carlton** ▸ Carlton Road ▸ Shaw Lane ▸ **Shafton** ▸ Weet Shaw Lane ▸ High Street ▸ Hawthorne Way ▸ Hawthorne Street ▸ Redthorne Way ▸ Sandybridge Lane ▸ Dog Hill ▸ High Street ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Monk Bretton** ▸ Rotherham Road ▸ Burton Road ▸ **Honeywell** ▸ Harbrough Hill Road ▸ Eldon Street North ▸ **Barnsley, Interchange**

34 ▸ Monday to Friday

Barnsley Centre ▸ Shafton ▸ Barnsley Centre

See notes:			SD	SH						SD A		SH	SD		
Barnsley, Interchange	0620	0715	0825	0825	0920	1020	1120	1220	1320	–	1420	1530	1530	1630	1730
Monk Bretton, Rotherham Rd/Warwick Rd	0626	0721	0831	0831	0926	1026	1126	1226	1326	–	1426	1536	1536	1636	1736
Athersley South, Chatsworth Rd/Wingfield Rd	0631	0726	–	0836	0931	1031	1131	1231	1331	–	1431	1541	–	1641	1741
Athersley South, Carlton Rd/Baslow Rd	–	–	0836	–	–	–	–	–	–	–	–	–	1541	–	–
Carlton, Carlton Rd/Rectory Cl	0635	0730	0840	0840	0935	1035	1135	1235	1335	–	1435	1545	1545	1645	1745
Shafton, Weetshaw Ln/Bateman Cl	0639	0734	0844	0844	0939	1039	1139	1239	1339	–	1439	1549	1549	1649	1749
Shafton, High St/Weetshaw Ln	0643	0738	0848	0848	0943	1043	1143	1243	1343	–	1443	1553	1553	1653	1753
Shafton, Hawthorne Way/Poplar Av	0645	0740	0850	0850	0945	1045	1145	1245	1345	–	1445	1555	1555	1655	1755
Shafton, Sandybridge Ln/Greenside	0647	0742	0852	0852	0947	1047	1147	1247	1347	–	1447	1557	1557	1657	1757
Shafton, Pontefract Rd/Tollgate Cl	0650	0745	0855	0855	0950	1050	1150	1250	1350	–	1450	1600	1600	1700	1800
Shafton, Engine Ln/Advanced Learning Centre	–	–	–	–	–	–	–	–	–	1440	–	–	–	–	–
Cudworth, Barnsley Rd/St Johns Rd	0655	0750	0900	0900	0955	1055	1155	1255	1355	1445	1455	1605	1605	1705	1805
Lundwood, Pontefract Rd/Wycombe St	0659	0754	0904	0904	0959	1059	1159	1259	1359	1449	1459	1609	1609	1709	1809
Monk Bretton, Bishops Way/Chancel Way	–	–	–	–	–	–	–	–	–	1452	–	–	–	–	–
Barnsley, Interchange	0710	0805	0915	0915	1010	1110	1210	1310	1410	1503	1510	1620	1620	1720	1820

Notes:A - Operates via Long Causeway and Bishops way. SD - Schooldays only, SH - School holidays only

34 ▸ Saturday

Barnsley Centre ▸ Shafton ▸ Barnsley Centre

Barnsley, Interchange	0720	0820	0920	1020	1120	1220	1320	1420	1520	1620	1720
Monk Bretton, Rotherham Rd/Warwick Rd	0726	0826	0926	1026	1126	1226	1326	1426	1526	1626	1726
Athersley South, Chatsworth Rd/Wingfield Rd	0731	0831	0931	1031	1131	1231	1331	1431	1531	1631	1731
Carlton, Carlton Rd/Rectory Cl	0735	0835	0935	1035	1135	1235	1335	1435	1535	1635	1735
Shafton, Weetshaw Ln/Bateman Cl	0739	0839	0939	1039	1139	1239	1339	1439	1539	1639	1739
Shafton, High St/Weetshaw Ln	0743	0843	0943	1043	1143	1243	1343	1443	1543	1643	1743
Shafton, Hawthorne Way/Poplar Av	0745	0845	0945	1045	1145	1245	1345	1445	1545	1645	1745
Shafton, Sandybridge Ln/Greenside	0747	0847	0947	1047	1147	1247	1347	1447	1547	1647	1747
Shafton, Pontefract Rd/Tollgate Cl	0750	0850	0950	1050	1150	1250	1350	1450	1550	1650	1750
Cudworth, Barnsley Rd/St Johns Rd	0755	0855	0955	1055	1155	1255	1355	1455	1555	1655	1755
Lundwood, Pontefract Rd/Wycombe St	0759	0859	0959	1059	1159	1259	1359	1459	1559	1659	1759
Barnsley, Interchange	0810	0910	1010	1110	1210	1310	1410	1510	1610	1710	1810

No Service Sunday

Stopping points for service 34A

Barnsley, Interchange ▸ Eldon Street North ▸ Old Mill Lane ▸ **Honeywell** ▸ Burton Road ▸ **Monk Bretton** ▸ Rotherham Road ▸ **Cundy Cross** ▸ Pontefract Road ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ High Street ▸ Hawthorne Way ▸ Hawthorne Street ▸ Redthorne Way ▸ Sandybridge Lane ▸ Dog Hill ▸ High Street ▸ Pontefract Road ▸ Weetshaw Lane ▸ Shaw Lane ▸ **Carlton** ▸ Carlton Road ▸ **Athersley South** ▸ Laithes Lane ▸ Chatsworth Road ▸ Derwent Road ▸ Carlton Road ▸ **Smithies** ▸ Rotherham Road ▸ **Monk Bretton** ▸ Burton Road ▸ **Honeywell** ▸ Harbrough Hill Road ▸ Eldon Street North ▸ **Barnsley, Interchange**

34A ▸ Monday to Friday

Barnsley Centre ▸ Shafton ▸ Barnsley Centre

See notes:		SD B	SH							SH	SD		
Barnsley, Interchange	0650	0745	0750	0850	0950	1050	1150	1250	1350	1500	1500	1600	1700
Monk Bretton, Long Causeway/Parish Way	–	0753	–	–	–	–	–	–	–	–	–	–	–
Lundwood, Pontefract Rd/Wycombe St	0700	0757	0800	0900	1000	1100	1200	1300	1400	1510	1510	1610	1710
Cudworth, Barnsley Rd/The Star	0705	0802	0805	0905	1005	1105	1205	1305	1405	1515	1515	1615	1715
Shafton, Engine Ln/Advanced Learning Centre	–	0807	–	–	–	–	–	–	–	–	–	–	–
Shafton, High St/Weetshaw Ln	0709	0809	0809	0909	1009	1109	1209	1309	1409	1519	1519	1619	1719
Shafton, Hawthorne Way/Poplar Av	0711	0811	0811	0911	1011	1111	1211	1311	1411	1521	1521	1621	1721
Shafton, Sandybridge Ln/Greenside	0714	0814	0814	0914	1014	1114	1214	1314	1414	1524	1524	1624	1724
Shafton, Pontefract Rd/Tollgate Cl	0717	0817	0817	0917	1017	1117	1217	1317	1417	1527	1527	1627	1727
Shafton, Weetshaw Ln/Bateman Cl	0720	0820	0820	0920	1020	1120	1220	1320	1420	1530	1530	1630	1730
Carlton, Carlton Rd/Wood Ln	0725	0825	0825	0925	1025	1125	1225	1325	1425	1535	1535	1635	1735
Athersley South, Derwent Rd/Peveril Cres	0728	–	0828	0928	1028	1128	1228	1328	1428	1538	–	1638	1738
Athersley South, Carlton Rd/Derwent Rd	–	0828	–	–	–	–	–	–	–	–	1538	–	–
Monk Bretton, Rotherham Rd/Burton Rd	0733	0833	0833	0933	1033	1133	1233	1333	1433	1543	1543	1643	1743
Barnsley, Interchange	0740	0840	0840	0940	1040	1140	1240	1340	1440	1550	1550	1650	1750

Notes: B - Operates via Long Causeway. SD - Schooldays only, SH - School holidays only

34A ▸ Saturday

Barnsley Centre ▸ Shafton ▸ Barnsley Centre

Barnsley, Interchange	–	0750	0850	0950	1050	1150	1250	1350	1450	1550	1650
Lundwood, Pontefract Rd/Wycombe St	–	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700
Cudworth, Barnsley Rd/The Star	–	0805	0905	1005	1105	1205	1305	1405	1505	1605	1705
Shafton, High St/Weetshaw Ln	–	0809	0909	1009	1109	1209	1309	1409	1509	1609	1709
Shafton, Hawthorne Way/Poplar Av	–	0811	0911	1011	1111	1211	1311	1411	1511	1611	1711
Shafton, Sandybridge Ln/Greenside	0719	0814	0914	1014	1114	1214	1314	1414	1514	1614	1714
Shafton, Pontefract Rd/Tollgate Cl	0722	0817	0917	1017	1117	1217	1317	1417	1517	1617	1717
Shafton, Weetshaw Ln/Bateman Cl	0725	0820	0920	1020	1120	1220	1320	1420	1520	1620	1720
Carlton, Carlton Rd/Wood Ln	0730	0825	0925	1025	1125	1225	1325	1425	1525	1625	1725
Athersley South, Derwent Rd/Peveril Cres	0733	0828	0928	1028	1128	1228	1328	1428	1528	1628	1728
Monk Bretton, Rotherham Rd/Burton Rd	0738	0833	0933	1033	1133	1233	1333	1433	1533	1633	1733
Barnsley, Interchange	0745	0840	0940	1040	1140	1240	1340	1440	1540	1640	1740

No Service Sunday

Travel South Yorkshire

32

Full Timetable

Barnsley
Lundwood
Cudworth

From 30/08/2014

Also available online at travelsouthyorkshire.com

Operated by:

Stagecoach

Some journeys operated with financial support from South Yorkshire Passenger Transport Executive

What's changed

From Saturday 30 August 2014, there will be changes to the times of service 32.

During the daytime on Monday to Saturday buses will run every 10 minutes. The Monday to Friday timetable will also be amended to take account of changes to Shafton ALC school times.



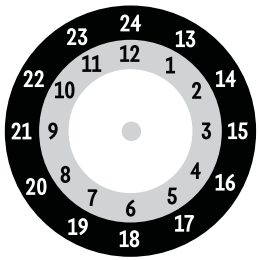
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24 hour clock
Throughout South Yorkshire our timetables use the 24 hour clock to avoid confusion between am and pm times.

For example:

9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times

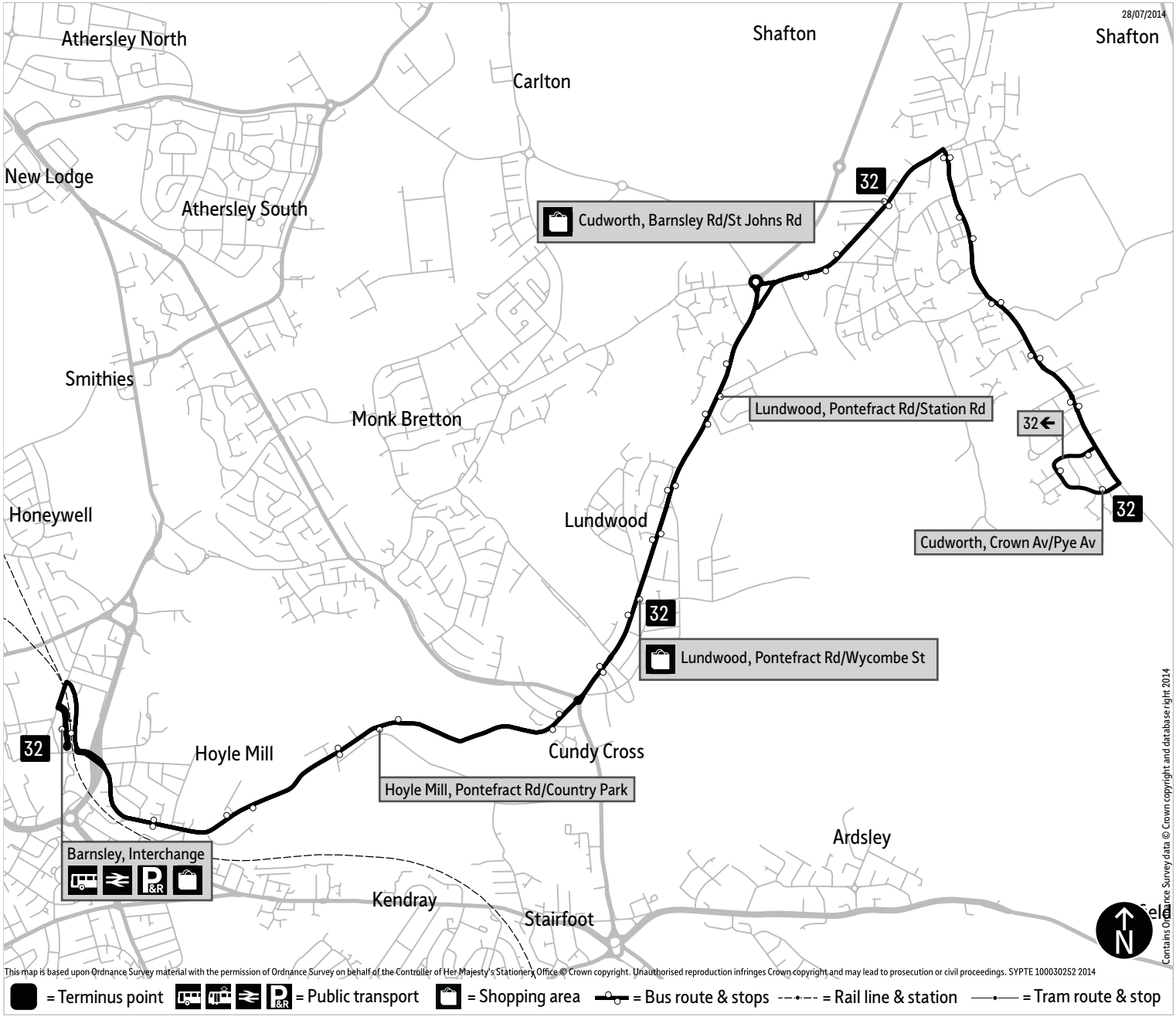


Stopping points for service 32

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ Barnsley Road ▸ Snydale Road ▸ Darfield Road ▸ **Cudworth, Crown Avenue**

Cudworth, Crown Avenue ▸ Darfield Road ▸ Snydale Road ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Bus route map for service 32



32 ▸ Monday to Friday — Barnsley Centre ▸ Cudworth

See notes:				SD	SH										
Barnsley, Interchange	0636	0720	0731	0738	0738	0756	0811	0822	0836	about	1556	1611	about	1701	1713
Lundwood, Pontefract Rd/Wycombe St	0646	0730	0741	0748	0748	0806	0821	0832	0846	every	1607	1623	every	1713	1724
Cudworth, Barnsley Rd/St Johns Rd	0651	0735	0746	0753	0753	0811	0826	0837	0851	10 mins	1612	1628	10 mins	1718	1729
Cudworth, Crown Av/Pye Av	0656	0740	0751	–	0758	0816	0831	0842	0856	until	1617	1633	until	1723	1734
Barnsley, Interchange	1723	1731	1746	1808	1908	2008	2108	2208	2308						
Lundwood, Pontefract Rd/Wycombe St	1734	1742	1757	1817	1917	2017	2117	2217	2317						
Cudworth, Barnsley Rd/St Johns Rd	1739	1747	1802	1822	1922	2022	2122	2222	2322						
Cudworth, Crown Av/Pye Av	1744	1752	1807	1826	1926	2026	2126	2226	2326						

32 ▸ Monday to Friday — Cudworth ▸ Barnsley Centre

See notes:								SH	SD								
Cudworth, Crown Av/Pye Av	0518	0618	0658	0713	0732	0747	0757	0812	–	0822	0832	0843	0858	about	1548	1603
Cudworth, Barnsley Rd/St Johns Rd	0524	0624	0704	0719	0738	0753	0803	0818	0818	0828	0838	0849	0904	every	1554	1609
Lundwood, Pontefract Rd/Wycombe St	0528	0628	0708	0723	0742	0757	0807	0822	0822	0832	0842	0853	0908	10 mins	1558	1613
Barnsley, Interchange	0537	0637	0717	0732	0752	0807	0817	0832	0832	0842	0852	0902	0917	until	1607	1622
Cudworth, Crown Av/Pye Av	about	1703	1715	1725	1735	1745	1753	1808	1827	1927	2027	2127	2227	2327		
Cudworth, Barnsley Rd/St Johns Rd	every	1709	1721	1731	1741	1751	1759	1814	1833	1932	2032	2132	2232	2332		
Lundwood, Pontefract Rd/Wycombe St	10 mins	1713	1725	1735	1745	1755	1803	1818	1837	1936	2036	2136	2236	2336		
Barnsley, Interchange	until	1722	1734	1744	1754	1804	1812	1827	1846	1945	2045	2145	2245	2345		

32 ▸ Saturday — Barnsley Centre ▸ Cudworth

Barnsley, Interchange	0636	0822	0846	about	1556	1611	about	1701	1721	1746	1808	about	2208	2308
Lundwood, Pontefract Rd/Wycombe St	0646	0832	0856	every	1607	1623	every	1713	1734	1757	1817	every	2217	2317
Cudworth, Barnsley Rd/St Johns Rd	0651	0837	0901	10 mins	1612	1628	10 mins	1718	1739	1802	1822	hour	2222	2322
Cudworth, Crown Av/Pye Av	0656	0842	0906	until	1617	1633	until	1723	1744	1807	1826	until	2226	2326

32 ▸ Saturday — Cudworth ▸ Barnsley Centre

Cudworth, Crown Av/Pye Av	0528	0628	0658	0722	0742	0802	0822	0843	0858	about	1548	1603	about	1703	1715
Cudworth, Barnsley Rd/St Johns Rd	0534	0634	0704	0728	0748	0808	0828	0849	0904	every	1554	1609	every	1709	1721
Lundwood, Pontefract Rd/Wycombe St	0538	0638	0708	0732	0752	0812	0832	0853	0908	10 mins	1558	1613	10 mins	1713	1725
Barnsley, Interchange	0547	0647	0717	0742	0802	0822	0842	0902	0917	until	1607	1622	until	1722	1734
Cudworth, Crown Av/Pye Av	1725	1745	1808	1827	1927	2027	2127	2227	2327						
Cudworth, Barnsley Rd/St Johns Rd	1731	1751	1814	1833	1932	2032	2132	2232	2332						
Lundwood, Pontefract Rd/Wycombe St	1735	1755	1818	1837	1936	2036	2136	2236	2336						
Barnsley, Interchange	1744	1804	1827	1846	1945	2045	2145	2245	2345						

32 ▸ Sunday — Barnsley Centre ▸ Cudworth

Barnsley, Interchange	1008	then at	08	until	2308
Lundwood, Pontefract Rd/Wycombe St	1017	these	17		2317
Cudworth, Barnsley Rd/St Johns Rd	1022	mins past	22		2322
Cudworth, Crown Av/Pye Av	1026	the hour	26		2326

32 ▸ Sunday — Cudworth ▸ Barnsley Centre

Cudworth, Crown Av/Pye Av	0927	then at	27	until	2227	2327
Cudworth, Barnsley Rd/St Johns Rd	0932	these	32		2232	2332
Lundwood, Pontefract Rd/Wycombe St	0936	mins past	36		2236	2336
Barnsley, Interchange	0945	the hour	45		2245	–

Notes: SD - Schooldays only, SH - School holidays only

Travel South Yorkshire

37 37A

Full Timetable

Barnsley
Lundwood
Cudworth
Shafton
Grimethorpe
Brierley
Hemsworth (37A)

From 26/08/2014

Also available online at travelsouthyorkshire.com

Operated by:

Waterson Coaches

What's changed

From Tuesday 26 August 2014, new services 37 and 37A will be introduced, operated by Watersons Coaches.

Service 37 will operate hourly during Monday to Saturday daytimes between Barnsley, Lundwood, Cudworth, Shafton, Grimethorpe, Shafton, Cudworth, Lundwood and Barnsley.
Service 37A will operate one Monday to Friday journey between Barnsley and Hemsworth and one Saturday return journey between Hemsworth, Brierley, Shafton, Cudworth, Lundwood and Barnsley.



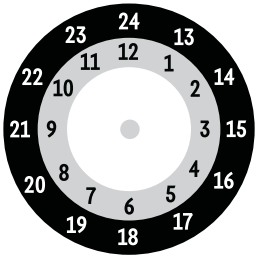
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24 hour clock
Throughout South Yorkshire our timetables use the 24 hour clock to avoid confusion between am and pm times.

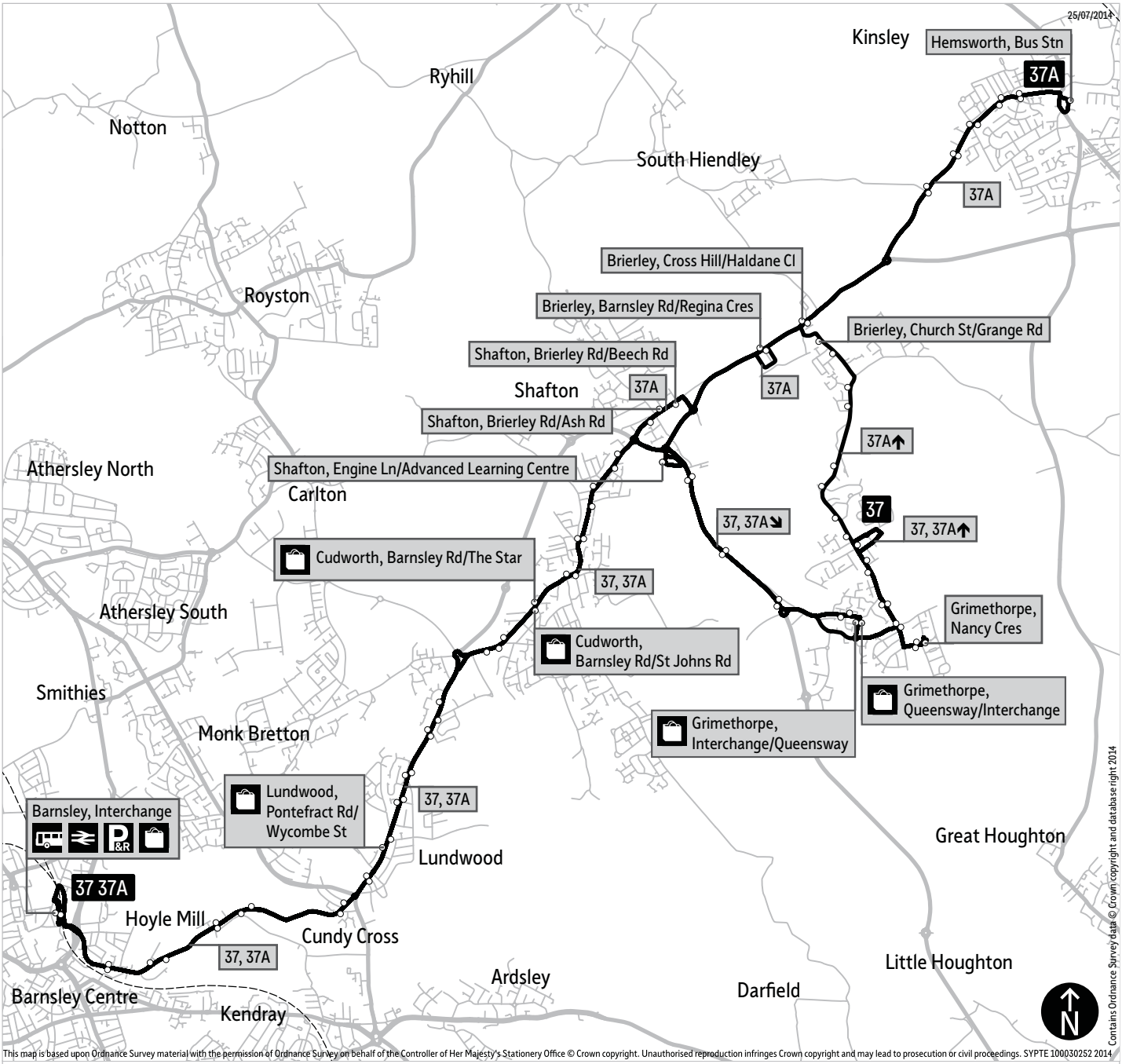
For example:

9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times



Bus route map for services 37 and 37A



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= Terminus point | = Public transport | = Shopping area | = Bus route & stops | = Rail line & station | = Tram route & stop

Stopping points for service 37

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ High Street ▸ Queensway ▸ Cemetery Road ▸ Nancy Road ▸ Nancy Crescent ▸ Nancy Road ▸ Cemetery Road ▸ Brierley Road ▸ Dell Avenue ▸ Brierley Road ▸ Cemetery Road ▸ Queensway ▸ High Street ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service 37A

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ **Brierley** ▸ Barnsley Road ▸ Cross Hill ▸ Barnsley Road ▸ **Hemsworth, Bus Station**

Hemsworth, Bus Station ▸ Barnsley Road ▸ **Brierley** ▸ Cross Hill ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

37, 37A ▸ Monday to Friday

Barnsley Centre ▸ Grimethorpe ▸ Barnsley Centre

Service number:	37	37	37	37	37	37	37	37	37	37	37A
See notes:							SD	SH	SD	SH	
Barnsley, Interchange	–	0855	0955	1055	1155	1255	1355	1355	–	1455	–
Lundwood, Pontefract Rd/Wycombe St	0740	0900	1000	1100	1200	1300	1400	1400	–	1500	1600
Cudworth, Barnsley Rd/The Star	0745	0905	1005	1105	1205	1305	1405	1405	–	1505	1605
Shafton, Engine Ln/Advanced Learning Centre	0750	–	–	–	–	–	–	–	–	–	–
Shafton, Brierley Rd/Ash Rd	–	0910	1010	1110	1210	1310	1410	1410	–	1510	1610
Brierley, Barnsley Rd/Regina Cres	–	–	–	–	–	–	–	–	–	–	1612
Hemsworth, Bus Stn	–	–	–	–	–	–	–	–	–	–	1615
Grimethorpe, Queensway/Interchange	0755	0915	1015	1115	1215	1315	1415	1415	1445	1515	–
Grimethorpe, Nancy Cres	0805	0917	1017	1117	1217	1317	1417	1417	1450	1517	–
Grimethorpe, Dell Av/Central Av	–	0920	1020	1120	1220	1320	1420	1420	1455	1520	–
Grimethorpe, Interchange/Queensway	0810	0925	1025	1125	1225	1325	–	1425	1525	1525	–
Shafton, Engine Ln/Advanced Learning Centre	0815	–	–	–	–	–	1440	–	–	–	–
Shafton, Brierley Rd/Beech Rd	–	0930	1030	1130	1230	1330	–	1430	1530	1530	–
Cudworth, Barnsley Rd/St Johns Rd	0820	0937	1037	1137	1237	1337	–	1437	1537	1537	–
Lundwood, Pontefract Rd/Wycombe St	0827	0944	1044	1144	1244	1344	–	1444	1544	1544	–
Barnsley, Interchange	0833	0950	1050	1150	1250	1350	–	1450	1550	1550	–

Notes: SD - Schooldays only, SH - School Holidays only.

37, 37A ▸ Saturday

Barnsley Centre ▸ Grimethorpe ▸ Barnsley Centre

Service number:	37A	37	37	37	37	37	37A
Barnsley, Interchange	–	0955	1055	1155	1333	1433	1533
Lundwood, Pontefract Rd/Wycombe St	–	1000	1100	1200	1338	1438	1538
Cudworth, Barnsley Rd/The Star	–	1005	1105	1205	1343	1443	1543
Shafton, Engine Ln/Advanced Learning Centre	–	1010	1110	1210	1348	1448	1548
Grimethorpe, Queensway/Interchange	–	1015	1115	1215	1353	1453	1553
Grimethorpe, Nancy Cres	–	1017	1117	1217	1355	1455	1555
Grimethorpe, Dell Av/Central Av	–	1022	1122	1222	1400	1500	1600
Brierley, Church St/Grange Rd	–	–	–	–	–	–	1605
Hemsworth, Bus Stn	0920	–	–	–	–	–	1610
Grimethorpe, Interchange/Queensway	–	1025	1125	1225	1405	1505	–
Brierley, Cross Hill/Haldane Cl	0925	–	–	–	–	–	–
Shafton, Brierley Rd/Beech Rd	0930	1030	1130	1230	1410	1510	–
Cudworth, Barnsley Rd/St Johns Rd	0937	1037	1137	1237	1415	1515	–
Lundwood, Pontefract Rd/Wycombe St	0942	1042	1142	1242	1420	1520	–
Barnsley, Interchange	0950	1050	1150	1250	1425	1525	–

Travel South Yorkshire

38 38A 38B

Full Timetable

Barnsley
Cundy Cross
Lundwood
Cudworth
Shafton
Grimethorpe
Brierley (38A/38B)
Hemsworth (38A/38B)

From 26/08/2014

Also available online at travelsouthyorkshire.com

Operated by:

Watersons

What's changed

From Tuesday 26 August 2014, route and time changes will be made to services 38, 38A and 38B operated by Watersons.

There will be an approximately hourly daytime service between Barnsley and Grimethorpe on service 38, with additional journeys to and from Brierley and Hemsworth on services 38A and 38B.



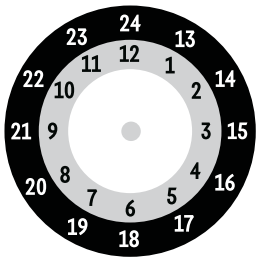
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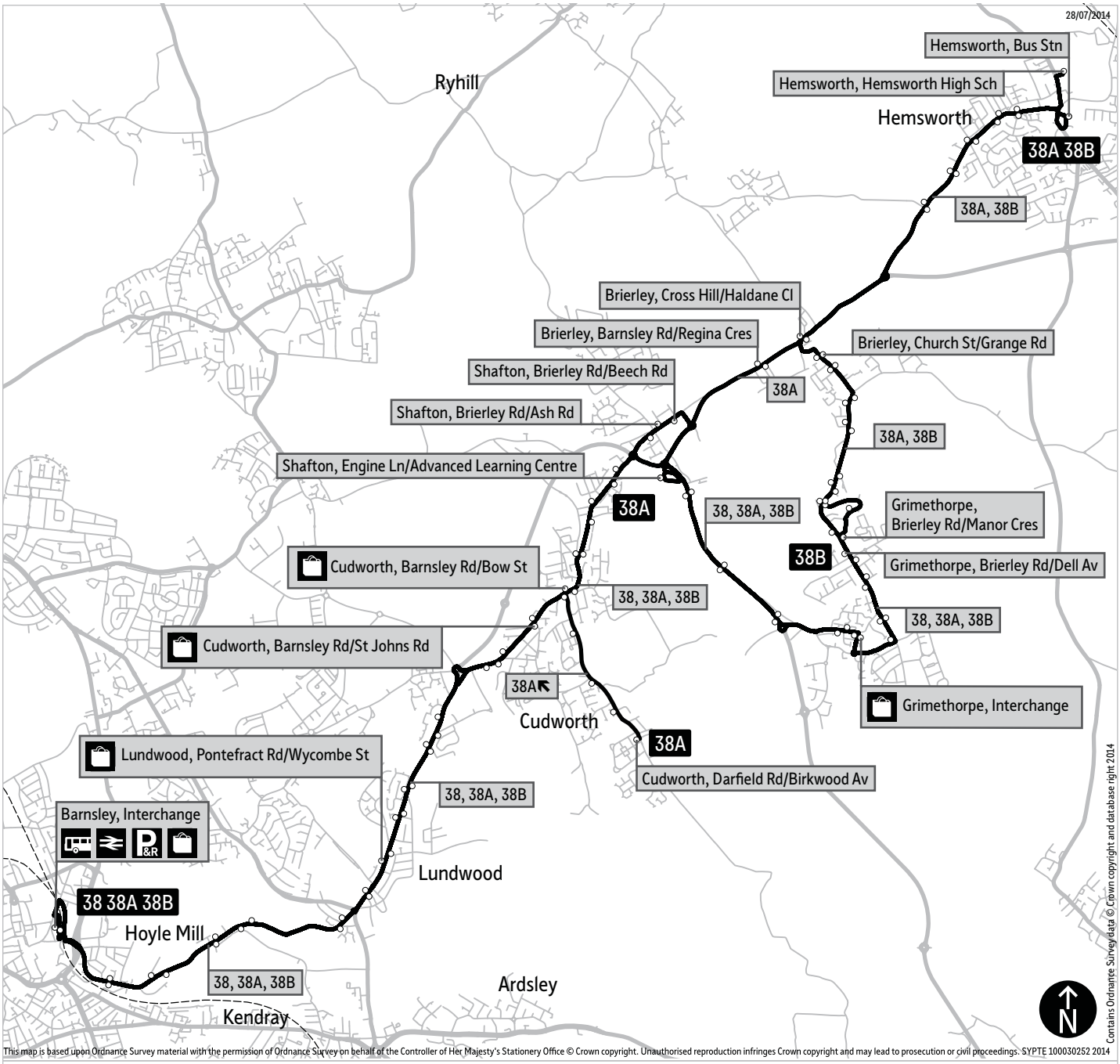
For example:

9.00am is shown as 0900
2.15pm is shown as 1415
10.25pm is shown as 2225

24 hour times
12 hour times



Bus route map for services 38, 38A and 38B



Stopping points for service 38

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ High Street ▸ Queensway ▸ Cemetery Road ▸ Brierley Road ▸ Windmill Avenue ▸ Brierley Road ▸ Cemetery Road ▸ Queensway ▸ High Street ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service 38A

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ High Street ▸ Queensway ▸ Cemetery Road ▸ Brierley Road ▸ **Brierley** ▸ Church Street ▸ Cross Hill ▸ **Hemsworth** ▸ Barnsley Road ▸ Hemsworth Bus Station Stand D ▸ Hemsworth High ▸ Barnsley Road ▸ **Brierley** ▸ Cross Hill ▸ Barnsley Road ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

Stopping points for service 38B

Barnsley, Interchange ▸ **Hoyle Mill** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Lundwood** ▸ **Cudworth** ▸ Barnsley Road ▸ Pontefract Road ▸ **Shafton** ▸ Brierley Road ▸ Engine Lane ▸ **Grimethorpe** ▸ High Street ▸ Queensway ▸ Cemetery Road ▸ Brierley Road ▸ Windmill Avenue ▸ Brierley Road ▸ Cemetery Road ▸ Queensway ▸ High Street ▸ Engine Lane ▸ **Shafton** ▸ Brierley Road ▸ Pontefract Road ▸ **Cudworth** ▸ Barnsley Road ▸ **Lundwood** ▸ Pontefract Road ▸ **Cundy Cross** ▸ **Hoyle Mill** ▸ Schwabish Gmund Way ▸ **Barnsley, Interchange**

38 ▸ Monday to Saturday

Barnsley Centre ▸ Grimethorpe ▸ Barnsley Centre

See notes:					NS	S	SH	S	SH
Barnsley, Interchange	0933	1033	1133	1233	1255	1333	1355	1433
Lundwood, Pontefract Rd/Wycombe St	0938	1038	1138	1238	1300	1338	1400	1438
Cudworth, Barnsley Rd/The Star	0943	1043	1143	1243	1305	1343	1405	1443
Shafton, Engine Ln/Advanced Learning Centre	0948	1048	1148	1248	1310	1348	1410	1448
Grimethorpe, Queensway/Interchange	0950	1050	1150	1250	1315	1350	1415	1450
Grimethorpe, Brierley Rd/Dell Av	0952	1052	1152	1252	1320	1352	1420	1452
Grimethorpe, Brierley Rd/Manor Cres	0955	1055	1155	1255	1325	1355	1425	1455
Grimethorpe, Interchange/Queensway	0958	1058	1158	1258	1330	1358	1430	1458
Shafton, Brierley Rd/Beech Rd	1002	1102	1202	1302	1337	1402	1437	1502
Cudworth, Barnsley Rd/St Johns Rd	1006	1106	1206	1306	1342	1406	1442	1506
Lundwood, Pontefract Rd/Wycombe St	1010	1110	1210	1310	1350	1410	1450	1510
Barnsley, Interchange	1020	1120	1220	1320	1400	1420	1500	1520

No Service Sunday

Notes: NS - Not Saturdays, S - Saturdays only, SH - Monday to Friday School Holidays only.

38A ▸ Monday to Saturday

Barnsley Centre ▸ Hemsworth / Shafton

See notes:		SD	SD	S
Barnsley, Interchange		–	1333	1455
Lundwood, Pontefract Rd/Wycombe St		–	1338	1500
Cudworth, Barnsley Rd/The Star		–	1343	–
Cudworth, Darfield Rd/Birkwood Av		0740	–	–
Cudworth, Barnsley Rd/Bow St		0745	–	1505
Shafton, Brierley Rd/Ash Rd		0750	1348	–
Shafton, Engine Ln/Advanced Learning Centre		–	–	1510
Brierley, Cross Hill/Haldane Cl		–	–	1515
Brierley, Barnsley Rd/Regina Cres		0753	–	–
Grimethorpe, Interchange		–	1350	–
Grimethorpe, Brierley Rd/Dell Av		–	1352	–
Brierley, Church St/Grange Rd		–	1357	–
Hemsworth, Bus Stn		–	1405	1520
Hemsworth, Hemsworth High Sch	a.	0800	1407	–
Hemsworth, Hemsworth High Sch	d.	–	1455	–
Hemsworth, Bus Stn		0805	–	–
Brierley, Barnsley Rd/Regina Cres		–	1505	–
Shafton, Brierley Rd/Beech Rd		–	1510	–
Cudworth, Barnsley Rd/St Johns Rd		–	1515	–
Lundwood, Pontefract Rd/Wycombe St		–	1520	–
Barnsley, Interchange		–	1530	–
Brierley, Church St/Grange Rd		0810	–	–
Grimethorpe, Brierley Rd/Manor Cres		0815	–	–
Grimethorpe, Interchange		0817	–	–
Shafton, Engine Ln/Advanced Learning Centre		0820	–	–

No Service Sunday

Notes: a. - Arrival time, d. - Departure time, SD - Schooldays only, S - Saturdays only.

38B ▸ Monday to Saturday

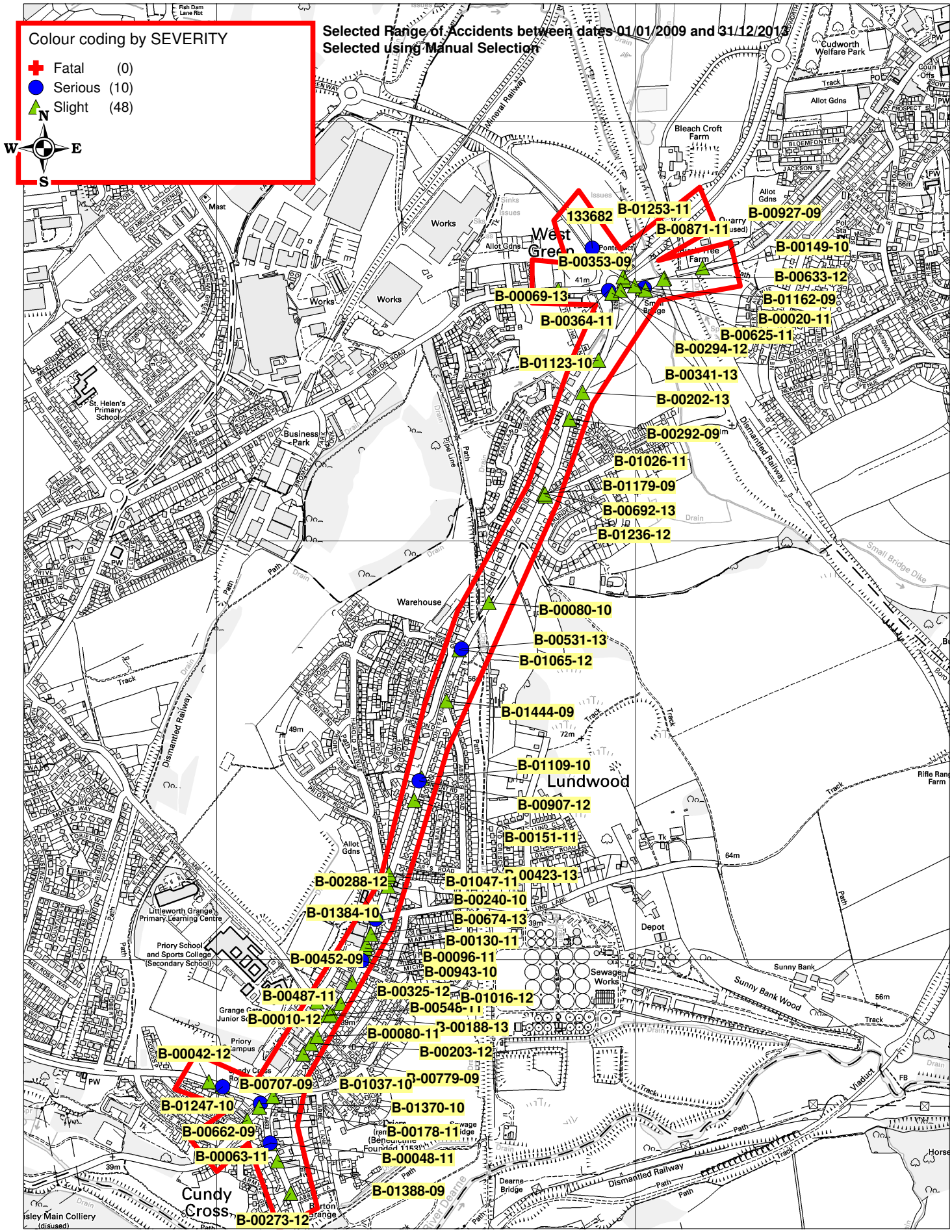
Barnsley Centre ▸ Hemsworth ▸ Barnsley Centre

See notes:	SH	S	SH	SD	NS
Barnsley, Interchange	–	–	0833	–	1533
Lundwood, Pontefract Rd/Wycombe St	–	–	0838	–	1538
Cudworth, Barnsley Rd/The Star	–	–	0843	–	1543
Shafton, Brierley Rd/Ash Rd	–	–	0848	–	1548
Grimethorpe, Interchange	–	–	0850	–	1550
Grimethorpe, Brierley Rd/Dell Av	–	–	0852	–	1552
Brierley, Church St/Grange Rd	–	–	–	–	1557
Hemsworth, Bus Stn	0738	0838	–	–	1605
Brierley, Church St/Grange Rd	0744	0845	–	–	–
Grimethorpe, Brierley Rd/Manor Cres	0755	0855	0855	0855	–
Grimethorpe, Interchange	0758	0857	0858	0858	–
Shafton, Brierley Rd/Beech Rd	0802	0902	0902	0902	–
Cudworth, Barnsley Rd/St Johns Rd	0806	0906	0906	0906	–
Lundwood, Pontefract Rd/Wycombe St	0810	0910	0910	0910	–
Barnsley, Interchange	0820	0920	0920	0920	–

No Service Sunday

See notes: SD - Schooldays only, SH - Monday to Friday School Holidays only, NS - Not Saturdays, S - Saturdays only.

Appendix 4



MAKING SOUTH YORKSHIRE ROADS SAFER

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Selected map area

SCALE	1 : 11750
DATE	01/10/2014
DRWG No.	
DRN BY	

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00292-09 12/03/2009 Thursday Time:1517 Vehicles 1 Casualties 1 Slight
Easting: 437,842 Northing: 408,289
Fine with high winds Road Surface:Dry Daylight: no street lighting
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:BUS DRIVER BRAKED DUE TO WORKMAN MOVING INTO CARR CAUSING A PASSENGER TO HURT HER ARM.

Vehicle Reference:1 Bus or coach Going ahead
First point of impact:Did not impact
Vehicle direction: Parked to Parked Journey: Journey as part of work
Age of Driver : 60 Breath test:Not applicable

Contributory Factors : 408

Casualty Reference 1 Age:58 Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00353-09 30/03/2009 Monday Time:1520 Vehicles 2 Casualties 1 Slight
Easting: 438,016 Northing: 408,602
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: BURTON RD MONK BRETTON J/W PONTEFRACT RD
Description:V1 STATIONARY ON BURTON RD WAITING TO TURN L ONTO A628 WHEN V2 COLL WITH REAR OF V1.

Vehicle Reference:1 Car Waiting to turn left
First point of impact:Back
Vehicle direction: W to E Journey: Not known
Age of Driver : 21 Breath test:Not applicable

Contributory Factors :

Casualty Reference 1 Age:21 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Slowing or Stopping
First point of impact:Front
Vehicle direction: W to E Journey: Not known
Age of Driver : Breath test:Not applicable

Contributory Factors :

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00452-09 28/04/2009 Tuesday Time:1700 Vehicles 2 Casualties 1 Slight
Easting: 437,323 Northing: 406,946
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 100 YDS FROM LITTLEWORTH LN
Description:V1 TR ALONG CARR, V2 STATIONARY IN LAY-BY BEGAN TO DO A U TURN AND TURNED ACROSS PATH OF V1 AND COLL OCC.

Vehicle Reference:1 Car Going ahead
First point of impact:Nearside
Vehicle direction: S to NE Journey: Commuting to/from work
Age of Driver : 50 Breath test:Not applicable

Contributory Factors : 602 403 405

Casualty Reference 1 Age:50 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car U turn
First point of impact:Offside
Vehicle direction: W to E Journey: Not known
Age of Driver : 18 Breath test:Not applicable

Contributory Factors : 602 403 405

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00662-09 19/06/2009 Friday Time:1430 Vehicles 1 Casualties 1 Slight
Easting: 437,073 Northing: 406,616
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD CUNDY CROSS
Description:V1 TV ALONG A628 TW CUDWORTH WHEN DRIVER HAD TO BRAKE SHARPLY DUE TO ACTIONS OF VEH IN FRONT. AS A RESULT PASS ON V1 SUSTAINED SL INJS.

Vehicle Reference:1 Bus or coach Going ahead
First point of impact:Did not impact
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 43 Breath test:Not applicable

Contributory Factors : 308 408

Casualty Reference 1 Age: Female Passenger Severity:Slight

Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00707-09 30/06/2009 Tuesday Time:1745 Vehicles 3 Casualties 1 Slight
Easting: 437,014 Northing: 406,698
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM RD CUNDY CROSS 100 MTS FROM PONTEFRACT RD
Description:V1 STATIONARY DUE TO TRAFFIC, V2 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V1.

Vehicle Reference:1 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: W to E Journey: Not known
Age of Driver : 44 Breath test:Not applicable

Contributory Factors :

Casualty Reference 1 Age:44 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: W to E Journey: Not known
Age of Driver : Breath test:Not applicable

Contributory Factors :

Vehicle Reference:3 Car Going ahead
First point of impact:Offside
Vehicle direction: W to E Journey: Not known
Age of Driver : 0 Breath test:Not applicable

Contributory Factors :

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00779-09 18/07/2009 Saturday Time:1826 Vehicles 1 Casualties 1 Slight
Easting: 437,206 Northing: 406,774
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY
Description:V1 TV DOWN A628 WHEN PED RAN STRAIGHT IN FRONT OF V1 W/O LOOKING & COLL OCCURRED.

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: W to E Journey: Not known
Age of Driver : 43 Breath test:Not applicable

Contributory Factors : 802 803

Casualty Reference 1 Age:12 Female Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's offside
Ped Location:On Ped Crossing

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00927-09 03/09/2009 Thursday Time:1320 Vehicles 2 Casualties 1 Slight
Easting: 438,159 Northing: 408,651
Fine without high winds Road Surface:Dry Daylight: no street lighting
Road Type: Single carriageway Speed Limit: 30

Location: BARNSLEY RD CUDWORTH
Description:V1 STATIONARY, V2 COLLIDED WITH V1 BUT THEN LEFT THE SCENE.

Vehicle Reference:1 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: S to NE Journey: Not known
Age of Driver : 41 Breath test:Not applicable

Contributory Factors : 405 602

Casualty Reference:1 Age:41 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Slowing or Stopping
First point of impact:Front
Vehicle direction: S to NE Journey: Not known
Age of Driver : Breath test:Not applicable

Contributory Factors : 405 602

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01162-09 24/10/2009 Saturday Time:1725 Vehicles 3 Casualties 1 Serious
Easting: 438,020 Northing: 408,602
Fine without high winds Road Surface:Wet/Damp Daylight:street lights present
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD CUDWORTH J/W BURTON RD
Description:V2 PULLED OUT OF JCT ACROSS PATH OF V1 (PED CYC) . PED CYC COLL WITH V2 & RIDER WAS PROJECTED OVER BONNETT OF V1 & THEN COLL WITH V3.

Vehicle Reference1 Pedal cycle Going ahead
First point of impact:Front
Vehicle direction: S to N Journey: Not known
Age of Driver : 45 Breath test:Not applicable

Contributory Factors : 403

Casualty Reference 1 Age:45 Male Driver/rider Severity:Serious
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference2 Car Turning right
First point of impact:Offside
Vehicle direction: N to W Journey: Not known
Age of Driver : 17 Breath test:Not applicable

Contributory Factors : 403

Vehicle Reference3 Car Waiting to turn left
First point of impact:Nearside
Vehicle direction: W to N Journey: Not known
Age of Driver : 21 Breath test:Not applicable

Contributory Factors : 403

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01179-09 04/11/2009 Wednesday Time:1447 Vehicles 2 Casualties 1 Slight
Easting: 437,780 Northing: 408,112
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD BARNSLEY AT J/W STATION RD
Description:V1 ON BLUE LGT RUN TO IMMEDIATE INCIDENT, TRAFFIC HAD MOVED OVER TO LEFT TO ALLOW POLICE VEH TO PASS BUT V2 AT FRONT OF LINE OF TRAFFIC TURNED RGT ACC PATH OF V1 AND COLL OCC CAUSING V2 TO OVERTURN.

Vehicle Reference:1 Car Overtaking moving vehicle on its offside
First point of impact:Front
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 34 Breath test:Not applicable

Contributory Factors : 903

Vehicle Reference:2 Other motor vehicle Turning right
First point of impact:Offside
Vehicle direction: E to NE Journey: Not known
Age of Driver : 74 Breath test:Not applicable

Contributory Factors : 903

Casualty Reference 1 Age:74 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01388-09 10/12/2009 Thursday Time:1700 Vehicles 2 Casualties 1 Slight
Easting: 437,145 Northing: 406,519
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: GRANGE LN CUNDY CROSS 20 MTS FROM J/W GRANGE CRES
Description:V1 TV ALONG GRANGE LN IN DIRC OF STAIRFOOT R/ABOUT.
PED CYC STATIONARY NEAR TO PELICAN CROSSING WAITING TO CROSS FROM GRANGE CRES SIDE TO LUNDWOOD SIDE. AS V1 TV ACROSS CROSSING IT CAME INTO CONTACT WITH PED CYC WHO HAD STARTED TO CROSS.

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 73 Breath test:Not applicable

Contributory Factors : 304 310

Vehicle Reference:2 Pedal cycle Moving off
First point of impact:Nearside
Vehicle direction: W to E Journey: Not known
Age of Driver : 15 Breath test:Not applicable

Contributory Factors : 304 310

Casualty Reference 1 Age:15 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01444-09 20/12/2009 Sunday Time:1345 Vehicles 1 Casualties 1 Slight
Easting: 437,548 Northing: 407,617
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 50 MTS FROM ABBOTS RD
Description:WHILST PULLING AWAY FROM BUS STOP REAR END OF BUS CAUGHT FEMALE WHO HAD JUST ALIGHTED AT STOP.

Vehicle Reference:1 Bus or coach Moving off
First point of impact:Back
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 50 Breath test:Not applicable

Contributory Factors : 801 710

Casualty Reference 1 Age:50 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00080-10 23/01/2010 Saturday Time:1505 Vehicles 1 Casualties 1 Slight
Easting: 437,649 Northing: 407,852
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:V1 TV ALONG PONTEFRACT RD TW CUDWORTH WHEN DRIVER HAD TO BRAKE SUDDENLY DUE TO ANOTHER VEH PULLING OUT IN FRONT OF HIM. AS A RESULT A CHILE FELL FROM HER SEAT ONTO THE FLOOR.

Vehicle Reference:1 Bus or coach Moving off
First point of impact:Did not impact
Vehicle direction: S to N Journey: Journey as part of work
Age of Driver : 44 Breath test:Not applicable

Contributory Factors : 408

Casualty Reference:1 Age: Female Passenger Severity:Slight
Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00149-10 31/01/2010 Sunday Time:1930 Vehicles 1 Casualties 2 Slight
Easting: 438,068 Northing: 408,626
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: BARNSLEY RD CUDWORTH 50 MTS FROM BURTON RD
Description:DRIVER LOST CONTROL COLLIDING WITH RAILWAY BRIDGE.

Vehicle Reference:1 Car Going ahead right hand bend
First point of impact:Back
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 23 Breath test:Not applicable

Contributory Factors : 408 306 410

Casualty Reference 1 Age:25 Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference 2 Age:23 Male Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00240-10 23/02/2010 Tuesday Time:1600 Vehicles 1 Casualties 1 Slight
Easting: 437,409 Northing: 407,175
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Unknown Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY
Description:DELIVERY VAN OBSTRUCTED SO BEGAN TO REVERSE AND COLL WITH PEDESTRIAN.

Vehicle Reference:1 Goods between 3.5 and 7.5 to R Reversing
First point of impact:Back
Vehicle direction: N to S Journey: Journey as part of work
Age of Driver : 45 Breath test:Not applicable

Contributory Factors : 802 405

Casualty Reference 1 Age:57 Female Pedestrian Severity:Slight
Ped Dir:9 Ped Movement : Movement U/K
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00943-10 10/09/2010 Friday Time:1227 Vehicles 1 Casualties 1 Slight
Easting: 437,353 Northing: 407,011
Fine without high winds Road Surface:Dry Daylight: no street lighting
Road Type: One way street Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:V1(PCV) STATIONARY AT RED ATS AT PELICAN XING. WHEN LIGHTS TURNED TO GREEN V1 SET OFF HOWEVER VEH IN FRONT BRAKED CAUSING V1 TO BRAKE HARSHLY. AS A RESULT PASSENGER SUSTAINED S INJS

Vehicle Reference:1 Bus or coach Moving off
First point of impact:Did not impact
Vehicle direction: N to S Journey: Journey as part of work
Age of Driver : 39 Breath test:Not applicable

Contributory Factors : 408

Casualty Reference:1 Age: Female Passenger Severity:Slight

Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01037-10 01/10/2010 Friday Time:1645 Vehicles 2 Casualties 2 Slight
Easting: 437,134 Northing: 406,673
Raining without high winds Road Surface:Wet/Damp Daylight: no street lighting
Road Type: Roundabout Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 10 MTS FROM J/W LANG AVE
Description:V1 TV FROM GRANGE LN ONTO CUNDY CROSS R/ABOUT & ONTO PONTEFARCT RD. DRIVER LOST CONTRAOL & SLID INTO V2. V2 WAS TV ON PONTEFRACT RD TW THE R/ABOUT.

Vehicle Reference:1 Car Moving off
First point of impact:Front
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 18 Breath test:Not applicable

Contributory Factors : 103 307 410 605

Casualty Reference:1 Age:18 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Bus or coach Going ahead
First point of impact:Front
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 53 Breath test:Not applicable

Contributory Factors : 103 307 410 605

Casualty Reference:2 Age:64 Female Passenger Severity:Slight
Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01109-10 13/10/2010 Wednesday Time:0942 Vehicles 2 Casualties 1 Slight
Easting: 437,489 Northing: 407,433
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 5 MTS FROM VINCENT RD
Description:BOTH VEH'S TR IN SAME DIRECTION, V2 COLL WITH REAR OF V1, NO APPARENT DESTRACTION

Vehicle Reference:1 Car Going ahead
First point of impact:Back
Vehicle direction: N to S Journey: Journey as part of work
Age of Driver : 56 Breath test:Not applicable

Contributory Factors : 308 406

Casualty Reference 1 Age:56 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 30 Breath test:Not applicable

Contributory Factors : 308 406

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01123-10 23/10/2010 Saturday Time:0215 Vehicles 1 Casualties 2 Slight
Easting: 437,911 Northing: 408,430
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD LUNDWOOD 2 MTS FROM TUMBLING LN
Description:VEH MOUNTED KERB COLL WITH ROAD SIGN THEN ROLLED A NUMBER OF TIMES BEFORE COLL WITH LAMP POST

Vehicle Reference:1 Car Going ahead right hand bend
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 27 Breath test:Not applicable

Contributory Factors : 306 501 502

Casualty Reference 1 Age:16 Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference 2 Age:19 Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01384-10 18/11/2010 Thursday Time:1936 Vehicles 1 Casualties 1 Serious
Easting: 437,379 Northing: 407,096
Other Road Surface:Wet/Damp Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY
Description:VEH TR ALONG CARR COLL WITH PED ON N/S

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 49 Breath test:Not applicable

Contributory Factors : 808 805 806 807 802 803

Casualty Reference 1 Age:19 Male Pedestrian Severity:Serious
Ped Dir:9 Ped Movement : Driver's nearside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01247-10 28/11/2010 Sunday Time:0229 Vehicles 2 Casualties 3 Serious
Easting: 437,014 Northing: 406,696
Other Road Surface:Frost/Ice Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM RD CUNDY CROSS
Description:V2 TV DOWN ROTHERHAM RD IN DIRC OF R/ABOUT. V2 RV AROUND BEND, HIT ICE IN RD & LOST CONTROL. AS A RESULT V2 SPUN ROUND & THEN COLL WITH PARKED V1.

Vehicle Reference1 Car Parked
First point of impact:Front
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test:Not applicable

Contributory Factors : 501 410 306 999

Vehicle Reference2 Car Going ahead right hand bend
First point of impact:Front
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test:Not applicable

Contributory Factors : 501 410 306 999

Casualty Reference 1 Age:19 Female Passenger Severity:Serious
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference 2 Age:20 Male Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference 3 Age:21 Male Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01370-10 22/12/2010 Wednesday Time:1230 Vehicles 2 Casualties 1 Serious
Easting: 437,104 Northing: 406,656
Fine without high winds Road Surface:Wet/Damp Daylight:street lights present
Road Type: Roundabout Speed Limit: 30

Location: PONTEFRACT RD CUNDY CROSS AT J/W RDBT
Description:V1 ENTERED RDBT AND COLL WITH V2 ALREADY ON RDBT.

Vehicle Reference:1 Car Going ahead
First point of impact:Offside
Vehicle direction: S to N Journey: Not known
Age of Driver : 60 Breath test:Not applicable

Contributory Factors : 405

Vehicle Reference:2 Motorcycle over 50cc and up to Going ahead
First point of impact:Nearside
Vehicle direction: E to W Journey: Not known
Age of Driver : 31 Breath test:Not applicable

Contributory Factors : 405

Casualty Reference 1 Age:31 Male Driver/rider Severity:Serious
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00020-11 10/01/2011 Monday Time:0820 Vehicles 2 Casualties 1 Slight
Easting: 438,023 Northing: 408,598
Raining without high winds Road Surface:Frost/Ice Daylight: street lighting unknown
Road Type: One way street Speed Limit: 30

Location: BARNSLEY RD LUNDWOOD J/W PONTEFRACT RD
Description:BOTH VEHS TV SAME DIRC (TV FROM DIRC OF CUDWORTH TW LUNDWOOD)WHEN V1 STARTED TO SLIDE ON ICE, V2 BRAKED BUT SKIDDED & COLL WITH V1

Vehicle Reference1 Car Slowing or Stopping
First point of impact:Back
Vehicle direction: E to SW Journey: Taking pupil to/from school
Age of Driver : 35 Breath test:Not requested

Contributory Factors : 103 103 409 707 707

Vehicle Reference2 Car Slowing or Stopping
First point of impact:Back
Vehicle direction: E to SW Journey: Not known
Age of Driver : 30 Breath test:Not requested

Contributory Factors : 103 103 409 707 707

Casualty Reference 1 Age:30 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00048-11 13/01/2011 Thursday Time:0945 Vehicles 2 Casualties 1 Serious
Easting: 437,127 Northing: 406,562
Fine without high winds Road Surface:Wet/Damp Daylight: no street lighting
Road Type: Unknown Speed Limit: 20

Location: D MARSDEN GARAGE GRANGE LN BARNSLEY
Description:V1 REVERSED OUT OF GARAGE AND COLL WITH V2 CAUSING PED TO JUMP OUT OF WAY, FALL AND BREAK WRIST.

Vehicle Reference1 Car Reversing
First point of impact:Front
Vehicle direction: E to W Journey: Not known
Age of Driver : 64 Breath test:Not requested

Contributory Factors : 405

Vehicle Reference2 Car Parked
First point of impact:Front
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : 63 Breath test:Driver not contacted

Contributory Factors : 405

Casualty Reference 1 Age:62 Female Passenger Severity:Serious
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00063-11 17/01/2011 Monday Time:1237 Vehicles 2 Casualties 2 Slight
Easting: 437,128 Northing: 406,561
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Roundabout Speed Limit: 40

Location: GRANGE LN STAIRFOOT J/W R/ABOUT
Description:BOTH VEHS TV IN SAME DIRC. V2 STATIONARY AT ATS WITH V1 BEHIND WAITING FOR TRAFFIC LIGHTS TO CHANGE. V2 SET OFF & V1 RAN INTO BACK OF V2.

Vehicle Reference:1 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: N to S Journey: Not known
Age of Driver : 24 Breath test:Not requested

Contributory Factors :

Casualty Reference:2 Age:24 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Moving off
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 26 Breath test:Not provided (medical)

Contributory Factors :

Casualty Reference:1 Age: Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00080-11 20/01/2011 Thursday Time:1720 Vehicles 2 Casualties 1 Slight
Easting: 437,239 Northing: 406,817
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:V2 TV DOWN PONTEFRACT RD (FROM DIRC OF CUNDY CROSS TW CUDWORTH) AS V2 BEGAN TO O/T V1, V1 BEGAN TO TURN R TO PULL UP O/S HOME ADDRESS & COLL OCCURRED.

Vehicle Reference:1 Car Turning right
First point of impact:Offside
Vehicle direction: SW to E Journey: Not known
Age of Driver : 18 Breath test:Not requested

Contributory Factors : 405 405 406 406

Vehicle Reference:2 Motorcycle over 50cc and up to Overtaking moving vehicle on its offside
First point of impact:Front
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 45 Breath test:Not requested

Contributory Factors : 405 405 406 406

Casualty Reference 1 Age:45 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00096-11 24/01/2011 Monday Time:1420 Vehicles 2 Casualties 1 Slight
Easting: 437,354 Northing: 407,027
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:V2 SLOWING DOWN DUE TO VOLUME OF TF, V1 FOLLOWING FAILED TO REACT IN TIME AND COLL WITH REAR OF V2.

Vehicle Reference:1 Car Going ahead
First point of impact:Nearside
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 60 Breath test:Negative

Contributory Factors : 308

Vehicle Reference:2 Car Slowing or Stopping
First point of impact:Back
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 64 Breath test:Negative

Contributory Factors : 308

Casualty Reference:1 Age:64 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00130-11 02/02/2011 Wednesday Time:1220 Vehicles 2 Casualties 1 Slight
Easting: 437,357 Northing: 407,036
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:V1 TV ALONG A628 IN DIRC OF PONTEFRACT WHEN V2 COLL WITH REAR OF V1. V2 THEN LEFT SCENE.

Vehicle Reference:1 Car Going ahead
First point of impact:Did not impact
Vehicle direction: S to N Journey: Not known
Age of Driver : 40 Breath test:Not requested

Contributory Factors :

Casualty Reference 1 Age:40 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: S to N Journey: Not known
Age of Driver : Breath test:Not requested

Contributory Factors :

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00151-11 08/02/2011 Tuesday Time:1615 Vehicles 1 Casualties 1 Slight
Easting: 437,471 Northing: 407,380
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 50 MTS FROM J/W VINCENT RD
Description:V1 TV ALONG A628 TW CUNDY CROSS WHEN PED RAN FROM BEHIND PARKED VEHS INTO PATH OF V1.

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 25 Breath test:Negative

Contributory Factors : 801 802 808

Casualty Reference 1 Age:14 Female Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's nearside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00178-11 17/02/2011 Thursday Time:1810 Vehicles 2 Casualties 1 Slight
Easting: 437,101 Northing: 406,647
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 30

Location: CUNDY CROSS ROUNDABOUT LUNDWOOD AT J/W PONTEFRACT RD
Description:V1 EXITING RDBT WHEN HE WAS HIT FROM BEHIND BY V2 WHO THEN LEFT SCENE.

Vehicle Reference1 Car Going ahead
First point of impact:Did not impact
Vehicle direction: SW to NE Journey: Journey as part of work
Age of Driver : 18 Breath test:Driver not contacted

Contributory Factors : 307 308

Casualty Reference 1 Age:16 Male Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference2 Car Going ahead
First point of impact:Front
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 46 Breath test:Driver not contacted

Contributory Factors : 307 308

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00364-11 20/04/2011 Wednesday Time: 2106 Vehicles 2 Casualties 1 Serious
Easting: 437,935 Northing: 408,596
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 30

Location: PONTEFRACT RD CUDWORTH AT J/W BURTON RD
Description: V1 ENTERED RDBT, V2 FOLLOWING COLLIDED WITH REAR OF V1 KNOCKING RIDER OFF HIS MOT CYC.

Vehicle Reference: 1 Motorcycle over 50cc and up to Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: SE to NW Journey: Not known
Age of Driver : 30 Breath test: Not requested

Contributory Factors : 405

Casualty Reference: 1 Age: 30 Male Driver/rider Severity: Serious
Ped Dir: Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference: 2 Car Waiting to go ahead but held up
First point of impact: Front
Vehicle direction: SE to NW Journey: Not known
Age of Driver : 60 Breath test: Not requested

Contributory Factors : 405

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00487-11 26/05/2011 Thursday Time:1538 Vehicles 1 Casualties 1 Slight
Easting: 437,239 Northing: 406,899
Other Road Surface:Wet/Damp Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: LITTLEWORTH LN MONK BRETTON 50 MTS FROM PONTEFRACT RD
Description:CHILD RAN OUT FROM BETWEEN PARKED VEH'S AND COLL WITH V1.

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: SE to NW Journey: Not known
Age of Driver : 21 Breath test:Negative

Contributory Factors : 802 801 808

Casualty Reference:1 Age:11 Female Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's offside masked
Ped Location:In carr elsewhere

B-00548-11 09/06/2011 Thursday Time:1735 Vehicles 1 Casualties 1 Slight
Easting: 437,263 Northing: 406,867
Fine without high winds Road Surface:Dry Daylight: no street lighting
Road Type: Single carriageway Speed Limit: 30

Location: LITTLEWORTH LN LUNDWOOD J/W PONTEFRACT RD
Description:V1 TURNS L FROM A628 ONTO LITTLEWORTH LN & COLL WITH PED XING RD

Vehicle Reference:1 Car Turning left
First point of impact:Front
Vehicle direction: SW to NW Journey: Commuting to/from work
Age of Driver : 20 Breath test:Negative

Contributory Factors : 405 802

Casualty Reference:1 Age:7 Female Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's nearside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00625-11 08/07/2011 Friday Time:1640 Vehicles 2 Casualties 1 Slight
Easting: 437,997 Northing: 408,608
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Roundabout Speed Limit: 30

Location: BARNSLEY RD CUDWORTH
Description:V1 APP R/ABOUT AFTER TV UNDER CUDWORTH BRIDGE. V1 STOPPED AS THERE WERE 2 VEHS IN FRONT WAITING TO ENTER R/ABOUT. V2 TV SAME DIRC COLL WITH REAR OF V1.

Vehicle Reference:1 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: E to SW Journey: Not known
Age of Driver : 42 Breath test:Driver not contacted

Contributory Factors : 203

Casualty Reference:1 Age:42 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: E to SW Journey: Not known
Age of Driver : Breath test:Driver not contacted

Contributory Factors : 203

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00871-11 12/09/2011 Monday Time:1224 Vehicles 1 Casualties 1 Slight
Easting: 437,972 Northing: 408,621
Fine with high winds Road Surface:Dry Daylight:street lights present
Road Type: Roundabout Speed Limit: 30

Location: PONTEFRACT RD CUDWORTH J/W BARNSLEY RD
Description:V1 (PCV) NEGOTIATING R/ABOUT TV FROM DIRECTION OF BARNSLEY TW SHAFTON. DRIVER WENT TO TAKE EXIT B4 THE ONE HE WANTED. HE CORRECTED HIS PATH & IN DOING SO A CHILD FELL FROM HIS SEAT.

Vehicle Reference:1 Bus or coach Going ahead right hand bend
First point of impact:Did not impact
Vehicle direction: SW to E Journey: Journey as part of work
Age of Driver : 37 Breath test:Driver not contacted

Contributory Factors : 403 409

Casualty Reference 1 Age:4 Male Passenger Severity:Slight

Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01047-11 24/10/2011 Monday Time:1034 Vehicles 2 Casualties 1 Slight
Easting: 437,408 Northing: 407,198
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD AT J/W HAROLD AVE
Description:VEH'S TR IN OPP DIRECTIONS WHEN V2 VEERED ACC CARR AND COLL WITH V1.

Vehicle Reference:1 Car Going ahead
First point of impact:Back
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 62 Breath test:Negative

Contributory Factors : 602

Casualty Reference 1 Age:62 Female Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 21 Breath test:Negative

Contributory Factors : 602

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01026-11 28/10/2011 Friday Time:1310 Vehicles 2 Casualties 1 Slight
Easting: 437,782 Northing: 408,110
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD LUNDWOOD J/W STATION RD
Description:V1 STATIONARY ON A628 WAITING FOR VEH IN FRONT TO TURN R ONTO STATION RD. V2 TV SAME DIRC & FAILED TO REALISE V1 WAS STATIONARY. V2 BRAKED TOO LATE & COLL WITH REAR OF V1.

Vehicle Reference:1 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: S to NE Journey: Not known
Age of Driver : 19 Breath test:Not requested

Contributory Factors : 405 408 406

Vehicle Reference:2 Car Going ahead
First point of impact:Front
Vehicle direction: S to N Journey: Not known
Age of Driver : 40 Breath test:Not requested

Contributory Factors : 405 408 406

Casualty Reference 1 Age:40 Female Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01253-11 26/12/2011 Monday Time:0649 Vehicles 2 Casualties 1 Slight
Easting: 437,970 Northing: 408,629
Fine without high winds Road Surface:Wet/Damp Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 60

Location: CUDWORTH PARKWAY RDBT CUDWORTH AT J/W PONTEFRACT RD
Description:V2 ON RDBT, V1 ENTERS RDBT INTO PATH OF V2 AND COLL OCC.

Vehicle Reference1 Car Moving off
First point of impact:Offside
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 47 Breath test:Negative

Contributory Factors : 405 406 103

Vehicle Reference2 Motorcycle 50cc and under Going ahead right hand bend
First point of impact:Front
Vehicle direction: SW to NE Journey: Journey as part of work
Age of Driver : 28 Breath test:Negative

Contributory Factors : 405 406 103

Casualty Reference 1 Age:28 Male Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00010-12 02/01/2012 Monday Time:1720 Vehicles 2 Casualties 1 Slight
Easting: 437,277 Northing: 406,866
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY J/W LITTLEWORTH LN
Description:V1 HAS TV THROUGH GREEN ATS ON A628 HEADING TW CUNDY CROSS WHEN YOUNG GIRL RODE HER BIKE ACROSS RD IN FRONT OF V1 & COLL OCCURRED.

Vehicle Reference:1 Car Going ahead
First point of impact:Offside
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 58 Breath test:Not requested

Contributory Factors : 405

Vehicle Reference:2 Pedal cycle Going ahead
First point of impact:Front
Vehicle direction: W to E Journey: Not known
Age of Driver : 6 Breath test:Not requested

Contributory Factors : 405

Casualty Reference 1 Age:6 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00042-12 16/01/2012 Monday Time:0805 Vehicles 1 Casualties 1 Slight
Easting: 436,981 Northing: 406,708
Other Road Surface:Wet/Damp Darkness: street lights present but unlit
Road Type: Single carriageway Speed Limit: 30

Location: ROTHERHAM RD BARNSLEY
Description:V1 TV ALONG A633 TW WAKEFIELD WHEN PED WALKED INTO RD INTO PATH OF V1.

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: SE to NW Journey: Journey as part of work
Age of Driver : 30 Breath test:Not requested

Contributory Factors : 801 802

Casualty Reference 1 Age:12 Female Pedestrian Severity:Slight
Ped Dir:9 Ped Movement : Driver's nearside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00203-12 02/03/2012 Friday Time:2035 Vehicles 1 Casualties 1 Slight
Easting: 437,225 Northing: 406,799
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY AT J/W TRUEMAN TERR
Description:PED RAN OUT FROM BEHIND BUS AND COLL WITH F/O/S OF VEH.

Vehicle Reference:1 Car Slowing or Stopping
First point of impact:Front
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 26 Breath test:Not requested

Contributory Factors : 802 803 805

Casualty Reference:1 Age:15 Male Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's nearside
Ped Location:Within 50m ped crossing

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00273-12 27/03/2012 Tuesday Time:1205 Vehicles 1 Casualties 2 Slight
Easting: 437,176 Northing: 406,442
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: GRANGE LN BARNSLEY
Description:VEH COLL WITH CENTRAL RES KERB.

Vehicle Reference:1 Car Going ahead
First point of impact:Offside
Vehicle direction: S to N Journey: Not known
Age of Driver : 35 Breath test:Not requested

Contributory Factors : 405

Casualty Reference:1 Age:35 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Casualty Reference:2 Age:29 Female Passenger Severity:Slight
Ped Dir:Pedestrian Dir Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00294-12 30/03/2012 Friday Time:2045 Vehicles 2 Casualties 1 Slight
Easting: 437,943 Northing: 408,590
Fine without high winds Road Surface:Dry Darkness: street lights present and lit
Road Type: Roundabout Speed Limit: 60

Location: CUDWORTH PARKWAY BARNSLEY AT J/W PONTEFRACT RD
Description:V1 ENTERED RDBT AND FAILED TO SEE V2 (ALREADY ON RDBT) AND COLL OCC.

Vehicle Reference:1 Car Moving off
First point of impact:Front
Vehicle direction: S to N Journey: Not known
Age of Driver : 58 Breath test:Not requested

Contributory Factors : 405 703

Vehicle Reference:2 Pedal cycle Going ahead
First point of impact:Nearside
Vehicle direction: N to NE Journey: Not known
Age of Driver : 38 Breath test:Not requested

Contributory Factors : 405 703

Casualty Reference 1 Age:38 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00288-12 04/04/2012 Wednesday Time:1210 Vehicles 1 Casualties 1 Slight
Easting: 437,381 Northing: 407,107
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT ROAD LUNDWOOD BARNSLEY J/W LUND LANE
Description:VEH1 INDICATED & BEGAN TO O/TAKE STAT BUS & COLL CAS1 WHO HAD CROSSED WITHOUT LOOKING

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 40 Breath test:Not requested

Contributory Factors : 802

Casualty Reference 1 Age:14 Male Pedestrian Severity:Slight
Ped Dir:9 Ped Movement : Driver's nearside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00325-12 05/04/2012 Thursday Time:1250 Vehicles 3 Casualties 4 Slight
Easting: 437,296 Northing: 406,895
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD 40 MTS FROM J/W LITTLEWORTH LN
Description:V2 STATIONARY AT ATS, V3 DIRECTLY BEHIND V2. V1 COLL WITH REAR OF V3, WHICH IN TURN WAS SHUNTED INTO REAR OF V2.

Vehicle Reference:1 Car Overtaking stationary vehicle on its offside
First point of impact:Nearside
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 88 Breath test:Not requested

Contributory Factors : 406

Vehicle Reference:2 Car Waiting to go ahead but held up
First point of impact:Did not impact
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 81 Breath test:Not requested

Contributory Factors : 406

Casualty Reference:1 Age:81 Male Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference:3 Age: Female Passenger Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

Vehicle Reference 3 Car Waiting to go ahead but held up
First point of impact: Back
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 73 Breath test: Not requested

Contributory Factors : 406

Casualty Reference 2 Age: 73 Male Driver/rider Severity: Slight
Ped Dir: Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Casualty Reference 4 Age: 73 Female Passenger Severity: Slight
Ped Dir: Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

B-00633-12 10/07/2012 Tuesday Time: 1400 Vehicles 1 Casualties 1 Slight
Easting: 438,066 Northing: 408,624
Fine without high winds Road Surface: Dry Daylight: street lights present
Road Type: Single carriageway Speed Limit: 30

Location: BARNSLEY RD CUDWORTH
Description: PED STEPPED OUT INTO PATH OF VEH AND COLL OCC.

Vehicle Reference 1 Car Going ahead
First point of impact: Front
Vehicle direction: W to E Journey: Not known
Age of Driver : 23 Breath test: Not requested

Contributory Factors : 802 803

Casualty Reference 1 Age: 31 Male Pedestrian Severity: Slight
Ped Dir: Pedestrian Di Ped Movement : Movement U/K
Ped Location: Location U/K

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00907-12 05/10/2012 Friday Time:1535 Vehicles 2 Casualties 1 Serious
Easting: 437,483 Northing: 407,426
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY J/W VINCENT RD
Description:PEDN STEPS OUT IN FRONT OF STAT BUS INTO PATH OF VEH AND A COLL OCCURS.

Vehicle Reference:1 Car Overtaking stationary vehicle on its offside
First point of impact:Front
Vehicle direction: N to S Journey: Not known
Age of Driver : 49 Breath test:Negative

Contributory Factors : 801 802 808

Casualty Reference:1 Age: Male Pedestrian Severity:Serious
Ped Dir:Pedestrian Di Ped Movement : Driver's nearside masked
Ped Location:In carr elsewhere

Vehicle Reference:2 Bus or coach Parked
First point of impact:Did not impact
Vehicle direction: Parked to Parked Journey: Journey as part of work
Age of Driver : 58 Breath test:Not requested

Contributory Factors : 801 802 808

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01016-12 06/11/2012 Tuesday Time:1600 Vehicles 1 Casualties 1 Serious
Easting: 437,346 Northing: 406,997
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD
Description:C1 WAITING AT PEDXING IS FLASHED BY A VEHICLE TO CREOSS, DESPITE LIGHTS SHOWING GREEN FOR VEHICLES. C1 RAN ACROSS THE RD & WAS STRUCK BY V1 AS HE CROSSED INTO THER SECOND LN.

Vehicle Reference:1 Car Slowing or Stopping
First point of impact:Front
Vehicle direction: NE to SW Journey: Commuting to/from work
Age of Driver : 24 Breath test:Not requested

Contributory Factors : 802 803 805 808

Casualty Reference:1 Age:13 Male Pedestrian Severity:Serious
Ped Dir:Pedestrian Dir Ped Movement : Driver's offside
Ped Location:On Ped Crossing

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01236-12 09/11/2012 Friday Time:1329 Vehicles 2 Casualties 1 Slight
Easting: 437,784 Northing: 408,106
Fine without high winds Road Surface:Dry Daylight:street lights present
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD LUNDWOOD BARNSLEY J/W STATION RD
Description:VEH1 MCAR FLASHED HEADLIGHTS TO ENABLE A VEH TO TURN R INTO STATION RD FROM PONTEFRACT RD. THE DRIVER OF THAT VEH THEN FLASHED VEH2 TO LEAVE THE JUNC TO TURN R. AS VEH1 LEAVES JUNCT IT COLL VEH2.

Vehicle Reference:1 Car Turning right
First point of impact:Front
Vehicle direction: S to NE Journey: Not known
Age of Driver : 23 Breath test:Negative

Contributory Factors : 404 405 406

Vehicle Reference:2 Car Going ahead
First point of impact:Offside
Vehicle direction: E to N Journey: Not known
Age of Driver : 47 Breath test:Negative

Contributory Factors : 404 405 406

Casualty Reference 1 Age:47 Female Driver/rider Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Not pedestrian
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-01065-12 26/11/2012 Monday Time:2034 Vehicles 1 Casualties 1 Slight
Easting: 437,578 Northing: 407,739
Raining without high winds Road Surface:Wet/Damp Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 40

Location: PONTEFRACT RD BARNSLEY J/W WILSON GR
Description:VEH1 MCAR TV ALG PONTEFRACT RD T/W CUDWORTH CLIPS R LEG OF CAS1 WHO WAS CROSSING C/WAY FROM VEH1 O/SIDE

Vehicle Reference:1 Car Going ahead
First point of impact:Nearside
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 46 Breath test:Negative

Contributory Factors : 707 802 803

Casualty Reference 1 Age:13 Female Pedestrian Severity:Slight
Ped Dir:Pedestrian Di Ped Movement : Driver's offside
Ped Location:In carr elsewhere

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

133682 30/01/2013 Wednesday Time:1700 Vehicles 2 Casualties 3 Serious
Easting: 437,896 Northing: 408,697
Raining with high winds Road Surface:Wet/Damp Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: UNCLASSIFIED WEST GREEN WAY X METRES FROM (MORE THAN 20M) 50 C 435 BURTON ROAD BARNSLEY SOUTH YORKSHIRE
Description:V1 travelling along West Green Way towards roundabout. V1 has come off roundabout onto West Green Way but lost control, colliding with V1.

Vehicle Reference1 Car Going ahead
First point of impact:Front
Vehicle direction: NW to SE Journey: Not known
Age of Driver : 17 Breath test:

Contributory Factors : 410 602 103

Casualty Reference 1 Age:17 Female Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference 3 Age:62 Male Passenger Severity:Serious
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference2 Car Going ahead
First point of impact:Nearside
Vehicle direction: SE to NW Journey: Journey as part of work
Age of Driver : 29 Breath test:

Contributory Factors : 410 602 103

Casualty Reference 2 Age:29 Male Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00069-13 19/03/2013 Tuesday Time:0915 Vehicles 2 Casualties 1 Slight
Easting: 437,815 Northing: 408,598
Fine without high winds Road Surface:Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD BARNSLEY 20MTRS TUMBLING LN
Description:V1 TV PONTEFRACT RD DRIVER IS DISTRACTED AND COLL INTO REAR OF V2.

Vehicle Reference:1 Van or Goods <= 3.5 tonnes m Going ahead
First point of impact:Front
Vehicle direction: W to E Journey: Journey as part of work
Age of Driver : 19 Breath test:Not requested

Contributory Factors : 405 408 602

Vehicle Reference:2 Car Waiting to go ahead but held up
First point of impact:Back
Vehicle direction: W to E Journey: Not known
Age of Driver : 24 Breath test:Not requested

Contributory Factors : 405 408 602

Casualty Reference 1 Age:24 Female Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00188-13 04/05/2013 Saturday Time:1335 Vehicles 2 Casualties 1 Slight
Easting: 437,271 Northing: 406,868
Unknown Road Surface:Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD BARNSLEY LITTLEWORTH LN
Description:V1 TV PONTEFRACT RD TW CUDWORTH FOLLOWING V2 WHICH SLOWS. V1 ALSO SLOWS. V2 TURNS OFF ALLOWING V1 TO EASE OFF BRAKES BUT V2 SUDDENLY STOPS. V1 BRAKES AND PASS FALLS.

Vehicle Reference:1 Bus or coach Slowing or Stopping
First point of impact:Did not impact
Vehicle direction: SW to NE Journey: Journey as part of work
Age of Driver : 26 Breath test:Not requested

Contributory Factors : 403 408

Casualty Reference 1 Age:83 Female Passenger Severity:Slight

Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference:2 Car Turning left
First point of impact:Did not impact
Vehicle direction: SW to NW Journey: Other
Age of Driver : 44 Breath test:Driver not contacted

Contributory Factors : 403 408

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00202-13 09/05/2013 Thursday Time:1010 Vehicles 2 Casualties 1 Slight
Easting: 437,873 Northing: 408,353
Fine without high winds Road Surface:Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT RD LUNDWOOD BARNSLEY
Description:BUS HAD TO BRAKE TO AVOID A CAR O/TAKING ANOTHER VEH. LADY FELL FORWARD INTO SEATS CAUSING INJ TO WRISTS

Vehicle Reference:1 Bus or coach Slowing or Stopping
First point of impact:Did not impact
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 39 Breath test:Driver not contacted

Contributory Factors : 408

Casualty Reference 1 Age: Female Passenger Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference:2 Car Going ahead
First point of impact:Did not impact
Vehicle direction: NE to SW Journey: Other
Age of Driver : 21 Breath test:Driver not contacted

Contributory Factors : 408

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00341-13 25/06/2013 Tuesday Time:1815 Vehicles 2 Casualties 1 Slight
Easting: 437,964 Northing: 408,597
Unknown Road Surface:Dry Daylight
Road Type: Roundabout Speed Limit: 30

Location: BARNSLEY RD CUDWORTH
Description:V1 ON ROUNDABOUT. V2 COLL WITH O/S.

Vehicle Reference:1 Car Turning right
First point of impact:Offside
Vehicle direction: E to SW Journey: Other
Age of Driver : 51 Breath test:Not requested

Contributory Factors : 405

Vehicle Reference:2 Motorcycle 50cc and under Turning right
First point of impact:Did not impact
Vehicle direction: NE to SW Journey: Other
Age of Driver : Breath test:Not requested

Contributory Factors : 405

Casualty Reference 1 Age: Male Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00423-13 14/07/2013 Sunday Time:1012 Vehicles 2 Casualties 1 Slight
Easting: 437,411 Northing: 407,204
Fine without high winds Road Surface:Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT ROAD BARNSLEY
Description:V2 HAS TURNED INTO THE PATH OF V1 AND COLL

Vehicle Reference:1 Car Going ahead
First point of impact:Front
Vehicle direction: N to W Journey: Not known
Age of Driver : 52 Breath test:Not requested

Contributory Factors : 405 403

Casualty Reference 1 Age:52 Male Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference:2 Car Slowing or Stopping
First point of impact:Front
Vehicle direction: S to N Journey: Not known
Age of Driver : 28 Breath test:Not requested

Contributory Factors : 405 403

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00531-13 17/07/2013 Wednesday Time:1730 Vehicles 1 Casualties 1 Serious
Easting: 437,584 Northing: 407,741
Fine without high winds Road Surface:Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT ROAD LUNDWOOD AT JUNC WILSON GROVE
Description:VEH1[M/CYCLIST] FILTERING ALONG PONTEFRACT ROAD TOWARDS CUDWORTH. UNKNOWN VEHICLE PULLS INTO PATH CAUSING RIDER TO BRAKE HEAVILY, LOSE CONTROL AND FALL FROM VEHICLE. NO CONTACT MADE WITH ANY OTHER VEHICLE.

Vehicle Reference:1 Motorcycle over 500cc Slowing or Stopping
First point of impact:Did not impact
Vehicle direction: SW to NE Journey: Not known
Age of Driver : 46 Breath test:Not provided (medical)

Contributory Factors : 308 803

Casualty Reference:1 Age:46 Male Driver/rider Severity:Serious
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00674-13 29/10/2013 Tuesday Time: 2035 Vehicles 2 Casualties 2 Slight
Easting: 437,368 Northing: 407,060
Fine without high winds Road Surface: Dry Darkness: street lights present and lit
Road Type: Single carriageway Speed Limit: 30

Location: O/S COMMUNITY CENTRE ON PONTEFRACT RD BARNSLEY
Description: V1 WAS TR ALONG CARR WHEN V2 CAME FROM RIGHT AND COLL WITH V1.

Vehicle Reference: 1 Bus or coach Going ahead
First point of impact: Offside
Vehicle direction: NE to SW Journey: Journey as part of work
Age of Driver : 59 Breath test: Driver not contacted

Contributory Factors : 405

Casualty Reference: 1 Age: 59 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Front
Vehicle direction: NW to SE Journey: Other
Age of Driver : 86 Breath test: Driver not contacted

Contributory Factors : 405

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection: **Notes:**
Selected using Build Query : Local_auth = 'BARNSLEY' **WSP George Maclean**

B-00692-13 02/11/2013 Saturday Time:1220 Vehicles 2 Casualties 1 Slight
Easting: 437,783 Northing: 408,111
Fine with high winds Road Surface:Wet/Damp Daylight
Road Type: Single carriageway Speed Limit: 30

Location: PONTEFRACT ROAD BARNSLEY J/W STATION ROAD
Description:V2 PULLED OUT FROM JUNCTION BETWEEN WAITING TRAFFIC AT TEMPORARY TRAFFIC LIGHTS. V1 PASSING AND COLL WITH V2.

Vehicle Reference:1 Motorcycle over 50cc and up to Going ahead
First point of impact:Front
Vehicle direction: N to S Journey: Other
Age of Driver : 23 Breath test:Not requested

Contributory Factors : 405 405 701 103

Casualty Reference 1 Age:23 Male Driver/rider Severity:Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference:2 Car Waiting to turn right
First point of impact:Front
Vehicle direction: E to N Journey: Other
Age of Driver : 56 Breath test:Negative

Contributory Factors : 405 405 701 103

Accidents between dates 01/01/2009 and 31/12/2013 (60) months
Selection:
Selected using Build Query : Local_auth = 'BARNSLEY'

Notes:
WSP George Maclean

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	6	41	47
2-wheeled motor vehicles	0	3	4	7
Pedal cycles	0	1	3	4
Horses & other	0	0	0	0
Total	0	10	48	58

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	24	24
Passenger	0	3	20	23
Motorcycle ride	0	3	4	7
Cyclist	0	1	3	4
Pedestrian	0	3	10	13
Other	0	0	0	0
Total	0	10	61	71

Accidents between dates **01/01/2009 and 31/12/2013** (60) months

Selection:
Selected using Build Query : Local_auth = 'BARNSLEY'

Notes:
WSP George Maclean

Police Ref.	Acc Class	Date	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
B-00292-09	Slight	12/03/2009	1517	437842 408289	0	0	1	408V1B	0 0 0	Light	Fine with high winds	Dry	11
B-00353-09	Slight	30/03/2009	1520	438016 408602	0	0	1		0 0 0	Light	Fine without high winds	Dry	9 9
B-00452-09	Slight	28/04/2009	1700	437323 406946	0	0	1	602V2A 403V2A 405V2A	0 0 0	Light	Fine without high winds	Dry	9 9
B-00662-09	Slight	19/06/2009	1430	437073 406616	0	0	1	308V1B 408V1A	0 0 0	Light	Fine without high winds	Dry	11
B-00707-09	Slight	30/06/2009	1745	437014 406698	0	0	1		0 0 0	Light	Fine without high winds	Dry	9 9 9
B-00779-09	Slight	18/07/2009	1826	437206 406774	0	0	1	802C1A 803C1A	1 3 3	Light	Fine without high winds	Dry	9
B-00927-09	Slight	03/09/2009	1320	438159 408651	0	0	1	405V2A 602V2A	0 0 0	Light	Fine without high winds	Dry	9 9
B-01162-09	Serious	24/10/2009	1725	438020 408602	0	1	0	403V2A	0 0 0	Light	Fine without high winds	Wet/Damp	1 9 9
B-01179-09	Slight	04/11/2009	1447	437780 408112	0	0	1	903V1A	0 0 0	Light	Fine without high winds	Dry	14 9
B-01388-09	Slight	10/12/2009	1700	437145 406519	0	0	1	304C1A 310C1A	0 0 0	Dark	Fine without high winds	Dry	1 9
B-01444-09	Slight	20/12/2009	1345	437548 407617	0	0	1	801C1A 710V1A	0 0 0	Light	Fine without high winds	Dry	11
B-00080-10	Slight	23/01/2010	1505	437649 407852	0	0	1	408V1A	0 0 0	Light	Fine without high winds	Dry	11
B-00149-10	Slight	31/01/2010	1930	438068 408626	0	0	2	408V1B 306V1B 410V1A	0 0 0	Dark	Fine without high winds	Dry	9
B-00240-10	Slight	23/02/2010	1600	437409 407175	0	0	1	802C1A 405V1B	5 9 9	Light	Fine without high winds	Dry	20
B-00943-10	Slight	10/09/2010	1227	437353 407011	0	0	1	408V1A	0 0 0	Light	Fine without high winds	Dry	11
B-01037-10	Slight	01/10/2010	1645	437134 406673	0	0	2	103V1A 307V1B 410V1A 605V1B	0 0 0	Light	Raining without high winds	Wet/Damp	11 9
B-01109-10	Slight	13/10/2010	0942	437489 407433	0	0	1	308V2A 406V2A	0 0 0	Light	Fine without high winds	Dry	9 9
B-01123-10	Slight	23/10/2010	0215	437911 408430	0	0	2	306V1B 501V1B 502V1B	0 0 0	Dark	Fine without high winds	Dry	9
B-01384-10	Serious	18/11/2010	1936	437379 407096	0	1	0	808C1A 805C1A 806C1B 807C1B 802C1A 803C1A	5 1 9	Dark	Other	Wet/Damp	9
B-01247-10	Serious	28/11/2010	0229	437014 406696	0	1	2	501V2A 410V2A 306V2B 999V2A	0 0 0	Dark	Other	Frost/Ice	9 9
B-01370-10	Serious	22/12/2010	1230	437104 406656	0	1	0	405V1A	0 0 0	Light	Fine without high winds	Wet/Damp	3 9
B-00020-11	Slight	10/01/2011	0820	438023 408598	0	0	1	103V1A 103V2A 409V2A 707V1A 707V2A	0 0 0	Light	Raining without high winds	Frost/Ice	9 9
B-00048-11	Serious	13/01/2011	0945	437127 406562	0	1	0	405V1A	0 0 0	Light	Fine without high winds	Wet/Damp	9 9

Accidents between dates **01/01/2009 and 31/12/2013** (60) months

Selection:
Selected using Build Query : Local_auth = 'BARNSLEY'

Notes:
WSP George Maclean

Police Ref.	Acc Class	Date	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
B-00063-11	Slight	17/01/2011	1237	437128 406561	0	0	2		0 0 0	Light	Fine without high winds	Dry	9 9
B-00080-11	Slight	20/01/2011	1720	437239 406817	0	0	1	405V1B 405V2B 406V1B 406V2B	0 0 0	Dark	Fine without high winds	Dry	3 9
B-00096-11	Slight	24/01/2011	1420	437354 407027	0	0	1	308V1A	0 0 0	Light	Fine without high winds	Dry	9 9
B-00130-11	Slight	02/02/2011	1220	437357 407036	0	0	1		0 0 0	Light	Fine without high winds	Dry	9 9
B-00151-11	Slight	08/02/2011	1615	437471 407380	0	0	1	801C1A 802C1A 808C1A	5 1 7	Light	Fine without high winds	Dry	9
B-00178-11	Slight	17/02/2011	1810	437101 406647	0	0	1	307V2B 308V2B	0 0 0	Dark	Fine without high winds	Dry	9 9
B-00364-11	Serious	20/04/2011	2106	437935 408596	0	1	0	405V2A	0 0 0	Dark	Fine without high winds	Dry	3 9
B-00487-11	Slight	26/05/2011	1538	437239 406899	0	0	1	802C1A 801C1A 808C1A	5 4 7	Light	Other	Wet/Damp	9
B-00548-11	Slight	09/06/2011	1735	437263 406867	0	0	1	405V1B 802C1A	5 1 4	Light	Fine without high winds	Dry	9
B-00625-11	Slight	08/07/2011	1640	437997 408608	0	0	1	203V2B	0 0 0	Light	Fine without high winds	Dry	9 9
B-00871-11	Slight	12/09/2011	1224	437972 408621	0	0	1	403V1A 409V1B	0 0 0	Light	Fine with high winds	Dry	11
B-01047-11	Slight	24/10/2011	1034	437408 407198	0	0	1	602V2A	0 0 0	Light	Fine without high winds	Dry	9 9
B-01026-11	Slight	28/10/2011	1310	437782 408110	0	0	1	405V2A 408V2B 406V2B	0 0 0	Light	Fine without high winds	Dry	9 9
B-01253-11	Slight	26/12/2011	0649	437970 408629	0	0	1	405V1A 406V1A 103V2B	0 0 0	Dark	Fine without high winds	Wet/Damp	2 9
B-00010-12	Slight	02/01/2012	1720	437277 406866	0	0	1	405V2A	0 0 0	Dark	Fine without high winds	Dry	1 9
B-00042-12	Slight	16/01/2012	0805	436981 406708	0	0	1	801C1A 802C1A	5 1 9	Dark	Other	Wet/Damp	9
B-00203-12	Slight	02/03/2012	2035	437225 406799	0	0	1	802C1A 803C1A 805C1A	4 1 3	Dark	Fine without high winds	Dry	9
B-00273-12	Slight	27/03/2012	1205	437176 406442	0	0	2	405V1A	0 0 0	Light	Fine without high winds	Dry	9
B-00294-12	Slight	30/03/2012	2045	437943 408590	0	0	1	405V1A 703V1B	0 0 0	Dark	Fine without high winds	Dry	9 1
B-00288-12	Slight	04/04/2012	1210	437381 407107	0	0	1	802C1A	5 1 9	Light	Fine without high winds	Dry	9
B-00325-12	Slight	05/04/2012	1250	437296 406895	0	0	4	406V1A	0 0 0	Light	Fine without high winds	Dry	9 9 9
B-00633-12	Slight	10/07/2012	1400	438066 408624	0	0	1	802C1A 803C1A	10 9 0	Light	Fine without high winds	Dry	9
B-00907-12	Serious	05/10/2012	1535	437483 407426	0	1	0	801C1A 802C1A 808C1A	5 2 7	Light	Fine without high winds	Dry	11 9
B-01016-12	Serious	06/11/2012	1600	437346 406997	0	1	0	802C1A 803C1B 805C1B 808C1B	1 3 5	Light	Fine without high winds	Dry	9

Accidents between dates **01/01/2009 and 31/12/2013** (60) months

Selection:
Selected using Build Query : Local_auth = 'BARNSLEY'

Notes:
WSP George Maclean

Police Ref.	Acc Class	Date	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
B-01236-12	Slight	09/11/2012	1329	437784 408106	0	0	1	404V1B 405V2B 406V2B	0 0 0	Light	Fine without high winds	Dry	9 9
B-01065-12	Slight	26/11/2012	2034	437578 407739	0	0	1	707V1B 802C1B 803C1B	5 3 7	Dark	Raining without high winds	Wet/Damp	9
133682	Serious	30/01/2013	1700	437896 408697	0	1	2	410V2A 602V2A 103V2B	0 0 0	Dark	Raining with high winds	Wet/Damp	9 9
B-00069-13	Slight	19/03/2013	0915	437815 408598	0	0	1	405V1A 408V1A 602V2B	0 0 0	Light	Fine without high winds	Wet/Damp	9 19
B-00188-13	Slight	04/05/2013	1335	437271 406868	0	0	1	403V2A 408V2A	0 0 0	Light	Unknown	Dry	11 9
B-00202-13	Slight	09/05/2013	1010	437873 408353	0	0	1	408V1B	0 0 0	Light	Fine without high winds	Dry	11 9
B-00341-13	Slight	25/06/2013	1815	437964 408597	0	0	1	405V1A	0 0 0	Light	Unknown	Dry	9 2
B-00423-13	Slight	14/07/2013	1012	437411 407204	0	0	1	405V1A 403V2B	0 0 0	Light	Fine without high winds	Dry	9 9
B-00531-13	Serious	17/07/2013	1730	437584 407741	0	1	0	308V1A 803V1A	0 0 0	Light	Fine without high winds	Dry	5
B-00674-13	Slight	29/10/2013	2035	437368 407060	0	0	2	405V2A	0 0 0	Dark	Fine without high winds	Dry	11 9
B-00692-13	Slight	02/11/2013	1220	437783 408111	0	0	1	405V1B 405V2B 701V1B 103V1B	0 0 0	Light	Fine with high winds	Wet/Damp	9 3
Column Totals					0	10	0						

Total number of accidents listed: 58

Appendix 5

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTERFRACT ROAD / WILSON GROVE

ARM: PONTEFRACT ROAD SOUTH

TIME / CLASS	LEFT TO WILSON GROVE								STRAIGHT TO PONTEFRACT ROAD NORTH								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	0	0	2	0	0	0	2	0	0	2	108	10	5	3	128	130
7:45 - 8:00	0	0	0	0	0	0	0	0	0	0	0	126	21	7	6	160	160
8:00 - 8:15	0	0	0	1	0	0	0	1	0	1	1	130	18	6	4	160	161
8:15 - 8:30	0	0	0	1	0	0	0	1	0	0	0	118	15	14	3	150	151
HOURLY TOTAL	0	0	0	4	0	0	0	4	0	1	3	482	64	32	16	598	602
8:30 - 8:45	0	0	0	0	1	0	0	1	1	0	1	83	15	7	1	108	109
8:45 - 9:00	0	0	0	0	0	0	0	0	1	0	1	97	13	5	2	119	119
9:00 - 9:15	0	0	0	3	0	0	0	3	0	0	0	83	9	6	8	106	109
9:15 - 9:30	0	0	0	1	0	0	0	1	1	0	1	74	11	5	1	93	94
HOURLY TOTAL	0	0	0	4	1	0	0	5	3	0	3	337	48	23	12	426	431
PERIOD TOTAL	0	0	0	8	1	0	0	9	3	1	6	819	112	55	28	1024	1033
16:00 - 16:15	0	0	0	1	0	0	0	1	0	3	0	162	19	7	6	197	198
16:15 - 16:30	0	0	0	8	0	0	0	8	0	1	0	175	29	4	2	211	219
16:30 - 16:45	0	0	0	1	0	0	0	1	0	0	0	182	17	5	4	208	209
16:45 - 17:00	0	0	0	1	0	0	0	1	0	0	0	197	19	3	2	221	222
HOURLY TOTAL	0	0	0	11	0	0	0	11	0	4	0	716	84	19	14	837	848
17:00 - 17:15	2	0	0	7	0	0	0	9	1	1	0	180	15	1	4	202	211
17:15 - 17:30	1	0	0	11	1	0	0	13	0	1	0	187	10	1	3	202	215
17:30 - 17:45	0	0	0	6	0	0	0	6	0	2	0	181	16	3	5	207	213
17:45 - 18:00	0	0	0	4	2	0	0	6	0	0	0	169	15	2	4	190	196
HOURLY TOTAL	3	0	0	28	3	0	0	34	1	4	0	717	56	7	16	801	835
18:00 - 18:15	0	0	0	5	0	0	0	5	0	1	0	172	11	3	3	190	195
18:15 - 18:30	0	0	0	2	0	0	0	2	0	0	1	154	13	4	2	174	176
HOURLY TOTAL	0	0	0	7	0	0	0	7	0	1	1	326	24	7	5	364	371
PERIOD TOTAL	3	0	0	46	3	0	0	52	1	9	1	1759	164	33	35	2002	2054

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTERFRACT ROAD / WILSON GROVE

ARM: WILSON GROVE

TIME / CLASS	LEFT TO PONTEFRACT ROAD NORTH								RIGHT TO PONTEFRACT ROAD SOUTH								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	0	0	2	0	0	0	2	0	0	0	2	0	0	0	2	4
7:45 - 8:00	0	0	0	3	0	0	0	3	0	0	0	4	0	0	0	4	7
8:00 - 8:15	0	0	0	5	0	0	0	5	0	0	0	5	0	0	0	5	10
8:15 - 8:30	0	0	0	2	0	0	0	2	0	0	0	0	1	0	0	1	3
HOURLY TOTAL	0	0	0	12	0	0	0	12	0	0	0	11	1	0	0	12	24
8:30 - 8:45	2	0	0	1	0	0	0	3	0	0	0	4	0	0	0	4	7
8:45 - 9:00	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	3
9:00 - 9:15	0	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	3
9:15 - 9:30	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	1	3
HOURLY TOTAL	2	0	2	5	0	0	0	9	0	0	0	7	0	0	0	7	16
PERIOD TOTAL	2	0	2	17	0	0	0	21	0	0	0	18	1	0	0	19	40
16:00 - 16:15	0	0	0	2	0	0	0	2	0	0	0	4	0	0	0	4	6
16:15 - 16:30	0	0	0	1	0	0	0	1	0	0	0	3	0	0	0	3	4
16:30 - 16:45	0	0	0	1	0	0	0	1	2	0	0	5	0	0	0	7	8
16:45 - 17:00	0	0	0	1	0	0	0	1	0	0	0	8	0	0	0	8	9
HOURLY TOTAL	0	0	0	5	0	0	0	5	2	0	0	20	0	0	0	22	27
17:00 - 17:15	0	0	0	1	1	0	0	2	0	0	0	1	0	0	0	1	3
17:15 - 17:30	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	3
17:30 - 17:45	0	0	0	2	0	0	0	2	0	0	0	2	2	0	0	4	6
17:45 - 18:00	0	0	0	2	0	0	0	2	0	0	0	3	0	0	0	3	5
HOURLY TOTAL	0	0	0	6	1	0	0	7	0	0	0	8	2	0	0	10	17
18:00 - 18:15	0	0	0	1	0	0	0	1	0	0	0	2	0	0	0	2	3
18:15 - 18:30	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	1	3
HOURLY TOTAL	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0	3	6
PERIOD TOTAL	0	0	0	14	1	0	0	15	2	0	0	31	2	0	0	35	50

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTERFRACT ROAD / WILSON GROVE

ARM: PONTEFRACT ROAD NORTH

TIME / CLASS	STRAIGHT TO PONTEFRACT ROAD SOUTH								RIGHT TO WILSON GROVE								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	1	3	129	21	3	3	160	0	0	0	1	0	0	0	1	161
7:45 - 8:00	1	1	1	136	32	6	4	181	0	0	0	0	1	0	0	1	182
8:00 - 8:15	0	0	1	194	32	2	2	231	0	0	0	0	0	0	0	0	231
8:15 - 8:30	0	1	1	216	22	4	3	247	2	0	0	4	0	0	0	6	253
HOURLY TOTAL	1	3	6	675	107	15	12	819	2	0	0	5	1	0	0	8	827
8:30 - 8:45	1	0	1	146	15	8	8	179	0	0	0	1	1	0	0	2	181
8:45 - 9:00	0	1	2	132	13	7	2	157	0	0	0	1	0	0	0	1	158
9:00 - 9:15	0	0	0	169	23	7	5	204	0	0	0	1	0	0	0	1	205
9:15 - 9:30	0	0	0	134	13	6	4	157	0	0	0	2	0	0	0	2	159
HOURLY TOTAL	1	1	3	581	64	28	19	697	0	0	0	5	1	0	0	6	703
PERIOD TOTAL	2	4	9	1256	171	43	31	1516	2	0	0	10	2	0	0	14	1530
16:00 - 16:15	3	1	1	125	20	5	4	159	0	0	0	2	1	0	0	3	162
16:15 - 16:30	0	1	1	138	22	5	2	169	0	0	0	7	0	0	0	7	176
16:30 - 16:45	0	0	0	118	19	1	5	143	0	0	0	2	0	0	0	2	145
16:45 - 17:00	2	1	2	150	17	1	2	175	0	0	0	9	1	0	0	10	185
HOURLY TOTAL	5	3	4	531	78	12	13	646	0	0	0	20	2	0	0	22	668
17:00 - 17:15	4	0	4	141	14	1	6	170	0	0	0	4	0	0	0	4	174
17:15 - 17:30	0	0	2	163	28	4	1	198	0	0	0	5	0	0	0	5	203
17:30 - 17:45	0	1	1	142	12	2	3	161	0	0	0	3	0	0	0	3	164
17:45 - 18:00	0	1	2	138	14	2	2	159	0	0	0	4	1	0	0	5	164
HOURLY TOTAL	4	2	9	584	68	9	12	688	0	0	0	16	1	0	0	17	705
18:00 - 18:15	3	0	2	140	10	2	3	160	0	0	0	3	0	0	0	3	163
18:15 - 18:30	0	0	1	132	8	1	2	144	0	0	0	2	0	0	0	2	146
HOURLY TOTAL	3	0	3	272	18	3	5	304	0	0	0	5	0	0	0	5	309
PERIOD TOTAL	12	5	16	1387	164	24	30	1638	0	0	0	41	3	0	0	44	1682

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: BURTON ROAD / WEST GREEN WAY / CUDWORTH PARKWAY / BARNSLEY ROAD / PONTEFRACT ROAD

ARM: BURTON ROAD

TIME / CLASS	LEFT TO WEST GREEN WAY								LEFT TO CUDWORTH PARKWAY								STRAIGHT TO BARNSLEY ROAD								RIGH PONTEFRA			
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI
7:30 - 7:45	2	1	1	12	1	0	0	17	0	0	0	26	6	3	0	35	4	0	0	17	6	2	0	29	0	0	0	11
7:45 - 8:00	0	0	0	10	1	0	0	11	0	0	0	28	5	2	0	35	0	0	0	22	3	1	0	26	1	0	0	9
8:00 - 8:15	0	0	0	11	0	1	0	12	0	0	0	34	4	2	1	41	0	0	0	27	8	0	0	35	0	0	0	10
8:15 - 8:30	0	0	1	13	0	0	0	14	1	0	0	32	4	2	0	39	0	0	0	30	5	0	0	35	0	0	0	10
HOURLY TOTAL	2	1	2	46	2	1	0	54	1	0	0	120	19	9	1	150	4	0	0	96	22	3	0	125	1	0	0	40
8:30 - 8:45	0	0	0	17	0	0	0	17	0	0	0	30	3	1	0	34	0	0	0	34	1	0	0	35	0	0	0	10
8:45 - 9:00	0	0	0	22	1	0	0	23	1	0	0	26	5	2	0	34	0	0	0	39	6	0	0	45	1	0	0	9
9:00 - 9:15	0	0	0	7	0	0	0	7	1	0	0	17	6	1	1	26	0	0	0	29	6	0	0	35	0	0	0	9
9:15 - 9:30	0	0	1	8	0	0	0	9	2	0	0	22	3	1	0	28	0	0	0	24	5	0	0	29	0	0	0	8
HOURLY TOTAL	0	0	1	54	1	0	0	56	4	0	0	95	17	5	1	122	0	0	0	126	18	0	0	144	1	0	0	36
PERIOD TOTAL	2	1	3	100	3	1	0	110	5	0	0	215	36	14	2	272	4	0	0	222	40	3	0	269	2	0	0	76
16:00 - 16:15	0	0	1	8	4	2	0	15	0	0	0	34	3	2	0	39	0	0	1	30	4	2	0	37	1	0	0	14
16:15 - 16:30	0	0	1	10	2	0	0	13	0	0	0	41	2	1	0	44	0	0	0	32	2	0	0	34	0	0	0	14
16:30 - 16:45	2	0	0	11	1	0	0	14	1	0	0	37	2	1	0	41	0	0	0	36	5	0	0	41	1	0	0	16
16:45 - 17:00	0	0	0	13	2	0	0	15	0	0	0	44	2	1	0	47	0	0	0	34	3	0	0	37	0	0	0	15
HOURLY TOTAL	2	0	2	42	9	2	0	57	1	0	0	156	9	5	0	171	0	0	1	132	14	2	0	149	2	0	0	59
17:00 - 17:15	0	0	1	12	2	0	0	15	2	0	1	42	3	2	0	50	0	0	1	38	7	0	0	46	1	0	0	12
17:15 - 17:30	0	0	0	14	2	0	0	16	0	0	0	52	2	0	0	54	0	0	0	41	5	0	0	46	0	0	0	16
17:30 - 17:45	0	0	1	16	2	0	0	19	1	0	0	48	3	1	0	53	0	0	0	48	5	0	0	53	0	0	0	14
17:45 - 18:00	0	0	0	10	2	0	0	12	0	0	0	43	2	0	0	45	0	0	0	43	6	0	0	49	0	0	0	10
HOURLY TOTAL	0	0	2	52	8	0	0	62	3	0	1	185	10	3	0	202	0	0	1	170	23	0	0	194	1	0	0	52
18:00 - 18:15	0	0	1	8	1	0	0	10	1	0	2	33	2	0	0	38	0	0	0	30	4	0	0	34	0	0	0	7
18:15 - 18:30	0	0	0	7	1	0	0	8	0	0	0	28	1	0	0	29	0	0	0	24	3	0	0	27	0	0	0	4
HOURLY TOTAL	0	0	1	15	2	0	0	18	1	0	2	61	3	0	0	67	0	0	0	54	7	0	0	61	0	0	0	11
PERIOD TOTAL	2	0	5	109	19	2	0	137	5	0	3	402	22	8	0	440	0	0	2	356	44	2	0	404	3	0	0	122

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: BURTON ROAD / WEST GREEN WAY / CUDWORTH PARKWAY / BARNSLEY ROAD / PONTEFRACT ROAD

ARM: WEST GREEN WAY

IT TO ACT ROAD				TOTAL MOVEMENT FROM ARM	TIME / CLASS	LEFT TO CUDWORTH PARKWAY								LEFT TO BARNSLEY ROAD								STRAIGHT TO PONTEFRACT ROA				
LGV	HGV	BUS COACH	TOTAL			PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV
2	1	0	14	95	7:30 - 7:45	0	4	0	12	1	4	2	23	0	0	0	17	7	0	0	24	0	0	0	15	6
2	0	0	12	84	7:45 - 8:00	0	0	0	11	1	2	2	16	0	0	0	15	7	0	0	22	0	0	0	24	5
2	0	0	12	100	8:00 - 8:15	0	0	0	12	3	4	1	20	0	0	0	14	4	0	0	18	0	0	0	25	6
1	0	0	11	99	8:15 - 8:30	0	0	0	15	1	3	0	19	0	0	0	20	4	0	0	24	0	0	0	26	6
7	1	0	49	378	HOURLY TOTAL	0	4	0	50	6	13	5	78	0	0	0	66	22	0	0	88	0	0	0	90	23
0	0	0	10	96	8:30 - 8:45	0	0	0	6	1	5	0	12	0	0	0	29	4	0	0	33	0	0	0	14	6
0	0	0	10	112	8:45 - 9:00	0	0	0	10	2	3	0	15	0	0	0	24	6	0	0	30	0	0	0	20	4
0	1	0	10	78	9:00 - 9:15	0	1	0	10	3	4	0	18	0	0	0	25	3	0	0	28	0	0	0	14	4
0	0	0	8	74	9:15 - 9:30	0	0	0	8	4	4	0	16	0	0	0	23	5	0	0	28	0	0	0	16	5
0	1	0	38	360	HOURLY TOTAL	0	1	0	34	10	16	0	61	0	0	0	101	18	0	0	119	0	0	0	64	19
7	2	0	87	738	PERIOD TOTAL	0	5	0	84	16	29	5	139	0	0	0	167	40	0	0	207	0	0	0	154	42
1	1	0	17	108	16:00 - 16:15	1	0	1	25	4	2	0	33	4	0	0	50	6	1	0	61	0	0	0	33	11
1	0	0	15	106	16:15 - 16:30	0	0	1	26	5	1	0	33	0	0	1	56	5	1	0	63	0	0	0	30	8
1	0	0	18	114	16:30 - 16:45	1	0	1	19	8	2	0	31	0	0	2	42	1	1	0	46	0	0	0	26	6
1	0	0	16	115	16:45 - 17:00	0	0	0	24	6	1	0	31	0	0	0	52	5	1	0	58	0	0	0	27	9
4	1	0	66	443	HOURLY TOTAL	2	0	3	94	23	6	0	128	4	0	3	200	17	4	0	228	0	0	0	116	34
2	1	0	16	127	17:00 - 17:15	0	0	0	27	6	1	0	34	1	0	0	54	4	2	0	61	0	0	0	33	4
1	0	0	17	133	17:15 - 17:30	0	0	0	30	6	1	0	37	0	0	1	31	2	0	0	34	0	0	0	30	5
1	0	0	15	140	17:30 - 17:45	2	0	0	18	2	2	0	24	0	0	1	28	1	0	0	30	0	0	0	24	5
1	0	0	11	117	17:45 - 18:00	0	1	0	18	1	0	0	20	0	0	0	29	2	0	0	31	0	0	0	28	6
5	1	0	59	517	HOURLY TOTAL	2	1	0	93	15	4	0	115	1	0	2	142	9	2	0	156	0	0	0	115	20
1	0	0	8	90	18:00 - 18:15	0	0	1	20	1	1	0	23	0	0	0	33	2	1	0	36	0	0	0	24	3
1	0	0	5	69	18:15 - 18:30	0	0	0	16	0	0	0	16	0	0	0	27	1	0	0	28	0	0	0	16	1
2	0	0	13	159	HOURLY TOTAL	0	0	1	36	1	1	0	39	0	0	0	60	3	1	0	64	0	0	0	40	4
11	2	0	138	1119	PERIOD TOTAL	4	1	4	223	39	11	0	282	5	0	5	402	29	7	0	448	0	0	0	271	58

ıD			RIGHT TO BURTON ROAD								TOTAL MOVEMENT FROM ARM
HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	
2	0	23	0	0	0	7	0	5	0	12	82
1	0	30	0	0	0	6	0	2	0	8	76
2	0	33	0	0	0	9	0	1	0	10	81
1	0	33	1	0	0	11	0	2	0	14	90
6	0	119	1	0	0	33	0	10	0	44	329
3	1	24	0	0	0	6	1	2	0	9	78
5	0	29	0	0	0	5	0	1	0	6	80
5	0	23	0	0	0	7	0	1	0	8	77
2	0	23	0	0	0	10	1	2	0	13	80
15	1	99	0	0	0	28	2	6	0	36	315
21	1	218	1	0	0	61	2	16	0	80	644
1	1	46	2	0	0	10	1	1	0	14	154
1	0	39	0	0	0	11	0	1	0	12	147
1	0	33	1	0	1	7	2	2	0	13	123
1	0	37	0	0	0	10	0	0	0	10	136
4	1	155	3	0	1	38	3	4	0	49	560
1	1	39	2	0	0	10	0	1	0	13	147
1	0	36	0	0	0	8	1	0	0	9	116
2	0	31	1	0	0	7	1	0	0	9	94
1	0	35	0	0	0	6	0	0	0	6	92
5	1	141	3	0	0	31	2	1	0	37	449
1	0	28	1	0	0	6	1	0	0	8	95
0	0	17	0	0	0	5	1	0	0	6	67
1	0	45	1	0	0	11	2	0	0	14	162
10	2	341	7	0	1	80	7	5	0	100	1171

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: BURTON ROAD / WEST GREEN WAY / CUDWORTH PARKWAY / BARNSLEY ROAD / PONTEFRACT ROAD

ARM: CUDWORTH PARKWAY

TIME / CLASS	LEFT TO BARNSLEY ROAD								STRAIGHT TO PONTEFRACT ROAD								RIGHT TO BURTON ROAD								RIGH WEST GR			
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI
7:30 - 7:45	0	0	0	4	0	0	0	4	0	0	0	34	5	1	1	41	1	0	0	24	4	0	0	29	0	0	0	12
7:45 - 8:00	1	0	0	5	0	0	0	6	0	0	0	48	5	1	1	55	0	0	0	38	2	0	0	40	0	0	0	15
8:00 - 8:15	0	0	0	6	0	0	0	6	0	0	0	51	5	3	1	60	0	0	0	41	2	0	0	43	0	0	0	17
8:15 - 8:30	0	0	0	6	0	0	0	6	0	0	0	46	6	2	1	55	0	0	0	46	3	0	0	49	1	0	0	13
HOURLY TOTAL	1	0	0	21	0	0	0	22	0	0	0	179	21	7	4	211	1	0	0	149	11	0	0	161	1	0	0	57
8:30 - 8:45	1	0	0	5	0	0	0	6	0	0	0	46	6	2	1	55	1	1	0	32	3	0	0	37	0	0	0	10
8:45 - 9:00	1	0	0	4	0	0	0	5	0	0	0	43	4	3	0	50	0	0	0	29	2	0	0	31	0	0	0	6
9:00 - 9:15	1	0	0	0	0	0	0	1	0	0	0	48	7	3	1	59	1	0	0	29	4	0	0	34	0	0	0	8
9:15 - 9:30	0	0	0	0	0	0	0	0	0	0	0	50	3	1	0	54	0	0	0	24	1	0	0	25	0	0	0	7
HOURLY TOTAL	3	0	0	9	0	0	0	12	0	0	0	187	20	9	2	218	2	1	0	114	10	0	0	127	0	0	0	31
PERIOD TOTAL	4	0	0	30	0	0	0	34	0	0	0	366	41	16	6	429	3	1	0	263	21	0	0	288	1	0	0	88
16:00 - 16:15	1	0	0	6	0	0	0	7	0	0	0	29	2	3	1	35	0	0	0	22	1	1	0	24	0	0	0	7
16:15 - 16:30	1	0	0	5	1	0	0	7	0	0	0	30	3	3	0	36	0	0	0	34	2	1	0	37	0	0	0	10
16:30 - 16:45	1	0	0	5	0	0	0	6	0	0	0	33	5	3	1	42	0	0	0	34	4	1	0	39	0	0	0	11
16:45 - 17:00	0	0	0	4	0	0	0	4	0	0	0	36	2	2	1	41	0	0	0	36	3	1	0	40	0	0	0	10
HOURLY TOTAL	3	0	0	20	1	0	0	24	0	0	0	128	12	11	3	154	0	0	0	126	10	4	0	140	0	0	0	38
17:00 - 17:15	0	0	0	7	1	0	0	8	0	0	0	35	4	2	1	42	0	0	0	38	5	2	0	45	0	0	0	11
17:15 - 17:30	0	0	0	3	0	0	0	3	0	0	0	32	2	1	1	36	0	0	0	32	4	0	0	36	0	0	0	9
17:30 - 17:45	3	0	0	2	0	0	0	5	0	0	0	28	4	1	1	34	0	0	0	20	4	0	0	24	0	0	0	6
17:45 - 18:00	0	0	0	2	0	0	0	2	0	0	0	24	1	1	0	26	0	0	0	20	3	0	0	23	0	0	0	6
HOURLY TOTAL	3	0	0	14	1	0	0	18	0	0	0	119	11	5	3	138	0	0	0	110	16	2	0	128	0	0	0	32
18:00 - 18:15	0	0	1	4	1	0	0	6	0	0	0	23	2	0	1	26	0	0	0	16	2	0	0	18	0	0	0	6
18:15 - 18:30	0	0	0	1	0	0	0	1	0	0	0	16	1	0	0	17	0	0	0	10	0	0	0	10	0	0	0	3
HOURLY TOTAL	0	0	1	5	1	0	0	7	0	0	0	39	3	0	1	43	0	0	0	26	2	0	0	28	0	0	0	9
PERIOD TOTAL	6	0	1	39	3	0	0	49	0	0	0	286	26	16	7	335	0	0	0	262	28	6	0	296	0	0	0	79

IT TO EEN WAY				TOTAL MOVEMENT FROM ARM
LGV	HGV	BUS COACH	TOTAL	
2	2	0	16	90
1	5	0	21	122
4	7	0	28	137
2	3	0	19	129
9	17	0	84	478
1	3	0	14	112
2	4	0	12	98
3	4	0	15	109
1	2	0	10	89
7	13	0	51	408
16	30	0	135	886
9	5	0	21	87
5	2	0	17	97
3	2	0	16	103
6	2	0	18	103
23	11	0	72	390
4	2	0	17	112
2	1	0	12	87
1	2	0	9	72
3	1	0	10	61
10	6	0	48	332
2	1	0	9	59
0	0	0	3	31
2	1	0	12	90
35	18	0	132	812

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: BURTON ROAD / WEST GREEN WAY / CUDWORTH PARKWAY / BARNSLEY ROAD / PONTEFRACT ROAD

ARM: BARNSLEY ROAD

TIME / CLASS	LEFT TO PONTEFRACT ROAD								STRAIGHT TO BURTON ROAD								RIGHT TO WEST GREEN WAY								RIGH CUDWORTH			
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR TAXI
7:30 - 7:45	0	0	0	48	9	1	1	59	0	0	0	29	4	2	0	35	0	0	0	14	5	1	0	20	0	0	0	4
7:45 - 8:00	0	0	0	40	9	2	1	52	0	0	0	33	4	1	0	38	0	0	0	16	4	1	0	21	0	0	0	2
8:00 - 8:15	0	0	0	43	8	2	1	54	0	0	0	33	6	0	0	39	0	0	0	21	5	0	0	26	0	0	0	4
8:15 - 8:30	0	0	0	50	7	3	1	61	0	0	0	42	5	1	0	48	0	0	0	20	5	0	0	25	0	0	0	3
HOURLY TOTAL	0	0	0	181	33	8	4	226	0	0	0	137	19	4	0	160	0	0	0	71	19	2	0	92	0	0	0	13
8:30 - 8:45	0	0	0	52	7	3	3	65	0	0	0	41	2	1	0	44	0	0	1	19	1	2	0	23	0	0	0	2
8:45 - 9:00	0	0	0	56	6	1	2	65	0	0	0	37	2	0	0	39	0	0	0	18	1	0	0	19	0	0	0	3
9:00 - 9:15	0	0	0	51	7	1	4	63	0	0	0	35	2	0	0	37	0	0	0	17	2	0	0	19	0	0	0	3
9:15 - 9:30	0	0	0	49	6	1	2	58	0	0	0	30	1	0	0	31	0	0	0	18	2	0	0	20	0	0	0	1
HOURLY TOTAL	0	0	0	208	26	6	11	251	0	0	0	143	7	1	0	151	0	0	1	72	6	2	0	81	0	0	0	9
PERIOD TOTAL	0	0	0	389	59	14	15	477	0	0	0	280	26	5	0	311	0	0	1	143	25	4	0	173	0	0	0	22
16:00 - 16:15	0	0	0	42	8	0	2	52	0	0	0	31	8	0	0	39	0	0	0	10	6	1	0	17	1	0	0	3
16:15 - 16:30	0	0	0	44	6	0	1	51	0	0	0	35	7	0	0	42	0	0	0	11	0	0	0	11	0	0	0	2
16:30 - 16:45	0	0	0	44	7	1	3	55	0	0	1	37	5	1	0	44	0	0	0	14	2	0	0	16	1	0	0	6
16:45 - 17:00	0	0	0	49	6	0	1	56	0	0	0	36	6	0	0	42	0	0	0	10	0	0	0	10	0	0	0	4
HOURLY TOTAL	0	0	0	179	27	1	7	214	0	0	1	139	26	1	0	167	0	0	0	45	8	1	0	54	2	0	0	15
17:00 - 17:15	0	0	0	53	4	0	4	61	0	0	0	37	3	0	0	40	0	0	0	15	6	0	0	21	0	0	0	5
17:15 - 17:30	0	0	0	58	5	0	1	64	0	0	0	40	2	0	0	42	0	0	0	16	0	0	0	16	0	0	0	5
17:30 - 17:45	0	0	1	62	6	1	3	73	0	0	0	44	4	0	0	48	0	0	0	18	3	1	0	22	2	0	0	5
17:45 - 18:00	0	0	0	58	5	0	1	64	0	0	0	43	2	0	0	45	0	0	0	16	1	0	0	17	0	0	0	2
HOURLY TOTAL	0	0	1	231	20	1	9	262	0	0	0	164	11	0	0	175	0	0	0	65	10	1	0	76	2	0	0	17
18:00 - 18:15	0	0	1	48	4	0	2	55	0	0	0	39	2	0	0	41	0	0	0	11	3	0	0	14	0	0	0	4
18:15 - 18:30	0	0	0	49	1	0	1	51	0	0	0	30	1	0	0	31	0	0	0	10	0	0	0	10	0	0	0	1
HOURLY TOTAL	0	0	1	97	5	0	3	106	0	0	0	69	3	0	0	72	0	0	0	21	3	0	0	24	0	0	0	5
PERIOD TOTAL	0	0	2	507	52	2	19	582	0	0	1	372	40	1	0	414	0	0	0	131	21	2	0	154	4	0	0	37

IT TO H PARKWAY				TOTAL MOVEMENT FROM ARM
LGV	HGV	BUS COACH	TOTAL	
0	0	0	4	118
0	0	0	2	113
0	0	0	4	123
0	0	0	3	137
0	0	0	13	491
0	0	0	2	134
0	0	0	3	126
0	0	0	3	122
0	0	0	1	110
0	0	0	9	492
0	0	0	22	983
0	0	0	4	112
1	0	0	3	107
1	0	0	8	123
0	0	0	4	112
2	0	0	19	454
0	0	1	6	128
0	0	0	5	127
1	0	0	8	151
0	0	0	2	128
1	0	1	21	534
0	1	0	5	115
0	0	0	1	93
0	1	0	6	208
3	1	1	46	1196

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTEFRACT ROAD / GRANGE LANE / ROTHERHAM ROAD

ARM: PONTEFARACT ROAD NORTH

TIME / CLASS	LEFT TO GRANGE ROAD								STRAIGHT TO PONTEFRACT ROAD SOUTH								RIGHT TO ROTHERHAM ROAD								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	0	0	87	21	1	0	109	0	1	0	87	10	1	2	101	0	0	0	4	2	1	0	7	217
7:45 - 8:00	1	1	0	80	19	3	1	105	0	0	2	74	9	0	2	87	0	0	0	7	4	0	1	12	204
8:00 - 8:15	2	0	0	108	23	5	1	139	1	0	2	88	9	1	2	103	1	0	0	6	0	0	0	7	249
8:15 - 8:30	4	0	1	77	16	2	1	101	3	0	0	116	10	0	2	131	0	0	0	8	1	0	0	9	241
HOURLY TOTAL	7	1	1	352	79	11	3	454	4	1	4	365	38	2	8	422	1	0	0	25	7	1	1	35	911
8:30 - 8:45	0	0	1	66	13	7	0	87	0	0	0	120	4	4	6	134	0	0	0	4	1	0	0	5	226
8:45 - 9:00	2	0	0	78	10	6	0	96	1	0	2	105	3	2	4	117	1	0	0	9	0	2	0	12	225
9:00 - 9:15	0	0	1	74	17	9	0	101	0	0	1	104	8	2	6	121	0	0	0	7	2	1	1	11	233
9:15 - 9:30	0	0	0	76	14	5	0	95	0	0	1	63	4	0	4	72	0	0	0	5	0	0	0	5	172
HOURLY TOTAL	2	0	2	294	54	27	0	379	1	0	4	392	19	8	20	444	1	0	0	25	3	3	1	33	856
PERIOD TOTAL	9	1	3	646	133	38	3	833	5	1	8	757	57	10	28	866	2	0	0	50	10	4	2	68	1767
16:00 - 16:15	0	0	2	101	21	8	0	132	3	0	0	53	9	1	4	70	0	0	0	9	2	2	1	14	216
16:15 - 16:30	0	0	1	116	20	2	0	139	4	0	1	62	5	5	2	79	0	0	0	4	2	0	0	6	224
16:30 - 16:45	0	0	0	90	14	2	0	106	0	0	0	55	5	1	4	65	0	0	1	10	1	1	0	13	184
16:45 - 17:00	1	0	1	116	7	3	0	128	4	0	0	72	9	2	2	89	0	0	1	16	3	0	0	20	237
HOURLY TOTAL	1	0	4	423	62	15	0	505	11	0	1	242	28	9	12	303	0	0	2	39	8	3	1	53	861
17:00 - 17:15	0	0	5	119	12	1	0	137	1	0	0	63	2	0	5	71	1	0	0	13	0	0	1	15	223
17:15 - 17:30	4	0	0	100	21	3	0	128	0	0	1	70	10	2	3	86	0	0	0	16	2	0	0	18	232
17:30 - 17:45	3	1	1	113	13	5	0	136	1	0	1	56	2	0	3	63	0	0	0	6	0	0	0	6	205
17:45 - 18:00	1	0	0	106	15	3	0	125	0	0	0	53	5	0	3	61	0	0	0	7	0	0	0	7	193
HOURLY TOTAL	8	1	6	438	61	12	0	526	2	0	2	242	19	2	14	281	1	0	0	42	2	0	1	46	853
18:00 - 18:15	0	0	0	98	12	2	0	112	1	0	1	52	3	1	2	60	1	0	0	5	2	0	0	8	180
18:15 - 18:30	2	0	0	86	9	2	0	99	0	0	0	49	1	1	2	53	0	0	0	4	1	0	0	5	157
HOURLY TOTAL	2	0	0	184	21	4	0	211	1	0	1	101	4	2	4	113	1	0	0	9	3	0	0	13	337
PERIOD TOTAL	11	1	10	1045	144	31	0	1242	14	0	4	585	51	13	30	697	2	0	2	90	13	3	2	112	2051

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTEFRACT ROAD / GRANGE LANE / ROTHERHAM ROAD

ARM: GRANGE ROAD

TIME / CLASS	LEFT TO PONTEFRACT ROAD SOUTH								STRAIGHT TO ROTHERHAM ROAD								RIGHT TO PONTEFARACT ROAD NORTH								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	0	0	19	1	0	0	20	0	0	0	65	20	2	0	87	1	0	0	78	14	2	0	95	202
7:45 - 8:00	1	0	0	24	3	2	1	31	0	0	1	70	21	4	0	96	3	0	1	83	20	5	0	112	239
8:00 - 8:15	3	0	0	43	8	4	0	58	1	0	1	67	18	3	0	90	1	1	0	96	24	3	0	125	273
8:15 - 8:30	0	0	0	55	5	6	0	66	1	1	0	65	8	5	0	80	4	0	0	66	14	8	0	92	238
HOURLY TOTAL	4	0	0	141	17	12	1	175	2	1	2	267	67	14	0	353	9	1	1	323	72	18	0	424	952
8:30 - 8:45	2	0	0	44	4	3	0	53	0	1	1	69	17	2	0	90	2	1	0	73	17	4	0	97	240
8:45 - 9:00	0	1	0	48	2	4	0	55	1	0	2	66	9	4	0	82	0	0	0	85	11	3	0	99	236
9:00 - 9:15	3	0	0	31	2	2	0	38	2	1	0	53	10	3	0	69	1	0	1	64	8	2	1	77	184
9:15 - 9:30	1	0	0	23	1	0	0	25	1	0	1	50	7	5	0	64	2	0	0	57	9	4	0	72	161
HOURLY TOTAL	6	1	0	146	9	9	0	171	4	2	4	238	43	14	0	305	5	1	1	279	45	13	1	345	821
PERIOD TOTAL	10	1	0	287	26	21	1	346	6	3	6	505	110	28	0	658	14	2	2	602	117	31	1	769	1773
16:00 - 16:15	0	0	0	16	3	2	0	21	4	0	2	89	19	2	2	118	2	0	1	101	16	6	1	127	266
16:15 - 16:30	0	0	0	18	3	1	0	22	0	0	2	94	17	2	3	118	1	0	1	104	25	2	0	133	273
16:30 - 16:45	0	0	0	22	2	3	0	27	0	0	2	97	19	5	2	125	1	0	2	105	20	7	0	135	287
16:45 - 17:00	0	0	0	18	2	0	0	20	1	0	3	99	11	1	0	115	1	0	0	117	16	3	2	139	274
HOURLY TOTAL	0	0	0	74	10	6	0	90	5	0	9	379	66	10	7	476	5	0	4	427	77	18	3	534	1100
17:00 - 17:15	2	0	0	23	2	0	0	27	1	0	1	109	15	3	1	130	2	0	1	125	19	5	0	152	309
17:15 - 17:30	1	0	1	13	1	1	0	17	0	0	1	107	18	4	0	130	0	1	0	120	17	0	0	138	285
17:30 - 17:45	0	0	0	12	0	0	0	12	0	0	1	104	15	2	0	122	0	1	2	101	12	2	1	119	253
17:45 - 18:00	0	0	0	12	0	0	0	12	0	0	0	100	9	0	0	109	0	0	0	110	11	0	0	121	242
HOURLY TOTAL	3	0	1	60	3	1	0	68	1	0	3	420	57	9	1	491	2	2	3	456	59	7	1	530	1089
18:00 - 18:15	1	0	0	13	0	0	0	14	1	0	0	89	10	2	0	102	0	0	1	98	13	1	0	113	229
18:15 - 18:30	0	0	0	11	0	0	0	11	0	0	0	92	11	0	1	104	0	0	0	96	9	1	0	106	221
HOURLY TOTAL	1	0	0	24	0	0	0	25	1	0	0	181	21	2	1	206	0	0	1	194	22	2	0	219	450
PERIOD TOTAL	4	0	1	158	13	7	0	183	7	0	12	980	144	21	9	1173	7	2	8	1077	158	27	4	1283	2639

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

LOCATION: PONTEFRACT ROAD / GRANGE LANE / ROTHERHAM ROAD

ARM: PONTEFRACT ROAD SOUTH

TIME / CLASS	LEFT TO ROTHERHAM ROAD								STRAIGHT TO PONTEFARACT ROAD NORTH								RIGHT TO GRANGE ROAD								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	0	0	0	5	0	0	0	5	0	0	0	58	3	0	3	64	0	0	0	17	0	2	0	19	88
7:45 - 8:00	0	0	0	6	0	1	0	7	1	0	0	63	3	0	5	72	3	0	0	18	0	4	1	26	105
8:00 - 8:15	0	0	0	6	0	2	0	8	2	0	0	55	3	0	4	64	0	0	0	13	0	4	0	17	89
8:15 - 8:30	0	0	0	3	0	0	0	3	0	0	0	48	4	0	4	56	0	0	0	16	0	1	0	17	76
HOURLY TOTAL	0	0	0	20	0	3	0	23	3	0	0	224	13	0	16	256	3	0	0	64	0	11	1	79	358
8:30 - 8:45	0	0	0	8	0	0	0	8	2	0	0	46	2	0	2	52	0	0	0	17	0	7	0	24	84
8:45 - 9:00	0	0	0	2	0	0	0	2	0	0	0	38	1	0	4	43	0	0	1	13	0	1	0	15	60
9:00 - 9:15	0	0	0	4	0	1	0	5	0	0	0	31	2	0	4	37	0	0	0	10	0	3	0	13	55
9:15 - 9:30	0	0	0	1	0	2	0	3	0	0	0	42	3	0	3	48	0	0	0	17	0	2	1	20	71
HOURLY TOTAL	0	0	0	15	0	3	0	18	2	0	0	157	8	0	13	180	0	0	1	57	0	13	1	72	270
PERIOD TOTAL	0	0	0	35	0	6	0	41	5	0	0	381	21	0	29	436	3	0	1	121	0	24	2	151	628
16:00 - 16:15	0	0	0	12	0	0	0	12	4	0	2	106	2	0	5	119	1	0	0	23	0	4	0	28	159
16:15 - 16:30	0	0	0	11	0	0	0	11	5	0	2	98	2	0	3	110	0	0	1	27	0	2	0	30	151
16:30 - 16:45	0	0	1	14	0	0	0	15	0	0	2	89	2	0	3	96	0	0	0	42	0	0	0	42	153
16:45 - 17:00	0	0	0	13	0	0	0	13	3	1	0	92	1	0	3	100	0	0	0	26	0	1	1	28	141
HOURLY TOTAL	0	0	1	50	0	0	0	51	12	1	6	385	7	0	14	425	1	0	1	118	0	7	1	128	604
17:00 - 17:15	0	0	1	11	0	0	0	12	0	1	0	82	0	0	4	87	0	0	0	37	0	0	0	37	136
17:15 - 17:30	0	0	0	4	0	0	0	4	3	0	1	107	1	0	1	113	0	0	0	33	0	0	0	33	150
17:30 - 17:45	1	0	0	12	0	0	0	13	0	2	0	63	1	0	4	70	0	0	0	29	0	1	0	30	113
17:45 - 18:00	0	0	0	9	0	0	0	9	0	0	0	69	0	0	3	72	0	0	0	31	0	0	0	31	112
HOURLY TOTAL	1	0	1	36	0	0	0	38	3	3	1	321	2	0	12	342	0	0	0	130	0	1	0	131	511
18:00 - 18:15	0	0	0	11	0	0	0	11	0	1	0	60	1	0	3	65	0	0	0	27	0	1	0	28	104
18:15 - 18:30	0	0	0	7	0	0	0	7	0	0	0	54	0	0	1	55	0	0	0	21	0	0	0	21	83
HOURLY TOTAL	0	0	0	18	0	0	0	18	0	1	0	114	1	0	4	120	0	0	0	48	0	1	0	49	187
PERIOD TOTAL	1	0	2	104	0	0	0	107	15	5	7	820	10	0	30	887	1	0	1	296	0	9	1	308	1302

Manual Classified Turning Counts, Barnsley

DATE: WEDNESDAY 10th SEPTEMBER 2014

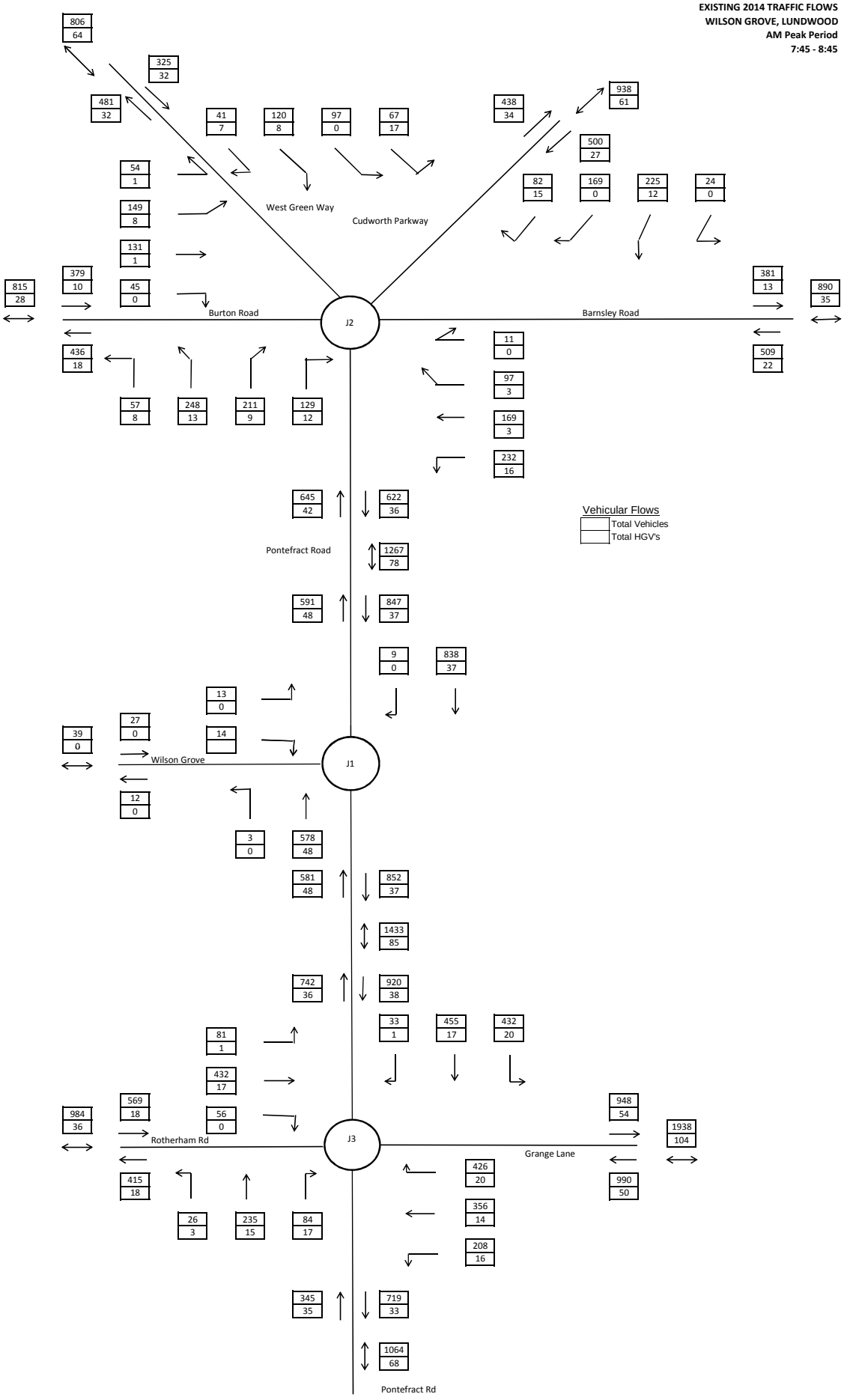
LOCATION: PONTEFRACT ROAD / GRANGE LANE / ROTHERHAM ROAD

ARM: ROTHERHAM ROAD

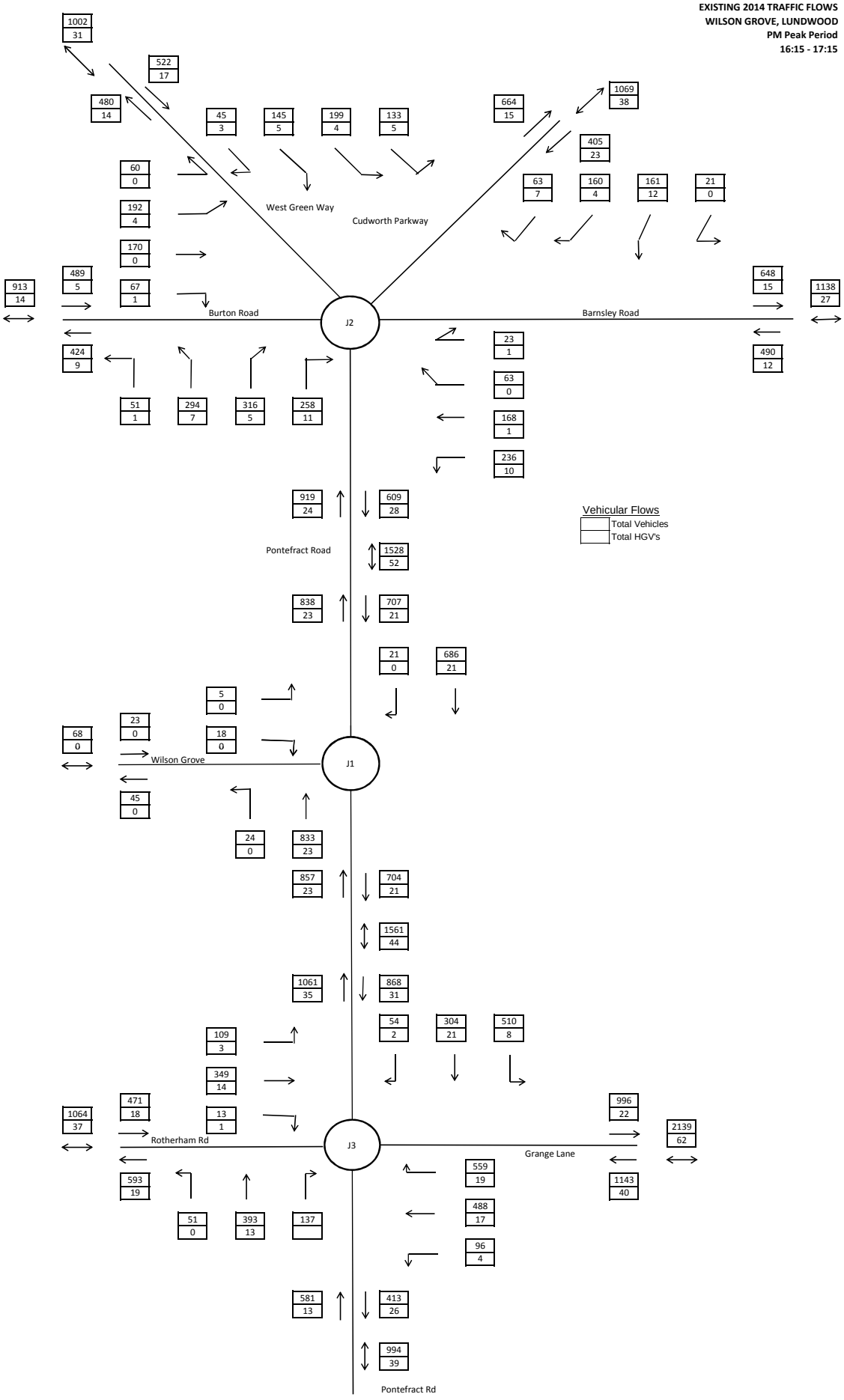
TIME / CLASS	LEFT TO PONTEFARACT ROAD NORTH								STRAIGHT TO GRANGE ROAD								RIGHT TO PONTEFRACT ROAD SOUTH								TOTAL MOVEMENT FROM ARM
	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	PEDESTRIAN	PEDAL CYCLE	MOTOR CYCLE	CAR	LGV	HGV	BUS COACH	TOTAL	
7:30 - 7:45	1	0	0	8	9	0	1	19	1	0	0	77	25	2	0	105	0	0	0	6	2	0	0	8	132
7:45 - 8:00	0	0	0	12	10	0	1	23	1	0	0	89	39	2	0	131	0	0	0	7	1	0	0	8	162
8:00 - 8:15	1	0	0	12	5	0	0	18	0	0	0	76	25	5	2	108	0	0	0	8	1	0	0	9	135
8:15 - 8:30	1	0	0	14	1	0	0	16	0	0	1	73	19	4	1	98	0	0	0	19	2	0	0	21	135
HOURLY TOTAL	3	0	0	46	25	0	2	76	2	0	1	315	108	13	3	442	0	0	0	40	6	0	0	46	564
8:30 - 8:45	2	0	0	20	2	0	0	24	0	0	0	79	13	2	1	95	0	0	0	16	2	0	0	18	137
8:45 - 9:00	3	0	0	25	1	3	0	32	0	0	2	86	17	5	0	110	0	0	1	16	2	0	0	19	161
9:00 - 9:15	0	0	0	17	2	0	0	19	0	0	0	70	12	4	0	86	0	0	0	18	4	2	0	24	129
9:15 - 9:30	1	0	0	15	1	1	0	18	0	0	0	73	4	8	0	85	0	0	0	10	3	0	0	13	116
HOURLY TOTAL	6	0	0	77	6	4	0	93	0	0	2	308	46	19	1	376	0	0	1	60	11	2	0	74	543
PERIOD TOTAL	9	0	0	123	31	4	2	169	2	0	3	623	154	32	4	818	0	0	1	100	17	2	0	120	1107
16:00 - 16:15	1	0	2	22	4	0	0	29	1	1	2	67	17	1	0	89	0	0	0	6	2	0	0	8	126
16:15 - 16:30	2	0	0	23	3	0	1	29	1	0	1	66	17	4	0	89	1	0	0	2	1	0	0	4	122
16:30 - 16:45	0	0	0	21	2	0	0	23	0	0	0	69	10	6	0	85	0	0	0	3	0	1	0	4	112
16:45 - 17:00	2	0	0	20	3	0	0	25	1	0	2	79	11	1	0	94	0	0	0	3	0	0	0	3	122
HOURLY TOTAL	5	0	2	86	12	0	1	106	3	1	5	281	55	12	0	357	1	0	0	14	3	1	0	19	482
17:00 - 17:15	1	0	0	29	0	1	1	32	0	0	1	67	10	3	0	81	0	0	0	2	0	0	0	2	115
17:15 - 17:30	4	0	0	13	3	0	1	21	0	1	2	64	9	1	0	77	0	0	0	2	0	0	0	2	100
17:30 - 17:45	2	0	0	12	1	0	0	15	1	0	1	79	15	1	0	97	0	0	0	5	0	0	0	5	117
17:45 - 18:00	0	0	0	11	0	0	1	12	0	0	2	67	11	1	0	81	0	0	1	3	0	0	0	4	97
HOURLY TOTAL	7	0	0	65	4	1	3	80	1	1	6	277	45	6	0	336	0	0	1	12	0	0	0	13	429
18:00 - 18:15	2	0	0	8	1	0	0	11	0	0	1	63	13	0	0	77	0	0	0	3	1	0	0	4	92
18:15 - 18:30	0	0	0	7	0	0	0	7	0	0	1	65	10	0	0	76	0	0	0	2	0	0	0	2	85
HOURLY TOTAL	2	0	0	15	1	0	0	18	0	0	2	128	23	0	0	153	0	0	0	5	1	0	0	6	177
PERIOD TOTAL	14	0	2	166	17	1	4	204	4	2	13	686	123	18	0	846	1	0	1	31	4	1	0	38	1088

Appendix 6

EXISTING 2014 TRAFFIC FLOWS
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45



EXISTING 2014 TRAFFIC FLOWS
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15



Appendix 7

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.2.316 [14 Feb 2013]
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Filename: Wilson Grove. A628.arc8
Path: T:\70007115 - Lundwood Barnsley\D Design and Analysis\Development\PICADY
Report generation date: 23/09/2014 14:29:44

» (Default Analysis Set) - 2014, AM
» (Default Analysis Set) - 2014, PM
» (Default Analysis Set) - 2019, AM
» (Default Analysis Set) - 2019, PM
» (Default Analysis Set) - Average Predicted 2019, AM
» (Default Analysis Set) - Average Predicted 2019, PM
» (Default Analysis Set) - 85%ile Predicted 2019, AM
» (Default Analysis Set) - 85%ile Predicted 2019, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - 2014							
Stream B-AC	0.09	10.39	0.08	B	0.10	14.28	0.09	B
Stream C-AB	0.05	3.91	0.04	A	0.17	4.46	0.09	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - 2019							
Stream B-AC	0.10	10.99	0.09	B	0.12	16.01	0.11	C
Stream C-AB	0.06	3.83	0.04	A	0.24	4.32	0.11	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - 85%ile Predicted 2019							
Stream B-AC	0.33	13.61	0.25	B	0.32	19.52	0.24	C
Stream C-AB	0.24	3.84	0.11	A	0.79	4.56	0.21	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	A1 - Average Predicted 2019							
Stream B-AC	0.27	12.93	0.21	B	0.25	18.31	0.20	C
Stream C-AB	0.20	3.82	0.10	A	0.60	4.50	0.18	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - 2014, AM " model duration: 07:45 - 09:15
"D2 - 2014, PM" model duration: 16:15 - 17:45
"D3 - 2019, AM" model duration: 07:45 - 09:15
"D4 - 2019, PM" model duration: 16:15 - 17:45
"D5 - Average Predicted 2019, AM" model duration: 07:45 - 09:15
"D6 - Average Predicted 2019, PM" model duration: 16:15 - 17:45
"D7 - 85%ile Predicted 2019, AM" model duration: 07:45 - 09:15
"D8 - 85%ile Predicted 2019, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.2.316 at 23/09/2014 14:29:41

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	09/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - 2014, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, AM	2014	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.06	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	581.00	100.000
B	ONE HOUR	✓	27.00	100.000
C	ONE HOUR	✓	847.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	3.000	578.000
	B	14.000	0.000	13.000
	C	838.000	9.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.52	0.00	0.48
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.08	10.39	0.09	B
C-AB	0.04	3.91	0.05	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.14	0.00	453.44	0.045	0.05	8.305	A
C-AB	16.20	16.12	0.00	937.66	0.017	0.02	3.906	A
C-A	621.46	621.46	0.00	-	-	-	-	-
A-B	2.26	2.26	0.00	-	-	-	-	-
A-C	435.15	435.15	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.22	0.00	421.59	0.058	0.06	9.058	A
C-AB	22.27	22.24	0.00	992.34	0.022	0.03	3.710	A
C-A	739.17	739.17	0.00	-	-	-	-	-
A-B	2.70	2.70	0.00	-	-	-	-	-
A-C	519.61	519.61	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.63	0.00	376.08	0.079	0.08	10.389	B
C-AB	40.14	40.05	0.00	1114.06	0.036	0.05	3.351	A
C-A	892.43	892.43	0.00	-	-	-	-	-
A-B	3.30	3.30	0.00	-	-	-	-	-
A-C	636.39	636.39	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	29.73	29.73	0.00	376.07	0.079	0.09	10.393	B
C-AB	40.16	40.16	0.00	1114.10	0.036	0.05	3.351	A
C-A	892.40	892.40	0.00	-	-	-	-	-
A-B	3.30	3.30	0.00	-	-	-	-	-
A-C	636.39	636.39	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	24.27	24.37	0.00	421.58	0.058	0.06	9.066	A
C-AB	22.29	22.38	0.00	992.40	0.022	0.03	3.710	A
C-A	739.14	739.14	0.00	-	-	-	-	-
A-B	2.70	2.70	0.00	-	-	-	-	-
A-C	519.61	519.61	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	20.33	20.38	0.00	453.42	0.045	0.05	8.315	A
C-AB	16.26	16.29	0.00	937.70	0.017	0.02	3.908	A
C-A	621.41	621.41	0.00	-	-	-	-	-
A-B	2.26	2.26	0.00	-	-	-	-	-
A-C	435.15	435.15	0.00	-	-	-	-	-

(Default Analysis Set) - 2014, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, PM	2014	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.08	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	857.00	100.000
B	ONE HOUR	✓	23.00	100.000
C	ONE HOUR	✓	707.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	24.000	833.000
	B	18.000	0.000	5.000
	C	686.000	21.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.78	0.00	0.22
	C	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	14.28	0.10	B
C-AB	0.09	4.46	0.17	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	17.32	17.12	0.00	372.39	0.047	0.05	10.128	B
C-AB	35.07	34.83	0.00	842.31	0.042	0.06	4.457	A
C-A	497.20	497.20	0.00	-	-	-	-	-
A-B	18.07	18.07	0.00	-	-	-	-	-
A-C	627.13	627.13	0.00	-	-	-	-	-

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	20.68	20.61	0.00	332.86	0.062	0.07	11.526	B
C-AB	54.22	54.07	0.00	909.61	0.060	0.10	4.208	A
C-A	581.36	581.36	0.00	-	-	-	-	-
A-B	21.58	21.58	0.00	-	-	-	-	-
A-C	748.85	748.85	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	25.32	25.19	0.00	277.43	0.091	0.10	14.264	B
C-AB	84.38	84.10	0.00	979.66	0.086	0.17	4.022	A
C-A	694.04	694.04	0.00	-	-	-	-	-
A-B	26.42	26.42	0.00	-	-	-	-	-
A-C	917.15	917.15	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	25.32	25.32	0.00	277.39	0.091	0.10	14.281	B
C-AB	84.51	84.51	0.00	979.81	0.086	0.17	4.024	A
C-A	693.91	693.91	0.00	-	-	-	-	-
A-B	26.42	26.42	0.00	-	-	-	-	-
A-C	917.15	917.15	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	20.68	20.81	0.00	332.80	0.062	0.07	11.545	B
C-AB	54.36	54.64	0.00	909.85	0.060	0.10	4.213	A
C-A	581.21	581.21	0.00	-	-	-	-	-
A-B	21.58	21.58	0.00	-	-	-	-	-
A-C	748.85	748.85	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	17.32	17.39	0.00	372.32	0.047	0.05	10.146	B
C-AB	35.24	35.39	0.00	842.47	0.042	0.06	4.461	A
C-A	497.03	497.03	0.00	-	-	-	-	-
A-B	18.07	18.07	0.00	-	-	-	-	-
A-C	627.13	627.13	0.00	-	-	-	-	-

(Default Analysis Set) - 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019, AM	2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.17	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	626.00	100.000
B	ONE HOUR	✓	30.00	100.000
C	ONE HOUR	✓	913.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	3.000	623.000
	B	15.000	0.000	15.000
	C	903.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.00	1.00
	B	0.50	0.00	0.50
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.09	10.99	0.10	B
C-AB	0.04	3.83	0.06	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	22.59	22.37	0.00	444.80	0.051	0.05	8.517	A
C-AB	19.04	18.95	0.00	959.93	0.020	0.02	3.825	A
C-A	668.31	668.31	0.00	-	-	-	-	-
A-B	2.26	2.26	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	26.97	26.90	0.00	410.26	0.066	0.07	9.390	A
C-AB	26.35	26.32	0.00	1017.18	0.026	0.03	3.632	A
C-A	794.42	794.42	0.00	-	-	-	-	-
A-B	2.70	2.70	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	33.03	32.91	0.00	360.55	0.092	0.10	10.984	B
C-AB	49.08	48.97	0.00	1148.52	0.043	0.06	3.273	A
C-A	956.15	956.15	0.00	-	-	-	-	-
A-B	3.30	3.30	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	33.03	33.03	0.00	360.54	0.092	0.10	10.991	B
C-AB	49.12	49.12	0.00	1148.57	0.043	0.06	3.276	A
C-A	956.11	956.11	0.00	-	-	-	-	-
A-B	3.30	3.30	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	26.97	27.09	0.00	410.24	0.066	0.07	9.398	A
C-AB	26.39	26.50	0.00	1017.24	0.026	0.03	3.636	A
C-A	794.38	794.38	0.00	-	-	-	-	-
A-B	2.70	2.70	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	22.59	22.65	0.00	444.78	0.051	0.05	8.530	A
C-AB	19.11	19.15	0.00	959.98	0.020	0.02	3.828	A
C-A	668.24	668.24	0.00	-	-	-	-	-
A-B	2.26	2.26	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

(Default Analysis Set) - 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019, PM	2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.02	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	926.00	100.000
B	ONE HOUR	✓	24.00	100.000
C	ONE HOUR	✓	764.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	26.000	900.000
	B	19.000	0.000	5.000
	C	741.000	23.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.79	0.00	0.21
	C	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.11	16.01	0.12	C
C-AB	0.11	4.32	0.24	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	17.86	0.00	354.61	0.051	0.05	10.683	B
C-AB	44.75	44.44	0.00	879.57	0.051	0.08	4.310	A
C-A	530.43	530.43	0.00	-	-	-	-	-
A-B	19.57	19.57	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	21.49	0.00	311.66	0.069	0.07	12.404	B
C-AB	64.70	64.53	0.00	934.71	0.069	0.12	4.139	A
C-A	622.12	622.12	0.00	-	-	-	-	-
A-B	23.37	23.37	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	26.26	0.00	251.32	0.105	0.12	15.983	C
C-AB	110.38	109.92	0.00	1028.32	0.107	0.23	3.921	A
C-A	730.80	730.80	0.00	-	-	-	-	-
A-B	28.63	28.63	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	26.42	26.42	0.00	251.26	0.105	0.12	16.011	C
C-AB	110.60	110.59	0.00	1028.60	0.108	0.24	3.926	A
C-A	730.58	730.58	0.00	-	-	-	-	-
A-B	28.63	28.63	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	21.58	21.74	0.00	311.57	0.069	0.08	12.429	B
C-AB	64.91	65.36	0.00	935.07	0.069	0.12	4.144	A
C-A	621.91	621.91	0.00	-	-	-	-	-
A-B	23.37	23.37	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	18.07	18.15	0.00	354.53	0.051	0.05	10.706	B
C-AB	45.00	45.18	0.00	879.79	0.051	0.08	4.316	A
C-A	530.18	530.18	0.00	-	-	-	-	-
A-B	19.57	19.57	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

(Default Analysis Set) - Average Predicted 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, AM	Average Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.94	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	630.00	100.000
B	ONE HOUR	✓	68.00	100.000
C	ONE HOUR	✓	924.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	7.000	623.000
	B	35.000	0.000	33.000
	C	903.000	21.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.51	0.00	0.49
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.21	12.93	0.27	B
C-AB	0.10	3.82	0.20	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	51.19	50.67	0.00	439.38	0.117	0.13	9.250	A
C-AB	45.49	45.22	0.00	988.31	0.046	0.07	3.817	A
C-A	650.15	650.15	0.00	-	-	-	-	-
A-B	5.27	5.27	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	61.13	60.95	0.00	404.10	0.151	0.18	10.485	B
C-AB	65.77	65.63	0.00	1057.97	0.062	0.10	3.627	A
C-A	764.89	764.89	0.00	-	-	-	-	-
A-B	6.29	6.29	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	74.87	74.52	0.00	353.34	0.212	0.26	12.894	B
C-AB	115.51	115.11	0.00	1176.86	0.098	0.20	3.391	A
C-A	901.83	901.83	0.00	-	-	-	-	-
A-B	7.71	7.71	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	74.87	74.86	0.00	353.29	0.212	0.27	12.929	B
C-AB	115.71	115.71	0.00	1177.07	0.098	0.20	3.396	A
C-A	901.63	901.63	0.00	-	-	-	-	-
A-B	7.71	7.71	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	61.13	61.47	0.00	404.03	0.151	0.18	10.519	B
C-AB	65.95	66.35	0.00	1058.26	0.062	0.10	3.633	A
C-A	764.71	764.71	0.00	-	-	-	-	-
A-B	6.29	6.29	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	51.19	51.38	0.00	439.32	0.117	0.13	9.285	A
C-AB	45.72	45.86	0.00	988.49	0.046	0.07	3.819	A
C-A	649.92	649.92	0.00	-	-	-	-	-
A-B	5.27	5.27	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

(Default Analysis Set) - Average Predicted 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, PM	Average Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	7.89	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	945.00	100.000
B	ONE HOUR	✓	45.00	100.000
C	ONE HOUR	✓	780.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	45.000	900.000
	B	35.000	0.000	10.000
	C	741.000	39.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.78	0.00	0.22
	C	0.95	0.05	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	18.31	0.25	C
C-AB	0.18	4.50	0.60	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	33.88	33.46	0.00	352.25	0.096	0.10	11.278	B
C-AB	76.16	75.49	0.00	877.61	0.087	0.17	4.487	A
C-A	511.06	511.06	0.00	-	-	-	-	-
A-B	33.88	33.88	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.45	40.28	0.00	308.23	0.131	0.15	13.427	B
C-AB	115.39	114.90	0.00	943.05	0.122	0.29	4.352	A
C-A	585.81	585.81	0.00	-	-	-	-	-
A-B	40.45	40.45	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	49.55	49.16	0.00	246.28	0.201	0.25	18.227	C
C-AB	188.97	187.77	0.00	1026.37	0.184	0.59	4.302	A
C-A	669.83	669.83	0.00	-	-	-	-	-
A-B	49.55	49.55	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	49.55	49.53	0.00	246.09	0.201	0.25	18.312	C
C-AB	189.68	189.65	0.00	1027.07	0.185	0.60	4.313	A
C-A	669.11	669.11	0.00	-	-	-	-	-
A-B	49.55	49.55	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.45	40.83	0.00	307.97	0.131	0.15	13.497	B
C-AB	116.11	117.29	0.00	944.07	0.123	0.30	4.368	A
C-A	585.09	585.09	0.00	-	-	-	-	-
A-B	40.45	40.45	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	33.88	34.06	0.00	352.04	0.096	0.11	11.327	B
C-AB	76.76	77.27	0.00	878.18	0.087	0.17	4.502	A
C-A	510.46	510.46	0.00	-	-	-	-	-
A-B	33.88	33.88	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

(Default Analysis Set) - 85%ile Predicted 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, AM	85%ile Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	8.39	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	631.00	100.000
B	ONE HOUR	✓	79.00	100.000
C	ONE HOUR	✓	926.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	8.000	623.000
	B	41.000	0.000	38.000
	C	903.000	23.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.52	0.00	0.48
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.25	13.61	0.33	B
C-AB	0.11	3.84	0.24	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (07:45-08:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	59.48	58.85	0.00	438.02	0.136	0.16	9.479	A
C-AB	49.83	49.52	0.00	988.21	0.050	0.08	3.835	A
C-A	647.31	647.31	0.00	-	-	-	-	-
A-B	6.02	6.02	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	71.02	70.80	0.00	402.59	0.176	0.21	10.842	B
C-AB	72.06	71.90	0.00	1057.89	0.068	0.12	3.653	A
C-A	760.39	760.39	0.00	-	-	-	-	-
A-B	7.19	7.19	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	86.98	86.54	0.00	351.62	0.247	0.32	13.557	B
C-AB	126.59	126.12	0.00	1176.78	0.108	0.23	3.427	A
C-A	892.96	892.96	0.00	-	-	-	-	-
A-B	8.81	8.81	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	86.98	86.97	0.00	351.55	0.247	0.33	13.606	B
C-AB	126.83	126.82	0.00	1177.03	0.108	0.24	3.430	A
C-A	892.72	892.72	0.00	-	-	-	-	-
A-B	8.81	8.81	0.00	-	-	-	-	-
A-C	685.94	685.94	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	71.02	71.45	0.00	402.51	0.176	0.22	10.890	B
C-AB	72.28	72.74	0.00	1058.22	0.068	0.12	3.658	A
C-A	760.18	760.18	0.00	-	-	-	-	-
A-B	7.19	7.19	0.00	-	-	-	-	-
A-C	560.06	560.06	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	59.48	59.71	0.00	437.95	0.136	0.16	9.523	A
C-AB	50.09	50.26	0.00	988.43	0.051	0.08	3.837	A
C-A	647.05	647.05	0.00	-	-	-	-	-
A-B	6.02	6.02	0.00	-	-	-	-	-
A-C	469.03	469.03	0.00	-	-	-	-	-

(Default Analysis Set) - 85%ile Predicted 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, PM	85%ile Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
(untitled)	T-Junction	Two-way	A,B,C	8.35	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm Type
A	A628 Pontefract Road (S)		Major
B	Wilson Grove		Minor
C	A628 Pontefract Road (N)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.06		0.00	✓	2.20	71.45	✓	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)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	3.36										29	76

Pedestrian Crossings

Arm	Crossing Type
A	None
B	None
C	None

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	543.395	0.081	0.206	0.130	0.294
1	B-C	696.183	0.088	0.222	-	-
1	C-B	615.341	0.196	0.196	-	-

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 Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	950.00	100.000
B	ONE HOUR	✓	54.00	100.000
C	ONE HOUR	✓	785.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	50.000	900.000
	B	42.000	0.000	12.000
	C	741.000	44.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.78	0.00	0.22
	C	0.94	0.06	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	0.000	0.000	0.000
	C	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.24	19.52	0.32	C
C-AB	0.21	4.56	0.79	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (16:15-16:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.65	40.14	0.00	350.88	0.116	0.13	11.567	B
C-AB	86.01	85.20	0.00	877.10	0.098	0.20	4.546	A
C-A	504.98	504.98	0.00	-	-	-	-	-
A-B	37.64	37.64	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

Main results: (16:30-16:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	48.54	48.32	0.00	306.54	0.158	0.18	13.928	B
C-AB	130.41	129.80	0.00	942.55	0.138	0.35	4.434	A
C-A	575.28	575.28	0.00	-	-	-	-	-
A-B	44.95	44.95	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (16:45-17:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	59.46	58.94	0.00	244.12	0.244	0.31	19.385	C
C-AB	220.70	219.03	0.00	1034.10	0.213	0.77	4.430	A
C-A	643.60	643.60	0.00	-	-	-	-	-
A-B	55.05	55.05	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	59.46	59.44	0.00	243.86	0.244	0.32	19.515	C
C-AB	221.78	221.72	0.00	1035.14	0.214	0.79	4.447	A
C-A	642.52	642.52	0.00	-	-	-	-	-
A-B	55.05	55.05	0.00	-	-	-	-	-
A-C	990.92	990.92	0.00	-	-	-	-	-

Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	48.54	49.05	0.00	306.19	0.159	0.19	14.029	B
C-AB	131.40	133.06	0.00	943.95	0.139	0.37	4.458	A
C-A	574.30	574.30	0.00	-	-	-	-	-
A-B	44.95	44.95	0.00	-	-	-	-	-
A-C	809.08	809.08	0.00	-	-	-	-	-

Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.65	40.89	0.00	350.63	0.116	0.13	11.630	B
C-AB	86.75	87.39	0.00	877.80	0.099	0.21	4.562	A
C-A	504.24	504.24	0.00	-	-	-	-	-
A-B	37.64	37.64	0.00	-	-	-	-	-
A-C	677.57	677.57	0.00	-	-	-	-	-

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013]
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Filename: Pontefract Road. Burton Road.arc8
Path: T:\70007115 - Lundwood Barnsley\D Design and Analysis\Development\ARCADY
Report generation date: 25/09/2014 18:25:37

» (Default Analysis Set) - 2014, AM
» (Default Analysis Set) - 2014, PM
» (Default Analysis Set) - 2019, AM
» (Default Analysis Set) - 2019, PM
» (Default Analysis Set) - Average Predicted 2019, AM
» (Default Analysis Set) - Average Predicted 2019, PM
» (Default Analysis Set) - 85%ile Predicted 2019, AM
» (Default Analysis Set) - 85%ile Predicted 2019, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - 2014							
Arm 1	0.85	5.59	0.46	A	0.84	6.88	0.46	A
Arm 2	1.81	11.84	0.65	B	1.51	10.24	0.61	B
Arm 3	2.02	10.41	0.67	B	10.25	38.99	0.93	E
Arm 4	0.94	8.19	0.49	A	3.12	21.77	0.77	C
Arm 5	0.52	5.27	0.34	A	2.47	15.95	0.72	C
	A1 - 2019							
Arm 1	1.03	6.32	0.51	A	1.07	8.09	0.52	A
Arm 2	2.60	15.91	0.73	C	2.08	13.10	0.68	B
Arm 3	2.84	13.72	0.75	B	33.66	105.26	1.03	F
Arm 4	1.21	9.81	0.55	A	5.55	36.72	0.87	E
Arm 5	0.62	5.82	0.38	A	4.14	25.29	0.82	D
	A1 - 85%ile Predicted 2019							
Arm 1	0.90	5.93	0.48	A	1.46	9.67	0.60	A
Arm 2	2.45	14.83	0.72	B	2.59	16.22	0.73	C
Arm 3	3.12	14.57	0.76	B	38.46	117.63	1.05	F
Arm 4	1.25	10.13	0.56	B	6.15	40.53	0.88	E
Arm 5	0.64	5.94	0.39	A	4.34	26.31	0.83	D
	A1 - Average Predicted 2019							
Arm 1	0.90	5.93	0.48	A	1.45	9.63	0.60	A
Arm 2	2.44	14.77	0.71	B	2.56	16.05	0.73	C
Arm 3	3.03	14.26	0.76	B	37.22	114.57	1.04	F
Arm 4	1.24	10.05	0.56	B	6.04	39.92	0.88	E
Arm 5	0.64	5.93	0.39	A	4.28	25.94	0.82	D

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

"D1 - 2014, AM " model duration: 07:45 - 09:15
"D2 - 2014, PM" model duration: 16:15 - 17:45
"D3 - 2019, AM" model duration: 07:45 - 09:15
"D4 - 2019, PM" model duration: 16:15 - 17:45
"D5 - Average Predicted 2019, AM" model duration: 07:45 - 09:15
"D6 - Average Predicted 2019, PM" model duration: 16:15 - 17:45
"D7 - 85%ile Predicted 2019, AM" model duration: 07:45 - 09:15
"D8 - 85%ile Predicted 2019, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.2.316 at 25/09/2014 18:25:33

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	22/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - 2014, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, AM	2014	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			8.63	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	500.00	100.000
2	ONE HOUR	✓	509.00	100.000
3	ONE HOUR	✓	645.00	100.000
4	ONE HOUR	✓	379.00	100.000
5	ONE HOUR	✓	325.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	24.000	225.000	169.000	82.000
	2	11.000	0.000	232.000	169.000	97.000
	3	211.000	129.000	0.000	57.000	248.000
	4	149.000	131.000	45.000	0.000	54.000
	5	67.000	97.000	120.000	41.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.02	0.00	0.46	0.33	0.19
	3	0.33	0.20	0.00	0.09	0.38
	4	0.39	0.35	0.12	0.00	0.14
	5	0.21	0.30	0.37	0.13	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.46	5.59	0.85	A
2	0.65	11.84	1.81	B
3	0.67	10.41	2.02	B
4	0.49	8.19	0.94	A
5	0.34	5.27	0.52	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	374.84	421.77	0.00	1320.93	0.285	0.40	3.798	A
2	383.20	380.76	511.24	0.00	1005.32	0.381	0.61	5.743	A
3	485.59	482.83	426.12	0.00	1181.40	0.411	0.69	5.137	A
4	285.33	283.79	582.42	0.00	1022.54	0.279	0.38	4.863	A
5	244.68	243.65	506.10	0.00	1191.50	0.205	0.26	3.795	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	448.89	505.25	0.00	1267.38	0.355	0.55	4.396	A
2	457.58	456.33	612.28	0.00	945.72	0.484	0.92	7.336	A
3	579.84	578.44	510.49	0.00	1128.38	0.514	1.04	6.528	A
4	340.71	340.04	697.76	0.00	952.72	0.358	0.55	5.870	A
5	292.17	291.81	606.37	0.00	1127.86	0.259	0.35	4.304	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	549.31	617.88	0.00	1195.13	0.461	0.84	5.564	A
2	560.42	557.00	749.24	0.00	864.93	0.648	1.78	11.562	B
3	710.16	706.40	623.94	0.00	1057.08	0.672	1.98	10.157	B
4	417.29	415.78	852.25	0.00	859.21	0.486	0.93	8.091	A
5	357.83	357.15	740.94	0.00	1042.44	0.343	0.52	5.247	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	550.49	619.81	0.00	1193.89	0.461	0.85	5.594	A
2	560.42	560.28	750.86	0.00	863.98	0.649	1.81	11.840	B
3	710.16	710.00	626.39	0.00	1055.54	0.673	2.02	10.406	B
4	417.29	417.24	856.42	0.00	856.69	0.487	0.94	8.191	A
5	357.83	357.82	744.16	0.00	1040.40	0.344	0.52	5.273	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	450.67	508.11	0.00	1265.54	0.355	0.55	4.423	A
2	457.58	461.01	614.74	0.00	944.27	0.485	0.95	7.502	A
3	579.84	583.61	514.06	0.00	1126.13	0.515	1.08	6.679	A
4	340.71	342.21	703.76	0.00	949.09	0.359	0.57	5.948	A
5	292.17	292.84	611.06	0.00	1124.89	0.260	0.35	4.329	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	377.04	424.77	0.00	1319.01	0.285	0.40	3.826	A
2	383.20	384.52	514.30	0.00	1003.52	0.382	0.62	5.827	A
3	485.59	487.07	429.45	0.00	1179.31	0.412	0.71	5.213	A
4	285.33	286.03	587.45	0.00	1019.49	0.280	0.39	4.914	A
5	244.68	245.05	510.34	0.00	1188.82	0.206	0.26	3.815	A

(Default Analysis Set) - 2014, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014, PM	2014	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			22.16	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	405.00	100.000
2	ONE HOUR	✓	490.00	100.000
3	ONE HOUR	✓	919.00	100.000
4	ONE HOUR	✓	489.00	100.000
5	ONE HOUR	✓	522.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	21.000	161.000	160.000	63.000
	2	23.000	0.000	236.000	168.000	63.000
	3	316.000	258.000	0.000	51.000	294.000
	4	192.000	170.000	67.000	0.000	60.000
	5	133.000	199.000	145.000	45.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.40	0.40	0.16
	2	0.05	0.00	0.48	0.34	0.13
	3	0.34	0.28	0.00	0.06	0.32
	4	0.39	0.35	0.14	0.00	0.12
	5	0.25	0.38	0.28	0.09	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.46	6.88	0.84	A
2	0.61	10.24	1.51	B
3	0.93	38.99	10.25	E
4	0.77	21.77	3.12	C
5	0.72	15.95	2.47	C

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	304.91	303.50	660.91	0.00	1167.52	0.261	0.35	4.159	A
2	368.90	366.67	479.99	0.00	1023.76	0.360	0.56	5.460	A
3	691.87	686.56	390.85	0.00	1203.57	0.575	1.33	6.894	A
4	368.14	365.48	760.02	0.00	915.04	0.402	0.67	6.520	A
5	392.99	390.53	766.67	0.00	1026.12	0.383	0.61	5.643	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	364.09	363.48	791.44	0.00	1083.79	0.336	0.50	4.993	A
2	440.50	439.43	574.86	0.00	967.79	0.455	0.82	6.799	A
3	826.16	821.81	468.25	0.00	1154.93	0.715	2.42	10.667	B
4	439.60	437.79	909.87	0.00	824.34	0.533	1.12	9.268	A
5	469.27	467.72	917.99	0.00	930.07	0.505	1.00	7.760	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	445.91	444.60	958.88	0.00	976.38	0.457	0.83	6.753	A
2	539.50	536.86	701.65	0.00	893.01	0.604	1.49	10.033	B
3	1011.84	986.41	572.19	0.00	1089.60	0.929	8.77	29.524	D
4	538.40	531.47	1095.06	0.00	712.25	0.756	2.85	19.218	C
5	574.73	569.47	1107.56	0.00	809.74	0.710	2.32	14.671	B

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	445.91	445.85	970.68	0.00	968.81	0.460	0.84	6.883	A
2	539.50	539.39	705.33	0.00	890.83	0.606	1.51	10.236	B
3	1011.84	1005.94	574.59	0.00	1088.09	0.930	10.25	38.985	E
4	538.40	537.33	1114.14	0.00	700.70	0.768	3.12	21.766	C
5	574.73	574.13	1125.02	0.00	798.66	0.720	2.47	15.950	C

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	364.09	365.39	811.02	0.00	1071.23	0.340	0.52	5.111	A
2	440.50	443.14	580.53	0.00	964.45	0.457	0.85	6.941	A
3	826.16	856.58	471.83	0.00	1152.68	0.717	2.64	13.302	B
4	439.60	447.13	943.66	0.00	803.89	0.547	1.24	10.294	B
5	469.27	474.81	948.08	0.00	910.97	0.515	1.08	8.354	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	304.91	305.55	669.33	0.00	1162.12	0.262	0.36	4.205	A
2	368.90	370.02	484.14	0.00	1021.31	0.361	0.57	5.536	A
3	691.87	696.91	394.08	0.00	1201.54	0.576	1.38	7.205	A
4	368.14	370.33	770.71	0.00	908.57	0.405	0.69	6.714	A
5	392.99	394.78	777.54	0.00	1019.21	0.386	0.63	5.783	A

(Default Analysis Set) - 2019, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019, AM	2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			10.91	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	539.00	100.000
2	ONE HOUR	✓	549.00	100.000
3	ONE HOUR	✓	694.00	100.000
4	ONE HOUR	✓	409.00	100.000
5	ONE HOUR	✓	350.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	26.000	243.000	182.000	88.000
	2	12.000	0.000	250.000	182.000	105.000
	3	227.000	139.000	0.000	61.000	267.000
	4	161.000	141.000	49.000	0.000	58.000
	5	72.000	105.000	129.000	44.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.02	0.00	0.46	0.33	0.19
	3	0.33	0.20	0.00	0.09	0.38
	4	0.39	0.34	0.12	0.00	0.14
	5	0.21	0.30	0.37	0.13	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.51	6.32	1.03	A
2	0.73	15.91	2.60	C
3	0.75	13.72	2.84	B
4	0.55	9.81	1.21	A
5	0.38	5.82	0.62	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	405.79	403.98	454.59	0.00	1299.88	0.312	0.45	4.010	A
2	413.32	410.44	550.84	0.00	981.96	0.421	0.72	6.268	A
3	522.48	519.24	458.88	0.00	1160.81	0.450	0.81	5.584	A
4	307.92	306.14	627.03	0.00	995.54	0.309	0.44	5.208	A
5	263.50	262.34	545.53	0.00	1166.47	0.226	0.29	3.977	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	484.55	483.82	544.56	0.00	1242.16	0.390	0.63	4.742	A
2	493.54	491.85	659.73	0.00	917.73	0.538	1.14	8.420	A
3	623.89	622.02	549.73	0.00	1103.72	0.565	1.28	7.443	A
4	367.68	366.83	751.16	0.00	920.40	0.399	0.66	6.503	A
5	314.64	314.21	653.60	0.00	1097.88	0.287	0.40	4.592	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	593.45	591.89	665.47	0.00	1164.60	0.510	1.02	6.267	A
2	604.46	598.95	807.08	0.00	830.81	0.728	2.52	15.175	C
3	764.11	758.22	671.03	0.00	1027.48	0.744	2.75	13.088	B
4	450.32	448.19	915.85	0.00	820.72	0.549	1.19	9.608	A
5	385.36	384.50	797.60	0.00	1006.49	0.383	0.61	5.779	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	593.45	593.41	668.19	0.00	1162.86	0.510	1.03	6.321	A
2	604.46	604.13	809.19	0.00	829.57	0.729	2.60	15.909	C
3	764.11	763.75	674.73	0.00	1025.16	0.745	2.84	13.724	B
4	450.32	450.22	922.25	0.00	816.84	0.551	1.21	9.813	A
5	385.36	385.34	802.37	0.00	1003.46	0.384	0.62	5.823	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	484.55	486.10	548.55	0.00	1239.60	0.391	0.65	4.788	A
2	493.54	499.17	662.90	0.00	915.86	0.539	1.19	8.751	A
3	623.89	629.91	555.02	0.00	1100.39	0.567	1.33	7.747	A
4	367.68	369.81	760.29	0.00	914.88	0.402	0.68	6.631	A
5	314.64	315.49	660.48	0.00	1093.52	0.288	0.41	4.631	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	405.79	406.54	458.16	0.00	1297.59	0.313	0.46	4.043	A
2	413.32	415.13	554.40	0.00	979.86	0.422	0.74	6.396	A
3	522.48	524.49	462.92	0.00	1158.27	0.451	0.83	5.697	A
4	307.92	308.82	633.24	0.00	991.78	0.310	0.45	5.279	A
5	263.50	263.95	550.71	0.00	1163.19	0.227	0.29	4.006	A

(Default Analysis Set) - 2019, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019, PM	2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			48.70	E

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	438.00	100.000
2	ONE HOUR	✓	530.00	100.000
3	ONE HOUR	✓	994.00	100.000
4	ONE HOUR	✓	528.00	100.000
5	ONE HOUR	✓	565.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	23.000	174.000	173.000	68.000
	2	25.000	0.000	255.000	182.000	68.000
	3	342.000	279.000	0.000	55.000	318.000
	4	207.000	184.000	72.000	0.000	65.000
	5	144.000	215.000	157.000	49.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.40	0.39	0.16
	2	0.05	0.00	0.48	0.34	0.13
	3	0.34	0.28	0.00	0.06	0.32
	4	0.39	0.35	0.14	0.00	0.12
	5	0.25	0.38	0.28	0.09	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.52	8.09	1.07	A
2	0.68	13.10	2.08	B
3	1.03	105.26	33.66	F
4	0.87	36.72	5.55	E
5	0.82	25.29	4.14	D

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	329.75	328.12	714.03	0.00	1133.45	0.291	0.41	4.461	A
2	399.01	396.39	518.65	0.00	1000.95	0.399	0.66	5.930	A
3	748.34	741.62	422.84	0.00	1183.46	0.632	1.68	8.032	A
4	397.51	394.25	821.08	0.00	878.08	0.453	0.81	7.393	A
5	425.36	422.37	827.74	0.00	987.36	0.431	0.75	6.339	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	393.75	392.98	854.34	0.00	1043.44	0.377	0.60	5.527	A
2	476.46	475.04	621.06	0.00	940.54	0.507	1.01	7.709	A
3	893.59	886.26	506.57	0.00	1130.84	0.790	3.51	14.301	B
4	474.66	471.91	981.59	0.00	780.93	0.608	1.50	11.547	B
5	507.92	505.64	989.92	0.00	884.42	0.574	1.32	9.447	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	482.25	480.48	1019.34	0.00	937.59	0.514	1.04	7.845	A
2	583.54	579.50	756.16	0.00	860.85	0.678	2.02	12.616	B
3	1094.41	1023.04	618.20	0.00	1060.69	1.032	21.35	56.604	F
4	581.34	568.60	1142.71	0.00	683.40	0.851	4.69	28.666	D
5	622.08	612.65	1165.08	0.00	773.24	0.805	3.67	21.279	C

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	482.25	482.13	1035.68	0.00	927.11	0.520	1.07	8.087	A
2	583.54	583.30	761.74	0.00	857.56	0.680	2.08	13.098	B
3	1094.41	1045.18	621.73	0.00	1058.47	1.034	33.66	105.261	F
4	581.34	577.89	1164.55	0.00	670.19	0.867	5.55	36.720	E
5	622.08	620.20	1187.23	0.00	759.17	0.819	4.14	25.285	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	393.75	395.45	906.43	0.00	1010.02	0.390	0.65	5.873	A
2	476.46	480.54	630.11	0.00	935.21	0.509	1.06	7.988	A
3	893.59	1010.93	511.84	0.00	1127.53	0.793	4.33	47.532	E
4	474.66	488.35	1100.71	0.00	708.83	0.670	2.13	17.231	C
5	507.92	517.90	1082.47	0.00	825.67	0.615	1.65	12.051	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	329.75	330.66	727.64	0.00	1124.72	0.293	0.42	4.538	A
2	399.01	400.54	524.55	0.00	997.47	0.400	0.67	6.045	A
3	748.34	758.55	426.96	0.00	1180.88	0.634	1.77	8.720	A
4	397.51	402.58	838.19	0.00	867.72	0.458	0.86	7.821	A
5	425.36	428.83	845.82	0.00	975.88	0.436	0.78	6.620	A

(Default Analysis Set) - Average Predicted 2019, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, AM	Average Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			10.88	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	500.00	100.000
2	ONE HOUR	✓	553.00	100.000
3	ONE HOUR	✓	715.00	100.000
4	ONE HOUR	✓	409.00	100.000
5	ONE HOUR	✓	353.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	24.000	225.000	169.000	82.000
	2	12.000	0.000	254.000	182.000	105.000
	3	234.000	143.000	0.000	63.000	275.000
	4	161.000	141.000	49.000	0.000	58.000
	5	72.000	105.000	132.000	44.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.02	0.00	0.46	0.33	0.19
	3	0.33	0.20	0.00	0.09	0.38
	4	0.39	0.34	0.12	0.00	0.14
	5	0.20	0.30	0.37	0.12	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.48	5.93	0.90	A
2	0.71	14.77	2.44	B
3	0.76	14.26	3.03	B
4	0.56	10.05	1.24	B
5	0.39	5.93	0.64	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	374.80	459.81	0.00	1296.53	0.290	0.41	3.900	A
2	416.33	413.49	525.40	0.00	996.97	0.418	0.71	6.141	A
3	538.29	534.92	444.70	0.00	1169.73	0.460	0.84	5.642	A
4	307.92	306.13	636.74	0.00	989.66	0.311	0.45	5.253	A
5	265.76	264.58	553.73	0.00	1161.27	0.229	0.30	4.010	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	448.85	550.82	0.00	1238.15	0.363	0.57	4.557	A
2	497.14	495.52	629.25	0.00	935.71	0.531	1.11	8.148	A
3	642.77	640.79	532.75	0.00	1114.39	0.577	1.34	7.569	A
4	367.68	366.81	762.78	0.00	913.37	0.403	0.67	6.575	A
5	317.34	316.89	663.42	0.00	1091.65	0.291	0.41	4.645	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	549.20	673.02	0.00	1159.76	0.475	0.89	5.882	A
2	608.86	603.84	769.86	0.00	852.77	0.714	2.37	14.179	B
3	787.23	780.85	650.52	0.00	1040.37	0.757	2.93	13.545	B
4	450.32	448.12	929.87	0.00	812.23	0.554	1.22	9.828	A
5	388.66	387.77	809.40	0.00	999.00	0.389	0.63	5.881	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	550.48	675.88	0.00	1157.92	0.475	0.90	5.926	A
2	608.86	608.59	771.76	0.00	851.65	0.715	2.44	14.769	B
3	787.23	786.83	653.84	0.00	1038.29	0.758	3.03	14.257	B
4	450.32	450.22	936.54	0.00	808.20	0.557	1.24	10.050	B
5	388.66	388.64	814.45	0.00	995.79	0.390	0.64	5.928	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	450.78	555.01	0.00	1235.46	0.364	0.58	4.595	A
2	497.14	502.25	632.12	0.00	934.02	0.532	1.16	8.434	A
3	642.77	649.31	537.52	0.00	1111.39	0.578	1.40	7.898	A
4	367.68	369.89	772.29	0.00	907.61	0.405	0.69	6.723	A
5	317.34	318.22	670.69	0.00	1087.03	0.292	0.42	4.689	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	377.08	463.48	0.00	1294.18	0.291	0.41	3.929	A
2	416.33	418.05	528.71	0.00	995.01	0.418	0.73	6.257	A
3	538.29	540.42	448.51	0.00	1167.33	0.461	0.87	5.763	A
4	307.92	308.84	643.09	0.00	985.81	0.312	0.46	5.324	A
5	265.76	266.22	559.07	0.00	1157.89	0.230	0.30	4.040	A

(Default Analysis Set) - Average Predicted 2019, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, PM	Average Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			52.21	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	500.00	100.000
2	ONE HOUR	✓	537.00	100.000
3	ONE HOUR	✓	997.00	100.000
4	ONE HOUR	✓	530.00	100.000
5	ONE HOUR	✓	569.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	24.000	225.000	169.000	82.000
	2	25.000	0.000	262.000	182.000	68.000
	3	343.000	280.000	0.000	55.000	319.000
	4	207.000	184.000	74.000	0.000	65.000
	5	144.000	215.000	161.000	49.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.05	0.00	0.49	0.34	0.13
	3	0.34	0.28	0.00	0.06	0.32
	4	0.39	0.35	0.14	0.00	0.12
	5	0.25	0.38	0.28	0.09	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.60	9.63	1.45	A
2	0.73	16.05	2.56	C
3	1.04	114.57	37.22	F
4	0.88	39.92	6.04	E
5	0.82	25.94	4.28	D

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	374.44	719.19	0.00	1130.14	0.333	0.50	4.751	A
2	404.28	401.46	568.69	0.00	971.43	0.416	0.70	6.287	A
3	750.59	743.76	430.19	0.00	1178.84	0.637	1.71	8.153	A
4	399.01	395.68	833.66	0.00	870.47	0.458	0.83	7.530	A
5	428.37	425.34	830.60	0.00	985.54	0.435	0.76	6.392	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	448.46	860.39	0.00	1039.56	0.432	0.75	6.081	A
2	482.75	481.09	680.97	0.00	905.20	0.533	1.12	8.454	A
3	896.28	888.60	515.34	0.00	1125.33	0.796	3.63	14.740	B
4	476.46	473.55	996.44	0.00	771.94	0.617	1.56	11.947	B
5	511.52	509.17	993.14	0.00	882.37	0.580	1.35	9.585	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	547.92	1024.47	0.00	934.31	0.589	1.40	9.254	A
2	591.25	585.89	828.77	0.00	818.02	0.723	2.46	15.166	C
3	1097.72	1020.29	628.20	0.00	1054.40	1.041	22.99	59.942	F
4	583.54	569.58	1155.33	0.00	675.77	0.864	5.05	30.590	D
5	626.48	616.74	1164.56	0.00	773.57	0.810	3.78	21.730	C

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	550.31	1040.89	0.00	923.77	0.596	1.45	9.631	A
2	591.25	590.85	835.30	0.00	814.17	0.726	2.56	16.052	C
3	1097.72	1040.80	632.61	0.00	1051.63	1.044	37.22	114.573	F
4	583.54	579.56	1175.96	0.00	663.28	0.880	6.04	39.918	E
5	626.48	624.50	1186.36	0.00	759.73	0.825	4.28	25.939	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	452.00	917.15	0.00	1003.15	0.448	0.82	6.562	A
2	482.75	488.26	691.44	0.00	899.03	0.537	1.18	8.878	A
3	896.28	1026.64	521.87	0.00	1121.23	0.799	4.63	57.537	F
4	476.46	491.28	1128.69	0.00	691.89	0.689	2.34	19.102	C
5	511.52	521.71	1095.28	0.00	817.54	0.626	1.73	12.558	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	377.68	733.78	0.00	1120.78	0.336	0.51	4.854	A
2	404.28	406.11	575.55	0.00	967.39	0.418	0.73	6.433	A
3	750.59	761.86	434.77	0.00	1175.96	0.638	1.81	8.917	A
4	399.01	404.84	852.10	0.00	859.30	0.464	0.88	8.020	A
5	428.37	432.10	850.17	0.00	973.12	0.440	0.80	6.698	A

(Default Analysis Set) - 85%ile Predicted 2019, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, AM	85%ile Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			11.01	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	500.00	100.000
2	ONE HOUR	✓	554.00	100.000
3	ONE HOUR	✓	720.00	100.000
4	ONE HOUR	✓	409.00	100.000
5	ONE HOUR	✓	353.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	24.000	225.000	169.000	82.000
	2	12.000	0.000	255.000	182.000	105.000
	3	235.000	144.000	0.000	64.000	277.000
	4	161.000	141.000	49.000	0.000	58.000
	5	72.000	105.000	132.000	44.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.02	0.00	0.46	0.33	0.19
	3	0.33	0.20	0.00	0.09	0.38
	4	0.39	0.34	0.12	0.00	0.14
	5	0.20	0.30	0.37	0.12	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.48	5.93	0.90	A
2	0.72	14.83	2.45	B
3	0.76	14.57	3.12	B
4	0.56	10.13	1.25	B
5	0.39	5.94	0.64	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	374.80	460.55	0.00	1296.06	0.290	0.41	3.902	A
2	417.08	414.24	525.40	0.00	996.97	0.418	0.71	6.149	A
3	542.05	538.64	444.70	0.00	1169.73	0.463	0.85	5.674	A
4	307.92	306.12	639.71	0.00	987.86	0.312	0.45	5.267	A
5	265.76	264.58	555.22	0.00	1160.33	0.229	0.30	4.014	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	448.85	551.70	0.00	1237.58	0.363	0.57	4.560	A
2	498.03	496.41	629.25	0.00	935.71	0.532	1.12	8.163	A
3	647.27	645.24	532.74	0.00	1114.39	0.581	1.36	7.640	A
4	367.68	366.81	766.34	0.00	911.22	0.404	0.67	6.601	A
5	317.34	316.89	665.19	0.00	1090.53	0.291	0.41	4.650	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	549.20	674.06	0.00	1159.09	0.475	0.89	5.889	A
2	609.97	604.90	769.85	0.00	852.77	0.715	2.38	14.237	B
3	792.73	786.13	650.50	0.00	1040.39	0.762	3.01	13.808	B
4	450.32	448.10	934.07	0.00	809.69	0.556	1.22	9.895	A
5	388.66	387.76	811.46	0.00	997.68	0.390	0.63	5.894	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	550.48	676.98	0.00	1157.22	0.476	0.90	5.933	A
2	609.97	609.69	771.76	0.00	851.65	0.716	2.45	14.833	B
3	792.73	792.31	653.84	0.00	1038.29	0.764	3.12	14.571	B
4	450.32	450.22	940.92	0.00	805.55	0.559	1.25	10.125	B
5	388.66	388.64	816.64	0.00	994.40	0.391	0.64	5.942	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	450.79	555.97	0.00	1234.84	0.364	0.58	4.598	A
2	498.03	503.19	632.13	0.00	934.01	0.533	1.16	8.452	A
3	647.27	654.05	537.54	0.00	1111.38	0.582	1.42	7.983	A
4	367.68	369.91	776.11	0.00	905.30	0.406	0.69	6.753	A
5	317.34	318.23	672.64	0.00	1085.80	0.292	0.42	4.696	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	377.08	464.24	0.00	1293.68	0.291	0.41	3.931	A
2	417.08	418.82	528.72	0.00	995.01	0.419	0.73	6.268	A
3	542.05	544.24	448.52	0.00	1167.33	0.464	0.88	5.797	A
4	307.92	308.85	646.15	0.00	983.96	0.313	0.46	5.341	A
5	265.76	266.22	560.60	0.00	1156.91	0.230	0.30	4.045	A

(Default Analysis Set) - 85%ile Predicted 2019, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Geometry	Arm 1 - Roundabout Geometry	Effective flare length is over 30m, which is outside the normal range. Treat capacities with increasing caution.

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, PM	85%ile Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4,5			53.43	F

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	A628 (NE)	
2	Pontefract Road (E)	
3	Ponterfract Road (S)	
4	Burton Road (West)	
5	North West approach arm	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.66	5.18	32.26	13.13	30.10	17.15	
2	3.57	4.73	3.66	20.18	30.10	18.50	
3	3.56	4.82	10.32	49.91	30.10	18.00	
4	3.47	4.74	8.92	19.98	30.10	17.00	
5	4.65	4.76	26.52	21.81	30.10	17.00	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None
5	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.641	1591.492
2		(calculated)	(calculated)	0.590	1306.887
3		(calculated)	(calculated)	0.628	1449.207
4		(calculated)	(calculated)	0.605	1375.064
5		(calculated)	(calculated)	0.635	1512.736

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	500.00	100.000
2	ONE HOUR	✓	538.00	100.000
3	ONE HOUR	✓	1000.00	100.000
4	ONE HOUR	✓	531.00	100.000
5	ONE HOUR	✓	570.00	100.000

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	24.000	225.000	169.000	82.000
	2	25.000	0.000	263.000	182.000	68.000
	3	344.000	281.000	0.000	55.000	320.000
	4	207.000	184.000	75.000	0.000	65.000
	5	144.000	215.000	162.000	49.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.00	0.05	0.45	0.34	0.16
	2	0.05	0.00	0.49	0.34	0.13
	3	0.34	0.28	0.00	0.06	0.32
	4	0.39	0.35	0.14	0.00	0.12
	5	0.25	0.38	0.28	0.09	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	1.000	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000	1.000
	5	1.000	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To				
		1	2	3	4	5
From	1	0.000	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000	0.000
	5	0.000	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.60	9.67	1.46	A
2	0.73	16.22	2.59	C
3	1.05	117.63	38.46	F
4	0.88	40.53	6.15	E
5	0.83	26.31	4.34	D

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	374.44	721.40	0.00	1128.72	0.334	0.50	4.760	A
2	405.03	402.20	570.18	0.00	970.56	0.417	0.71	6.302	A
3	752.85	745.96	430.18	0.00	1178.85	0.639	1.72	8.192	A
4	399.76	396.41	835.87	0.00	869.13	0.460	0.84	7.564	A
5	429.13	426.07	832.80	0.00	984.14	0.436	0.76	6.417	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	448.46	863.00	0.00	1037.88	0.433	0.76	6.096	A
2	483.65	481.97	682.74	0.00	904.16	0.535	1.13	8.492	A
3	898.98	891.16	515.33	0.00	1125.34	0.799	3.68	14.888	B
4	477.36	474.41	999.01	0.00	770.39	0.620	1.58	12.042	B
5	512.42	510.04	995.71	0.00	880.74	0.582	1.36	9.649	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	547.91	1026.88	0.00	932.76	0.590	1.41	9.292	A
2	592.35	586.91	830.83	0.00	816.81	0.725	2.49	15.305	C
3	1101.02	1021.41	628.15	0.00	1054.44	1.044	23.58	61.039	F
4	584.64	570.43	1156.54	0.00	675.03	0.866	5.13	30.969	D
5	627.58	617.67	1166.26	0.00	772.49	0.812	3.83	21.980	C

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	550.51	550.31	1043.35	0.00	922.19	0.597	1.46	9.672	A
2	592.35	591.94	837.46	0.00	812.89	0.729	2.59	16.220	C
3	1101.02	1041.50	632.60	0.00	1051.64	1.047	38.46	117.628	F
4	584.64	580.57	1176.79	0.00	662.78	0.882	6.15	40.532	E
5	627.58	625.55	1187.94	0.00	758.73	0.827	4.34	26.310	D

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	449.49	452.01	921.33	0.00	1000.47	0.449	0.83	6.595	A
2	483.65	489.25	693.36	0.00	897.90	0.539	1.19	8.925	A
3	898.98	1033.84	521.93	0.00	1121.19	0.802	4.75	61.149	F
4	477.36	492.32	1135.68	0.00	687.66	0.694	2.40	19.655	C
5	512.42	522.75	1100.94	0.00	813.95	0.630	1.76	12.772	B

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	376.43	377.69	736.36	0.00	1119.12	0.336	0.51	4.863	A
2	405.03	406.88	577.15	0.00	966.44	0.419	0.73	6.456	A
3	752.85	764.54	434.80	0.00	1175.95	0.640	1.83	8.985	A
4	399.76	405.84	854.76	0.00	857.69	0.466	0.89	8.071	A
5	429.13	432.95	852.90	0.00	971.38	0.442	0.80	6.734	A

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.2.316 [14 Feb 2013]
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Filename: Rotherham Road. Grange Road.arc8
Path: T:\70007115 - Lundwood Barnsley\D Design and Analysis\Development\ARCADY
Report generation date: 25/09/2014 18:34:25

» (Default Analysis Set) - 2014 Base, AM
» (Default Analysis Set) - 2014 Base, PM
» (Default Analysis Set) - 2019 Base, AM
» (Default Analysis Set) - 2019 Base, PM
» (Default Analysis Set) - Average Predicted 2019, AM
» (Default Analysis Set) - Average Predicted 2019, PM
» (Default Analysis Set) - 85%ile Predicted 2019, AM
» (Default Analysis Set) - 85%ile Predicted 2019, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	A1 - 2014 Base							
Arm 1	2.42	8.75	0.71	A	1.79	6.83	0.64	A
Arm 2	3.98	13.54	0.81	B	5.49	16.36	0.85	C
Arm 3	0.39	3.74	0.28	A	1.33	7.58	0.57	A
Arm 4	0.74	4.25	0.43	A	0.77	5.38	0.44	A
	A1 - 2019 Base							
Arm 1	3.60	12.15	0.79	B	2.43	8.60	0.71	A
Arm 2	7.09	22.97	0.89	C	11.44	32.35	0.94	D
Arm 3	0.46	4.08	0.32	A	1.90	10.07	0.66	B
Arm 4	0.89	4.80	0.47	A	1.00	6.47	0.50	A
	A1 - 85%ile Predicted 2019							
Arm 1	4.04	13.37	0.81	B	2.63	9.13	0.73	A
Arm 2	7.62	24.71	0.90	C	13.45	37.51	0.95	E
Arm 3	0.47	4.10	0.32	A	2.03	10.67	0.68	B
Arm 4	0.90	4.83	0.48	A	1.04	6.70	0.51	A
	A1 - Average Predicted 2019							
Arm 1	3.93	13.06	0.80	B	2.57	8.96	0.72	A
Arm 2	7.48	24.24	0.89	C	12.88	36.05	0.95	E
Arm 3	0.47	4.10	0.32	A	2.00	10.52	0.67	B
Arm 4	0.90	4.82	0.48	A	1.03	6.65	0.51	A

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

"D1 - 2014 Base, AM " model duration: 07:45 - 09:15
"D2 - 2014 Base, PM" model duration: 16:15 - 17:45
"D3 - 2019 Base, AM" model duration: 07:45 - 09:15
"D4 - 2019 Base, PM" model duration: 16:15 - 17:45
"D5 - Average Predicted 2019, AM" model duration: 07:45 - 09:15
"D6 - Average Predicted 2019, PM" model duration: 16:15 - 17:45
"D7 - 85%ile Predicted 2019, AM" model duration: 07:45 - 09:15
"D8 - 85%ile Predicted 2019, PM" model duration: 16:15 - 17:45

Run using Junctions 8.0.2.316 at 25/09/2014 18:34:21

File summary

File Description

Title	(untitled)
Location	
Site Number	
Date	22/09/2014
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

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

(Default Analysis Set) - 2014 Base, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014 Base, AM	2014 Base	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			8.91	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	920.00	100.000
2	ONE HOUR	✓	990.00	100.000
3	ONE HOUR	✓	345.00	100.000
4	ONE HOUR	✓	569.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
07:45-08:00	1	692.62	692.62		
07:45-08:00	2	745.32	745.32		
07:45-08:00	3	259.73	259.73		
07:45-08:00	4	428.37	428.37		
08:00-08:15	1	827.06	827.06		
08:00-08:15	2	889.99	889.99		
08:00-08:15	3	310.15	310.15		
08:00-08:15	4	511.52	511.52		
08:15-08:30	1	1012.94	1012.94		
08:15-08:30	2	1090.01	1090.01		
08:15-08:30	3	379.85	379.85		
08:15-08:30	4	626.48	626.48		
08:30-08:45	1	1012.94	1012.94		
08:30-08:45	2	1090.01	1090.01		
08:30-08:45	3	379.85	379.85		
08:30-08:45	4	626.48	626.48		
08:45-09:00	1	827.06	827.06		
08:45-09:00	2	889.99	889.99		
08:45-09:00	3	310.15	310.15		
08:45-09:00	4	511.52	511.52		
09:00-09:15	1	692.62	692.62		
09:00-09:15	2	745.32	745.32		
09:00-09:15	3	259.73	259.73		
09:00-09:15	4	428.37	428.37		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	432.000	455.000	33.000
	2	426.000	0.000	208.000	356.000
	3	235.000	84.000	0.000	26.000
	4	81.000	432.000	56.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.47	0.49	0.04
	2	0.43	0.00	0.21	0.36
	3	0.68	0.24	0.00	0.08
	4	0.14	0.76	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.71	8.75	2.42	A
2	0.81	13.54	3.98	B
3	0.28	3.74	0.39	A
4	0.43	4.25	0.74	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	692.62	689.49	429.26	0.00	1569.77	0.441	0.78	4.074	A
2	745.32	741.28	407.75	0.00	1475.15	0.505	1.01	4.880	A
3	259.73	258.93	610.27	0.00	1548.68	0.168	0.20	2.790	A
4	428.37	427.00	558.39	0.00	1670.13	0.256	0.34	2.893	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	827.06	825.40	513.71	0.00	1508.37	0.548	1.20	5.258	A
2	889.99	887.49	488.11	0.00	1424.15	0.625	1.63	6.678	A
3	310.15	309.88	730.64	0.00	1461.71	0.212	0.27	3.125	A
4	511.52	511.00	668.42	0.00	1587.19	0.322	0.47	3.343	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1012.94	1008.20	628.78	0.00	1424.71	0.711	2.38	8.545	A
2	1090.01	1081.21	596.34	0.00	1355.47	0.804	3.83	12.734	B
3	379.85	379.36	890.21	0.00	1346.41	0.282	0.39	3.720	A
4	626.48	625.45	816.02	0.00	1475.91	0.424	0.73	4.227	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1012.94	1012.78	629.76	0.00	1424.00	0.711	2.42	8.745	A
2	1090.01	1089.44	598.87	0.00	1353.87	0.805	3.98	13.538	B
3	379.85	379.84	896.87	0.00	1341.59	0.283	0.39	3.742	A
4	626.48	626.46	820.00	0.00	1472.91	0.425	0.74	4.252	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	827.06	831.83	515.21	0.00	1507.28	0.549	1.23	5.368	A
2	889.99	899.07	491.67	0.00	1421.89	0.626	1.71	7.002	A
3	310.15	310.63	740.01	0.00	1454.93	0.213	0.27	3.149	A
4	511.52	512.55	674.10	0.00	1582.90	0.323	0.48	3.368	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	692.62	694.36	431.15	0.00	1568.39	0.442	0.80	4.128	A
2	745.32	748.01	410.53	0.00	1473.39	0.506	1.03	4.982	A
3	259.73	260.01	615.76	0.00	1544.72	0.168	0.20	2.804	A
4	428.37	428.90	562.29	0.00	1667.19	0.257	0.35	2.907	A

(Default Analysis Set) - 2014 Base, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2014 Base, PM	2014 Base	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			10.30	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	868.00	100.000
2	ONE HOUR	✓	1143.00	100.000
3	ONE HOUR	✓	581.00	100.000
4	ONE HOUR	✓	471.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
16:15-16:30	1	653.48	653.48		
16:15-16:30	2	860.51	860.51		
16:15-16:30	3	437.41	437.41		
16:15-16:30	4	354.59	354.59		
16:30-16:45	1	780.31	780.31		
16:30-16:45	2	1027.53	1027.53		
16:30-16:45	3	522.31	522.31		
16:30-16:45	4	423.42	423.42		
16:45-17:00	1	955.69	955.69		
16:45-17:00	2	1258.47	1258.47		
16:45-17:00	3	639.69	639.69		
16:45-17:00	4	518.58	518.58		
17:00-17:15	1	955.69	955.69		
17:00-17:15	2	1258.47	1258.47		
17:00-17:15	3	639.69	639.69		
17:00-17:15	4	518.58	518.58		
17:15-17:30	1	780.31	780.31		
17:15-17:30	2	1027.53	1027.53		
17:15-17:30	3	522.31	522.31		
17:15-17:30	4	423.42	423.42		
17:30-17:45	1	653.48	653.48		
17:30-17:45	2	860.51	860.51		
17:30-17:45	3	437.41	437.41		
17:30-17:45	4	354.59	354.59		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	510.000	304.000	54.000
	2	559.000	0.000	96.000	488.000
	3	393.000	137.000	0.000	51.000
	4	109.000	349.000	13.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.59	0.35	0.06
	2	0.49	0.00	0.08	0.43
	3	0.68	0.24	0.00	0.09
	4	0.23	0.74	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.64	6.83	1.79	A
2	0.85	16.36	5.49	C
3	0.57	7.58	1.33	A
4	0.44	5.38	0.77	A

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	653.48	650.76	374.28	0.00	1609.74	0.406	0.68	3.743	A
2	860.51	855.63	278.15	0.00	1557.39	0.553	1.22	5.096	A
3	437.41	435.59	824.25	0.00	1394.06	0.314	0.45	3.750	A
4	354.59	353.33	815.81	0.00	1476.07	0.240	0.31	3.204	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	780.31	779.05	447.95	0.00	1556.18	0.501	1.00	4.625	A
2	1027.53	1024.30	332.98	0.00	1522.60	0.675	2.03	7.177	A
3	522.31	521.38	986.74	0.00	1276.66	0.409	0.69	4.760	A
4	423.42	422.87	976.56	0.00	1354.89	0.313	0.45	3.860	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	955.69	952.57	547.88	0.00	1483.53	0.644	1.77	6.743	A
2	1258.47	1245.71	407.16	0.00	1475.52	0.853	5.22	14.895	B
3	639.69	637.23	1200.34	0.00	1122.32	0.570	1.30	7.385	A
4	518.58	517.35	1190.53	0.00	1193.59	0.434	0.76	5.314	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	955.69	955.60	549.35	0.00	1482.46	0.645	1.79	6.830	A
2	1258.47	1257.38	408.44	0.00	1474.71	0.853	5.49	16.356	C
3	639.69	639.58	1211.22	0.00	1114.46	0.574	1.33	7.578	A
4	518.58	518.54	1198.37	0.00	1187.67	0.437	0.77	5.379	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	780.31	783.42	450.12	0.00	1554.60	0.502	1.02	4.688	A
2	1027.53	1040.97	334.84	0.00	1521.42	0.675	2.13	7.693	A
3	522.31	524.79	1002.27	0.00	1265.43	0.413	0.71	4.876	A
4	423.42	424.65	987.83	0.00	1346.39	0.314	0.46	3.912	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	653.48	654.79	376.34	0.00	1608.24	0.406	0.69	3.782	A
2	860.51	864.03	279.87	0.00	1556.30	0.553	1.25	5.227	A
3	437.41	438.39	832.19	0.00	1388.33	0.315	0.46	3.795	A
4	354.59	355.16	822.48	0.00	1471.05	0.241	0.32	3.229	A

(Default Analysis Set) - 2019 Base, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019 Base, AM	2019 Base	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			13.48	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	993.00	100.000
2	ONE HOUR	✓	1067.00	100.000
3	ONE HOUR	✓	372.00	100.000
4	ONE HOUR	✓	613.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
07:45-08:00	1	747.58	747.58		
07:45-08:00	2	803.29	803.29		
07:45-08:00	3	280.06	280.06		
07:45-08:00	4	461.50	461.50		
08:00-08:15	1	892.69	892.69		
08:00-08:15	2	959.21	959.21		
08:00-08:15	3	334.42	334.42		
08:00-08:15	4	551.07	551.07		
08:15-08:30	1	1093.31	1093.31		
08:15-08:30	2	1174.79	1174.79		
08:15-08:30	3	409.58	409.58		
08:15-08:30	4	674.93	674.93		
08:30-08:45	1	1093.31	1093.31		
08:30-08:45	2	1174.79	1174.79		
08:30-08:45	3	409.58	409.58		
08:30-08:45	4	674.93	674.93		
08:45-09:00	1	892.69	892.69		
08:45-09:00	2	959.21	959.21		
08:45-09:00	3	334.42	334.42		
08:45-09:00	4	551.07	551.07		
09:00-09:15	1	747.58	747.58		
09:00-09:15	2	803.29	803.29		
09:00-09:15	3	280.06	280.06		
09:00-09:15	4	461.50	461.50		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	466.000	491.000	36.000
	2	459.000	0.000	224.000	384.000
	3	253.000	91.000	0.000	28.000
	4	87.000	466.000	60.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.47	0.49	0.04
	2	0.43	0.00	0.21	0.36
	3	0.68	0.24	0.00	0.08
	4	0.14	0.76	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.79	12.15	3.60	B
2	0.89	22.97	7.09	C
3	0.32	4.08	0.46	A
4	0.47	4.80	0.89	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	747.58	743.87	462.95	0.00	1545.28	0.484	0.93	4.472	A
2	803.29	798.43	439.80	0.00	1454.81	0.552	1.22	5.445	A
3	280.06	279.16	657.78	0.00	1514.35	0.185	0.23	2.913	A
4	461.50	459.94	601.61	0.00	1637.55	0.282	0.39	3.053	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	892.69	890.41	554.05	0.00	1479.04	0.604	1.50	6.093	A
2	959.21	955.60	526.43	0.00	1399.84	0.685	2.12	8.037	A
3	334.42	334.10	787.27	0.00	1420.79	0.235	0.31	3.313	A
4	551.07	550.44	720.03	0.00	1548.27	0.356	0.55	3.606	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1093.31	1085.34	678.03	0.00	1388.90	0.787	3.49	11.564	B
2	1174.79	1157.28	641.94	0.00	1326.54	0.886	6.50	19.527	C
3	409.58	408.98	953.67	0.00	1300.55	0.315	0.46	4.035	A
4	674.93	673.59	876.03	0.00	1430.67	0.472	0.88	4.746	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1093.31	1092.89	679.29	0.00	1387.99	0.788	3.60	12.154	B
2	1174.79	1172.42	646.07	0.00	1323.91	0.887	7.09	22.971	C
3	409.58	409.56	965.91	0.00	1291.71	0.317	0.46	4.080	A
4	674.93	674.89	883.08	0.00	1425.36	0.474	0.89	4.796	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	892.69	900.86	555.96	0.00	1477.65	0.604	1.55	6.328	A
2	959.21	978.53	532.17	0.00	1396.19	0.687	2.26	8.995	A
3	334.42	335.02	805.76	0.00	1407.43	0.238	0.31	3.360	A
4	551.07	552.41	730.74	0.00	1540.20	0.358	0.56	3.651	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	747.58	750.00	465.16	0.00	1543.67	0.484	0.95	4.551	A
2	803.29	807.31	443.27	0.00	1452.61	0.553	1.25	5.614	A
3	280.06	280.40	665.02	0.00	1509.12	0.186	0.23	2.930	A
4	461.50	462.16	606.58	0.00	1633.80	0.282	0.40	3.073	A

(Default Analysis Set) - 2019 Base, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2019 Base, PM	2019 Base	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			17.41	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	938.00	100.000
2	ONE HOUR	✓	1235.00	100.000
3	ONE HOUR	✓	628.00	100.000
4	ONE HOUR	✓	509.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
16:15-16:30	1	706.18	706.18		
16:15-16:30	2	929.77	929.77		
16:15-16:30	3	472.79	472.79		
16:15-16:30	4	383.20	383.20		
16:30-16:45	1	843.24	843.24		
16:30-16:45	2	1110.24	1110.24		
16:30-16:45	3	564.56	564.56		
16:30-16:45	4	457.58	457.58		
16:45-17:00	1	1032.76	1032.76		
16:45-17:00	2	1359.76	1359.76		
16:45-17:00	3	691.44	691.44		
16:45-17:00	4	560.42	560.42		
17:00-17:15	1	1032.76	1032.76		
17:00-17:15	2	1359.76	1359.76		
17:00-17:15	3	691.44	691.44		
17:00-17:15	4	560.42	560.42		
17:15-17:30	1	843.24	843.24		
17:15-17:30	2	1110.24	1110.24		
17:15-17:30	3	564.56	564.56		
17:15-17:30	4	457.58	457.58		
17:30-17:45	1	706.18	706.18		
17:30-17:45	2	929.77	929.77		
17:30-17:45	3	472.79	472.79		
17:30-17:45	4	383.20	383.20		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	551.000	329.000	58.000
	2	604.000	0.000	104.000	527.000
	3	425.000	148.000	0.000	55.000
	4	118.000	377.000	14.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.59	0.35	0.06
	2	0.49	0.00	0.08	0.43
	3	0.68	0.24	0.00	0.09
	4	0.23	0.74	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.71	8.60	2.43	A
2	0.94	32.35	11.44	D
3	0.66	10.07	1.90	B
4	0.50	6.47	1.00	A

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	706.18	703.00	404.16	0.00	1588.02	0.445	0.79	4.053	A
2	929.77	923.81	300.54	0.00	1543.18	0.603	1.49	5.758	A
3	472.79	470.64	889.48	0.00	1346.93	0.351	0.54	4.098	A
4	383.20	381.74	881.23	0.00	1426.75	0.269	0.37	3.440	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	843.24	841.57	483.71	0.00	1530.18	0.551	1.21	5.215	A
2	1110.24	1105.37	359.78	0.00	1505.59	0.737	2.71	8.886	A
3	564.56	563.30	1064.32	0.00	1220.60	0.463	0.85	5.467	A
4	457.58	456.87	1054.57	0.00	1296.08	0.353	0.54	4.286	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1032.76	1028.06	591.22	0.00	1452.02	0.711	2.39	8.398	A
2	1359.76	1330.98	439.52	0.00	1454.99	0.935	9.90	24.736	C
3	691.44	687.62	1282.47	0.00	1062.98	0.650	1.81	9.496	A
4	560.42	558.69	1278.34	0.00	1127.39	0.497	0.98	6.311	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1032.76	1032.59	593.30	0.00	1450.51	0.712	2.43	8.605	A
2	1359.76	1353.59	441.44	0.00	1453.77	0.935	11.44	32.348	D
3	691.44	691.08	1303.46	0.00	1047.81	0.660	1.90	10.073	B
4	560.42	560.33	1292.56	0.00	1116.67	0.502	1.00	6.468	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	843.24	847.98	486.82	0.00	1527.92	0.552	1.25	5.332	A
2	1110.24	1144.29	362.49	0.00	1503.87	0.738	2.93	10.892	B
3	564.56	568.52	1100.36	0.00	1194.56	0.473	0.91	5.787	A
4	457.58	459.32	1078.37	0.00	1278.14	0.358	0.56	4.407	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	706.18	707.93	406.71	0.00	1586.16	0.445	0.81	4.107	A
2	929.77	935.33	302.64	0.00	1541.85	0.603	1.54	5.987	A
3	472.79	474.22	900.34	0.00	1339.09	0.353	0.55	4.169	A
4	383.20	383.96	890.13	0.00	1420.05	0.270	0.37	3.476	A

(Default Analysis Set) - Average Predicted 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, AM	Average Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			14.21	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1012.00	100.000
2	ONE HOUR	✓	1069.00	100.000
3	ONE HOUR	✓	374.00	100.000
4	ONE HOUR	✓	614.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
07:45-08:00	1	761.89	761.89		
07:45-08:00	2	804.80	804.80		
07:45-08:00	3	281.57	281.57		
07:45-08:00	4	462.25	462.25		
08:00-08:15	1	909.77	909.77		
08:00-08:15	2	961.01	961.01		
08:00-08:15	3	336.22	336.22		
08:00-08:15	4	551.97	551.97		
08:15-08:30	1	1114.23	1114.23		
08:15-08:30	2	1176.99	1176.99		
08:15-08:30	3	411.78	411.78		
08:15-08:30	4	676.03	676.03		
08:30-08:45	1	1114.23	1114.23		
08:30-08:45	2	1176.99	1176.99		
08:30-08:45	3	411.78	411.78		
08:30-08:45	4	676.03	676.03		
08:45-09:00	1	909.77	909.77		
08:45-09:00	2	961.01	961.01		
08:45-09:00	3	336.22	336.22		
08:45-09:00	4	551.97	551.97		
09:00-09:15	1	761.89	761.89		
09:00-09:15	2	804.80	804.80		
09:00-09:15	3	281.57	281.57		
09:00-09:15	4	462.25	462.25		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	475.000	501.000	36.000
	2	461.000	0.000	224.000	384.000
	3	255.000	91.000	0.000	28.000
	4	88.000	466.000	60.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.47	0.50	0.04
	2	0.43	0.00	0.21	0.36
	3	0.68	0.24	0.00	0.07
	4	0.14	0.76	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.80	13.06	3.93	B
2	0.89	24.24	7.48	C
3	0.32	4.10	0.47	A
4	0.48	4.82	0.90	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	761.89	758.04	462.94	0.00	1545.28	0.493	0.96	4.551	A
2	804.80	799.88	447.26	0.00	1450.08	0.555	1.23	5.497	A
3	281.57	280.66	659.24	0.00	1513.30	0.186	0.23	2.919	A
4	462.25	460.68	604.59	0.00	1635.30	0.283	0.39	3.061	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	909.77	907.34	554.04	0.00	1479.05	0.615	1.57	6.271	A
2	961.01	957.30	535.34	0.00	1394.18	0.689	2.16	8.170	A
3	336.22	335.89	788.98	0.00	1419.55	0.237	0.31	3.322	A
4	551.97	551.33	723.58	0.00	1545.60	0.357	0.55	3.619	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1114.23	1105.32	678.02	0.00	1388.91	0.802	3.80	12.322	B
2	1176.99	1158.43	652.45	0.00	1319.87	0.892	6.80	20.316	C
3	411.78	411.17	955.01	0.00	1299.59	0.317	0.46	4.049	A
4	676.03	674.67	879.95	0.00	1427.71	0.474	0.89	4.771	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1114.23	1113.71	679.29	0.00	1387.99	0.803	3.93	13.059	B
2	1176.99	1174.28	657.03	0.00	1316.96	0.894	7.48	24.239	C
3	411.78	411.76	967.84	0.00	1290.32	0.319	0.47	4.097	A
4	676.03	675.99	887.33	0.00	1422.15	0.475	0.90	4.824	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	909.77	918.95	555.97	0.00	1477.65	0.616	1.63	6.545	A
2	961.01	981.69	541.70	0.00	1390.15	0.691	2.31	9.233	A
3	336.22	336.82	808.67	0.00	1405.32	0.239	0.32	3.372	A
4	551.97	553.32	734.95	0.00	1537.03	0.359	0.56	3.663	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	761.89	764.47	465.16	0.00	1543.66	0.494	0.98	4.636	A
2	804.80	808.95	450.89	0.00	1447.77	0.556	1.27	5.672	A
3	281.57	281.91	666.64	0.00	1507.95	0.187	0.23	2.936	A
4	462.25	462.92	609.66	0.00	1631.48	0.283	0.40	3.081	A

(Default Analysis Set) - Average Predicted 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Average Predicted 2019, PM	Average Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			18.99	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	953.00	100.000
2	ONE HOUR	✓	1245.00	100.000
3	ONE HOUR	✓	635.00	100.000
4	ONE HOUR	✓	511.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
16:15-16:30	1	717.47	717.47		
16:15-16:30	2	937.30	937.30		
16:15-16:30	3	478.06	478.06		
16:15-16:30	4	384.71	384.71		
16:30-16:45	1	856.73	856.73		
16:30-16:45	2	1119.23	1119.23		
16:30-16:45	3	570.85	570.85		
16:30-16:45	4	459.38	459.38		
16:45-17:00	1	1049.27	1049.27		
16:45-17:00	2	1370.77	1370.77		
16:45-17:00	3	699.15	699.15		
16:45-17:00	4	562.62	562.62		
17:00-17:15	1	1049.27	1049.27		
17:00-17:15	2	1370.77	1370.77		
17:00-17:15	3	699.15	699.15		
17:00-17:15	4	562.62	562.62		
17:15-17:30	1	856.73	856.73		
17:15-17:30	2	1119.23	1119.23		
17:15-17:30	3	570.85	570.85		
17:15-17:30	4	459.38	459.38		
17:30-17:45	1	717.47	717.47		
17:30-17:45	2	937.30	937.30		
17:30-17:45	3	478.06	478.06		
17:30-17:45	4	384.71	384.71		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	560.000	334.000	59.000
	2	614.000	0.000	104.000	527.000
	3	432.000	148.000	0.000	55.000
	4	120.000	377.000	14.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.59	0.35	0.06
	2	0.49	0.00	0.08	0.42
	3	0.68	0.23	0.00	0.09
	4	0.23	0.74	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.72	8.96	2.57	A
2	0.95	36.05	12.88	E
3	0.67	10.52	2.00	B
4	0.51	6.65	1.03	A

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	717.47	714.20	404.14	0.00	1588.03	0.452	0.82	4.105	A
2	937.30	931.19	305.02	0.00	1540.34	0.609	1.53	5.852	A
3	478.06	475.86	897.62	0.00	1341.06	0.356	0.55	4.151	A
4	384.71	383.23	893.88	0.00	1417.22	0.271	0.37	3.477	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	856.73	854.97	483.69	0.00	1530.20	0.560	1.26	5.317	A
2	1119.23	1114.09	365.14	0.00	1502.19	0.745	2.81	9.154	A
3	570.85	569.54	1073.96	0.00	1213.64	0.470	0.88	5.578	A
4	459.38	458.65	1069.65	0.00	1284.71	0.358	0.55	4.354	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1049.27	1044.22	591.12	0.00	1452.09	0.723	2.52	8.718	A
2	1370.77	1338.49	445.98	0.00	1450.89	0.945	10.88	26.595	D
3	699.15	695.08	1291.33	0.00	1056.58	0.662	1.90	9.849	A
4	562.62	560.81	1294.98	0.00	1114.84	0.505	1.00	6.477	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1049.27	1049.08	593.28	0.00	1450.52	0.723	2.57	8.955	A
2	1370.77	1362.80	448.03	0.00	1449.59	0.946	12.88	36.049	E
3	699.15	698.73	1313.91	0.00	1040.26	0.672	2.00	10.518	B
4	562.62	562.52	1310.31	0.00	1103.29	0.510	1.03	6.655	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	856.73	861.82	486.93	0.00	1527.84	0.561	1.29	5.445	A
2	1119.23	1158.49	368.04	0.00	1500.35	0.746	3.06	11.651	B
3	570.85	575.08	1115.07	0.00	1183.93	0.482	0.94	5.954	A
4	459.38	461.20	1096.61	0.00	1264.39	0.363	0.58	4.493	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	717.47	719.31	406.75	0.00	1586.14	0.452	0.83	4.163	A
2	937.30	943.21	307.19	0.00	1538.96	0.609	1.58	6.103	A
3	478.06	479.58	908.96	0.00	1332.86	0.359	0.56	4.227	A
4	384.71	385.50	903.21	0.00	1410.18	0.273	0.38	3.515	A

(Default Analysis Set) - 85%ile Predicted 2019, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, AM	85%ile Predicted 2019	AM		ONE HOUR	07:45	09:15	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			14.48	B

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	1018.00	100.000
2	ONE HOUR	✓	1070.00	100.000
3	ONE HOUR	✓	374.00	100.000
4	ONE HOUR	✓	614.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
07:45-08:00	1	766.40	766.40		
07:45-08:00	2	805.55	805.55		
07:45-08:00	3	281.57	281.57		
07:45-08:00	4	462.25	462.25		
08:00-08:15	1	915.16	915.16		
08:00-08:15	2	961.91	961.91		
08:00-08:15	3	336.22	336.22		
08:00-08:15	4	551.97	551.97		
08:15-08:30	1	1120.84	1120.84		
08:15-08:30	2	1178.09	1178.09		
08:15-08:30	3	411.78	411.78		
08:15-08:30	4	676.03	676.03		
08:30-08:45	1	1120.84	1120.84		
08:30-08:45	2	1178.09	1178.09		
08:30-08:45	3	411.78	411.78		
08:30-08:45	4	676.03	676.03		
08:45-09:00	1	915.16	915.16		
08:45-09:00	2	961.91	961.91		
08:45-09:00	3	336.22	336.22		
08:45-09:00	4	551.97	551.97		
09:00-09:15	1	766.40	766.40		
09:00-09:15	2	805.55	805.55		
09:00-09:15	3	281.57	281.57		
09:00-09:15	4	462.25	462.25		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	478.000	503.000	37.000
	2	462.000	0.000	224.000	384.000
	3	255.000	91.000	0.000	28.000
	4	88.000	466.000	60.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.47	0.49	0.04
	2	0.43	0.00	0.21	0.36
	3	0.68	0.24	0.00	0.07
	4	0.14	0.76	0.10	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.81	13.37	4.04	B
2	0.90	24.71	7.62	C
3	0.32	4.10	0.47	A
4	0.48	4.83	0.90	A

Main Results for each time segment

Main results: (07:45-08:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	766.40	762.51	462.94	0.00	1545.28	0.496	0.97	4.576	A
2	805.55	800.61	449.49	0.00	1448.66	0.556	1.24	5.514	A
3	281.57	280.66	660.72	0.00	1512.23	0.186	0.23	2.922	A
4	462.25	460.68	605.33	0.00	1634.74	0.283	0.39	3.062	A

Main results: (08:00-08:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	915.16	912.68	554.04	0.00	1479.05	0.619	1.59	6.328	A
2	961.91	958.16	538.01	0.00	1392.49	0.691	2.17	8.216	A
3	336.22	335.89	790.75	0.00	1418.27	0.237	0.31	3.326	A
4	551.97	551.33	724.46	0.00	1544.94	0.357	0.55	3.621	A

Main results: (08:15-08:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1120.84	1111.61	678.02	0.00	1388.91	0.807	3.90	12.581	B
2	1178.09	1159.13	655.58	0.00	1317.88	0.894	6.91	20.602	C
3	411.78	411.17	956.88	0.00	1298.24	0.317	0.46	4.056	A
4	676.03	674.67	880.88	0.00	1427.02	0.474	0.89	4.776	A

Main results: (08:30-08:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1120.84	1120.28	679.29	0.00	1387.99	0.808	4.04	13.374	B
2	1178.09	1175.25	660.31	0.00	1314.88	0.896	7.62	24.709	C
3	411.78	411.76	969.93	0.00	1288.80	0.320	0.47	4.104	A
4	676.03	675.99	888.38	0.00	1421.37	0.476	0.90	4.829	A

Main results: (08:45-09:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	915.16	924.70	555.97	0.00	1477.64	0.619	1.66	6.620	A
2	961.91	983.10	544.58	0.00	1388.32	0.693	2.32	9.321	A
3	336.22	336.82	810.90	0.00	1403.71	0.240	0.32	3.378	A
4	551.97	553.32	736.08	0.00	1536.17	0.359	0.56	3.666	A

Main results: (09:00-09:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	766.40	769.05	465.17	0.00	1543.66	0.496	1.00	4.662	A
2	805.55	809.75	453.18	0.00	1446.32	0.557	1.27	5.691	A
3	281.57	281.91	668.19	0.00	1506.83	0.187	0.23	2.941	A
4	462.25	462.92	610.44	0.00	1630.89	0.283	0.40	3.085	A

(Default Analysis Set) - 85%ile Predicted 2019, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
85%ile Predicted 2019, PM	85%ile Predicted 2019	PM		ONE HOUR	16:15	17:45	90	15		

Junction Network

Junctions

Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
(untitled)	Roundabout	1,2,3,4			19.61	C

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description
1	Pontefract Road (N)	
2	Grange Lane (SE)	
3	Pontefract Road (S)	
4	Rotherham Road (W)	

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	4.12	6.57	16.45	91.67	15.35	19.50	
2	5.72	8.28	3.72	11.13	15.35	54.00	
3	6.26	6.98	2.54	13.63	15.35	26.50	
4	5.58	8.54	6.21	30.54	15.35	28.50	

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

Pedestrian Crossings

Arm	Crossing Type
1	None
2	None
3	None
4	None

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.727	1881.853
2		(calculated)	(calculated)	0.635	1733.904
3		(calculated)	(calculated)	0.723	1989.638
4		(calculated)	(calculated)	0.754	2091.077

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

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	ONE HOUR	✓	960.00	100.000
2	ONE HOUR	✓	1248.00	100.000
3	ONE HOUR	✓	637.00	100.000
4	ONE HOUR	✓	511.00	100.000

Direct/Resultant Flows

Direct Flows Data

Time Segment	Arm	Direct Demand Entry Flow (PCU/hr)	DirectDemandEntryFlowInPCU (PCU/hr)	Direct Demand Exit Flow (PCU/hr)	Direct Demand Pedestrian Flow (Ped/hr)
16:15-16:30	1	722.74	722.74		
16:15-16:30	2	939.56	939.56		
16:15-16:30	3	479.57	479.57		
16:15-16:30	4	384.71	384.71		
16:30-16:45	1	863.02	863.02		
16:30-16:45	2	1121.93	1121.93		
16:30-16:45	3	572.65	572.65		
16:30-16:45	4	459.38	459.38		
16:45-17:00	1	1056.98	1056.98		
16:45-17:00	2	1374.07	1374.07		
16:45-17:00	3	701.35	701.35		
16:45-17:00	4	562.62	562.62		
17:00-17:15	1	1056.98	1056.98		
17:00-17:15	2	1374.07	1374.07		
17:00-17:15	3	701.35	701.35		
17:00-17:15	4	562.62	562.62		
17:15-17:30	1	863.02	863.02		
17:15-17:30	2	1121.93	1121.93		
17:15-17:30	3	572.65	572.65		
17:15-17:30	4	459.38	459.38		
17:30-17:45	1	722.74	722.74		
17:30-17:45	2	939.56	939.56		
17:30-17:45	3	479.57	479.57		
17:30-17:45	4	384.71	384.71		

Turning Proportions

Turning Counts or Proportions (PCU/hr) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	564.000	336.000	60.000
	2	617.000	0.000	104.000	527.000
	3	434.000	148.000	0.000	55.000
	4	120.000	377.000	14.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.00	0.59	0.35	0.06
	2	0.49	0.00	0.08	0.42
	3	0.68	0.23	0.00	0.09
	4	0.23	0.74	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	1.000	1.000	1.000	1.000
	2	1.000	1.000	1.000	1.000
	3	1.000	1.000	1.000	1.000
	4	1.000	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To			
		1	2	3	4
From	1	0.000	0.000	0.000	0.000
	2	0.000	0.000	0.000	0.000
	3	0.000	0.000	0.000	0.000
	4	0.000	0.000	0.000	0.000

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.73	9.13	2.63	A
2	0.95	37.51	13.45	E
3	0.68	10.67	2.03	B
4	0.51	6.70	1.04	A

Main Results for each time segment

Main results: (16:15-16:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	722.74	719.43	404.14	0.00	1588.03	0.455	0.83	4.129	A
2	939.56	933.39	307.26	0.00	1538.92	0.611	1.54	5.888	A
3	479.57	477.35	900.58	0.00	1338.92	0.358	0.55	4.167	A
4	384.71	383.22	897.60	0.00	1414.41	0.272	0.37	3.487	A

Main results: (16:30-16:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	863.02	861.23	483.68	0.00	1530.20	0.564	1.28	5.367	A
2	1121.93	1116.69	367.82	0.00	1500.49	0.748	2.85	9.252	A
3	572.65	571.32	1077.46	0.00	1211.11	0.473	0.89	5.615	A
4	459.38	458.65	1074.07	0.00	1281.38	0.359	0.55	4.372	A

Main results: (16:45-17:00)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1056.98	1051.75	591.09	0.00	1452.11	0.728	2.58	8.877	A
2	1374.07	1340.43	449.21	0.00	1448.84	0.948	11.26	27.303	D
3	701.35	697.20	1294.47	0.00	1054.31	0.665	1.92	9.965	A
4	562.62	560.80	1299.70	0.00	1111.29	0.506	1.01	6.519	A

Main results: (17:00-17:15)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	1056.98	1056.77	593.27	0.00	1450.53	0.729	2.63	9.131	A
2	1374.07	1365.33	451.33	0.00	1447.49	0.949	13.45	37.507	E
3	701.35	700.91	1317.60	0.00	1037.59	0.676	2.03	10.668	B
4	562.62	562.52	1315.40	0.00	1099.45	0.512	1.04	6.702	A

Main results: (17:15-17:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	863.02	868.30	486.96	0.00	1527.82	0.565	1.32	5.500	A
2	1121.93	1163.28	370.81	0.00	1498.59	0.749	3.11	11.964	B
3	572.65	576.97	1120.61	0.00	1179.93	0.485	0.95	6.013	A
4	459.38	461.21	1102.26	0.00	1260.12	0.365	0.58	4.516	A

Main results: (17:30-17:45)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	722.74	724.62	406.76	0.00	1586.13	0.456	0.84	4.189	A
2	939.56	945.61	309.47	0.00	1537.52	0.611	1.60	6.141	A
3	479.57	481.12	912.10	0.00	1330.59	0.360	0.57	4.246	A
4	384.71	385.51	907.07	0.00	1407.27	0.273	0.38	3.525	A

Appendix 8

Date Modified:

Drawn By:

File:

KEY

Site Location

Walk Distance

0 - 400m

400 - 800m

800 - 1200m

1200 - 1600m

1600 - 2000m

Local Facilities

Primary School

Secondary School

Special Education School

Health & Fitness Centre

Pharmacy

GP Surgery

Sainsburys

Iceland

Co-operative

Premiere Foodstore

Post-Office

Carlton Industrial Estate

Cudworth

West Green

B6132

Monk Bretton

Old Mill

Lundwood

Rifle Range Farm

Cudworth Common

Sunny Bank

River Dearne

Cundy Cross

A633

A628

Hoyle Mill

Scorah Wood

Horse Carr Wood

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0 0.075 0.15 0.3 0.45 0.6 Kilometres

WSP

TITLE:

2KM PEDESTRIAN ISOCHRONE WITH LOCAL FACILITIES

FIGURE No:

FIGURE 1

Appendix 9

Date Modified:

Drawn By:

File:

KEY

Site Location

Cycle Distance

0 - 1000m

1000 - 2000m

2000 - 3000m

3000 - 4000m

4000 - 5000m

Ridings Quarry
Notton Park
Lee Lane Farm
Royston
Old Colliery Farm
Hemp Dike
Rabbit Ings
Sandybridge Dike
Shafton
Pudding Hill
BRIERLEY
Burntwood Sports And
Pools Bridge
North Field
Shafton Two Gates
Shaw Dike Bridge
Cudworth
Upper Cudworth
Tom Bank Wood
Burntwood Lodge
Brierely Manor
Ringstone Hill Farm
A61
B6428
B6131
Mapplewell
Staincross
Athersley North
Carlton
Carlton Marsh Nature Reserve
Cudworth Dike
Home Farm
Blacker Hill
B6132
New Lodge
Athersley South
Carlton Industrial Estate
Cudworth
Belle Green
Burntwood Hall Farm
Howell Wood Country Park
Swallow Hill Farm
Standhill Wood
A633
West Green
Grimethorpe
Houghton Common
Howell Wood
Lady Wood
West Haigh Lodge
Smithies
Wilthorpe
Honeywell
Monk Bretton
Rifle Range Farm
Lundwood
Cudworth Common
Miles Wood
Gawber
Old Town
Old Mill
Sunny Bank
River Dearne
Storrs Mill Farm
Great Houghton Quarry
Houghton Green
Pogmoor
BARNSLEY
Cundy Cross
Storrs Mill Bridge
Storrs Wood
Hollins Wood
Major Wood
Pearson Wood
Horse Carr Wood
Crook House Court
Hoyle Mill
A628
A633
A6195
Great Houghton
B6411
Shaw Lands
Scorah Wood
Tyers Hall Farm
Measborough Dike
River Dearne
Ardsley
Edderthorpe
A6133
Kingstone
B6100
A635
Kendray
Oaks Plantation
Stairfoot
New Hall Farm Cottage
Sandpit Lodge
Worsbrough Common
B6099
Dob Sike
Yew Plantation
Low Laithes Village
Highfield
Gilroyd
Highstone Plantation
Ward Green
Rob Royd Farm
Darley Cliff Plantation
Jarrett Royd Wood
Swaithe
River Dove
DARFIELD
B6096
M1
Swaithe Wood
Low Valley
Worsbrough Bridge
Worsbrough Dale
Lewden
River Dove
Firth Ings

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0 0.175 0.35 0.7 1.05 1.4 Kilometres

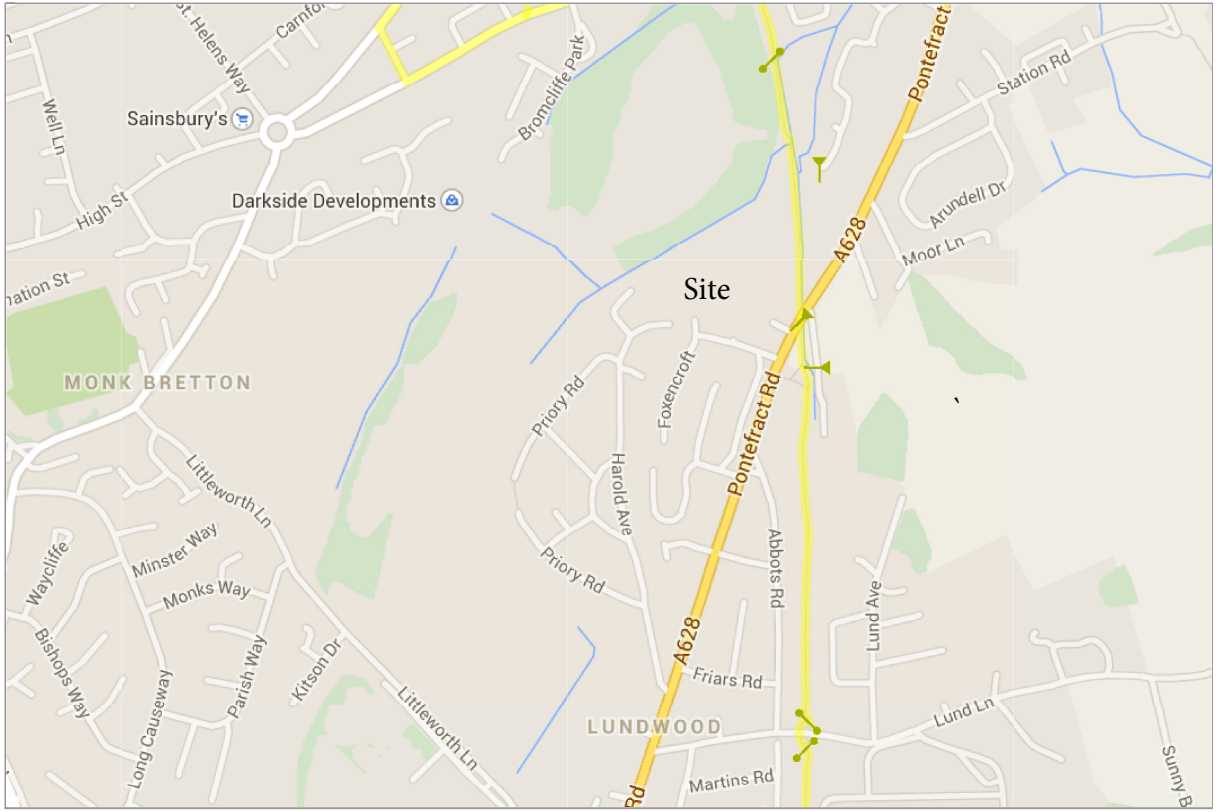
WSP

TITLE:

5KM CYCLE ISOCHRONE

FIGURE No:

FIGURE 2



TPT Cyclist - Whole Route
Route for cyclists, show in yellow

- [x] TPT Cyclist - Whole Route
  - [x] Access point

Appendix 10

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	SC	SURREY	1 days
03	SOUTH WEST		
	CW	CORNWALL	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	3 days
	SY	SOUTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days

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

Filtering Stage 2 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: 52 to 150 (units:)
Range Selected by User: 50 to 150 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 23/01/14

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

Selected survey days:

Monday	5 days
Tuesday	4 days
Wednesday	2 days
Thursday	3 days
Friday	4 days

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

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	10
Edge of Town	8

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

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

Filtering Stage 3 selection:

Use Class:

C3	18 days

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

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	4 days
125,001 to 250,000	2 days
250,001 to 500,000	3 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	14 days

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

Travel Plan:

No	18 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.

LIST OF SITES relevant to selection parameters

1 CB-03-A-04 SEMI DETACHED CUMBRIA
MOORCLOSE ROAD
SALTERBACK
WORKINGTON
Edge of Town
No Sub Category
Total Number of dwellings: 82
Survey date: FRIDAY 24/04/09 Survey Type: MANUAL

2 CH-03-A-06 SEMI-DET./BUNGALOWS CHESHIRE
CREWE ROAD

CREWE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 129
Survey date: TUESDAY 14/10/08 Survey Type: MANUAL

3 CW-03-A-02 SEMI D./DETATCHED CORNWALL
BOSVEAN GARDENS

TRURO
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 73
Survey date: TUESDAY 18/09/07 Survey Type: MANUAL

4 LN-03-A-01 MIXED HOUSES LINCOLNSHIRE
BRANT ROAD
BRACEBRIDGE
LINCOLN
Edge of Town
Residential Zone
Total Number of dwellings: 150
Survey date: TUESDAY 15/05/07 Survey Type: MANUAL

5 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD

NORWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY 22/10/12 Survey Type: MANUAL

6 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

7 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE

NORTHALLERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY 16/09/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD

RIPON
Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY 17/09/13 Survey Type: MANUAL

9 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD

BYFLEET
Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

10 SF-03-A-01 SEMI DETACHED SUFFOLK
A1156 FELIXSTOWE ROAD
RACECOURSE
IPSWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 77
Survey date: WEDNESDAY 23/05/07 Survey Type: MANUAL

11 SF-03-A-03 MIXED HOUSES SUFFOLK
BARTON HILL
FORNHAM ST MARTIN
BURY ST EDMUNDS
Edge of Town
Out of Town
Total Number of dwellings: 101
Survey date: MONDAY 15/05/06 Survey Type: MANUAL

12 SH-03-A-04 TERRACED SHROPSHIRE
ST MICHAEL'S STREET

SHREWSBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 108
Survey date: THURSDAY 11/06/09 Survey Type: MANUAL

13 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
SUTTON HILL
TELFORD
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

14 SY-03-A-01 SEMI DETACHED HOUSES SOUTH YORKSHIRE
A19 BENTLEY ROAD
BENTLEY RISE
DONCASTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 WL-03-A-01 SEMI D./TERRACED W. BASSETT WILTSHIRE
MAPLE DRIVE

WOOTTON BASSETT
Edge of Town
Residential Zone
Total Number of dwellings: 99
Survey date: MONDAY 02/10/06 Survey Type: MANUAL

16 WM-03-A-01 TERRACED WEST MIDLANDS
FOLESHILL ROAD
FOLESHILL
COVENTRY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 79
Survey date: FRIDAY 03/02/06 Survey Type: MANUAL

17 WM-03-A-03 MIXED HOUSING WEST MIDLANDS
BASELEY WAY
ROWLEYS GREEN
COVENTRY
Edge of Town
Residential Zone
Total Number of dwellings: 84
Survey date: MONDAY 24/09/07 Survey Type: MANUAL

18 WO-03-A-03 DETACHED WORCESTERSHIRE
BLAKEBROOK
BLAKEBROOK
KIDDERMINSTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 138
Survey date: FRIDAY 05/05/06 Survey Type: MANUAL

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.067	18	91	0.294	18	91	0.361
08:00 - 09:00	18	91	0.159	18	91	0.402	18	91	0.561
09:00 - 10:00	18	91	0.174	18	91	0.227	18	91	0.401
10:00 - 11:00	18	91	0.145	18	91	0.184	18	91	0.329
11:00 - 12:00	18	91	0.182	18	91	0.161	18	91	0.343
12:00 - 13:00	18	91	0.193	18	91	0.168	18	91	0.361
13:00 - 14:00	18	91	0.186	18	91	0.167	18	91	0.353
14:00 - 15:00	18	91	0.176	18	91	0.188	18	91	0.364
15:00 - 16:00	18	91	0.270	18	91	0.206	18	91	0.476
16:00 - 17:00	18	91	0.303	18	91	0.172	18	91	0.475
17:00 - 18:00	18	91	0.364	18	91	0.198	18	91	0.562
18:00 - 19:00	18	91	0.244	18	91	0.181	18	91	0.425
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.463			2.548			5.011

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL OGVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.002	18	91	0.002	18	91	0.004
08:00 - 09:00	18	91	0.002	18	91	0.002	18	91	0.004
09:00 - 10:00	18	91	0.004	18	91	0.002	18	91	0.006
10:00 - 11:00	18	91	0.003	18	91	0.003	18	91	0.006
11:00 - 12:00	18	91	0.003	18	91	0.002	18	91	0.005
12:00 - 13:00	18	91	0.003	18	91	0.002	18	91	0.005
13:00 - 14:00	18	91	0.003	18	91	0.006	18	91	0.009
14:00 - 15:00	18	91	0.001	18	91	0.002	18	91	0.003
15:00 - 16:00	18	91	0.002	18	91	0.001	18	91	0.003
16:00 - 17:00	18	91	0.001	18	91	0.001	18	91	0.002
17:00 - 18:00	18	91	0.001	18	91	0.002	18	91	0.003
18:00 - 19:00	18	91	0.001	18	91	0.000	18	91	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.026			0.025			0.051

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PSVS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.000	18	91	0.000	18	91	0.000
08:00 - 09:00	18	91	0.001	18	91	0.001	18	91	0.002
09:00 - 10:00	18	91	0.000	18	91	0.000	18	91	0.000
10:00 - 11:00	18	91	0.000	18	91	0.000	18	91	0.000
11:00 - 12:00	18	91	0.002	18	91	0.002	18	91	0.004
12:00 - 13:00	18	91	0.001	18	91	0.001	18	91	0.002
13:00 - 14:00	18	91	0.000	18	91	0.000	18	91	0.000
14:00 - 15:00	18	91	0.000	18	91	0.000	18	91	0.000
15:00 - 16:00	18	91	0.001	18	91	0.001	18	91	0.002
16:00 - 17:00	18	91	0.000	18	91	0.000	18	91	0.000
17:00 - 18:00	18	91	0.000	18	91	0.000	18	91	0.000
18:00 - 19:00	18	91	0.000	18	91	0.000	18	91	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.005			0.005			0.010

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL CYCLISTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.005	18	91	0.014	18	91	0.019
08:00 - 09:00	18	91	0.004	18	91	0.021	18	91	0.025
09:00 - 10:00	18	91	0.002	18	91	0.007	18	91	0.009
10:00 - 11:00	18	91	0.002	18	91	0.006	18	91	0.008
11:00 - 12:00	18	91	0.006	18	91	0.002	18	91	0.008
12:00 - 13:00	18	91	0.004	18	91	0.005	18	91	0.009
13:00 - 14:00	18	91	0.005	18	91	0.004	18	91	0.009
14:00 - 15:00	18	91	0.005	18	91	0.005	18	91	0.010
15:00 - 16:00	18	91	0.017	18	91	0.006	18	91	0.023
16:00 - 17:00	18	91	0.020	18	91	0.010	18	91	0.030
17:00 - 18:00	18	91	0.018	18	91	0.010	18	91	0.028
18:00 - 19:00	18	91	0.010	18	91	0.006	18	91	0.016
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.098			0.096			0.194

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.075	18	91	0.366	18	91	0.441
08:00 - 09:00	18	91	0.198	18	91	0.580	18	91	0.778
09:00 - 10:00	18	91	0.211	18	91	0.296	18	91	0.507
10:00 - 11:00	18	91	0.185	18	91	0.236	18	91	0.421
11:00 - 12:00	18	91	0.234	18	91	0.204	18	91	0.438
12:00 - 13:00	18	91	0.246	18	91	0.213	18	91	0.459
13:00 - 14:00	18	91	0.237	18	91	0.217	18	91	0.454
14:00 - 15:00	18	91	0.215	18	91	0.244	18	91	0.459
15:00 - 16:00	18	91	0.417	18	91	0.267	18	91	0.684
16:00 - 17:00	18	91	0.415	18	91	0.234	18	91	0.649
17:00 - 18:00	18	91	0.487	18	91	0.253	18	91	0.740
18:00 - 19:00	18	91	0.322	18	91	0.257	18	91	0.579
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.242			3.367			6.609

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PEDESTRIANS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.023	18	91	0.065	18	91	0.088
08:00 - 09:00	18	91	0.032	18	91	0.166	18	91	0.198
09:00 - 10:00	18	91	0.034	18	91	0.046	18	91	0.080
10:00 - 11:00	18	91	0.038	18	91	0.040	18	91	0.078
11:00 - 12:00	18	91	0.037	18	91	0.036	18	91	0.073
12:00 - 13:00	18	91	0.037	18	91	0.032	18	91	0.069
13:00 - 14:00	18	91	0.037	18	91	0.048	18	91	0.085
14:00 - 15:00	18	91	0.049	18	91	0.051	18	91	0.100
15:00 - 16:00	18	91	0.143	18	91	0.081	18	91	0.224
16:00 - 17:00	18	91	0.099	18	91	0.057	18	91	0.156
17:00 - 18:00	18	91	0.076	18	91	0.037	18	91	0.113
18:00 - 19:00	18	91	0.048	18	91	0.038	18	91	0.086
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.653			0.697			1.350

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL BUS/TRAM PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.001	18	91	0.006	18	91	0.007
08:00 - 09:00	18	91	0.010	18	91	0.016	18	91	0.026
09:00 - 10:00	18	91	0.004	18	91	0.004	18	91	0.008
10:00 - 11:00	18	91	0.002	18	91	0.006	18	91	0.008
11:00 - 12:00	18	91	0.004	18	91	0.006	18	91	0.010
12:00 - 13:00	18	91	0.002	18	91	0.005	18	91	0.007
13:00 - 14:00	18	91	0.002	18	91	0.001	18	91	0.003
14:00 - 15:00	18	91	0.003	18	91	0.004	18	91	0.007
15:00 - 16:00	18	91	0.007	18	91	0.012	18	91	0.019
16:00 - 17:00	18	91	0.006	18	91	0.002	18	91	0.008
17:00 - 18:00	18	91	0.014	18	91	0.002	18	91	0.016
18:00 - 19:00	18	91	0.007	18	91	0.002	18	91	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.062			0.066			0.128

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TRAIN PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.000	18	91	0.002	18	91	0.002
08:00 - 09:00	18	91	0.000	18	91	0.002	18	91	0.002
09:00 - 10:00	18	91	0.000	18	91	0.001	18	91	0.001
10:00 - 11:00	18	91	0.000	18	91	0.001	18	91	0.001
11:00 - 12:00	18	91	0.000	18	91	0.000	18	91	0.000
12:00 - 13:00	18	91	0.000	18	91	0.000	18	91	0.000
13:00 - 14:00	18	91	0.000	18	91	0.000	18	91	0.000
14:00 - 15:00	18	91	0.000	18	91	0.000	18	91	0.000
15:00 - 16:00	18	91	0.001	18	91	0.002	18	91	0.003
16:00 - 17:00	18	91	0.000	18	91	0.000	18	91	0.000
17:00 - 18:00	18	91	0.002	18	91	0.000	18	91	0.002
18:00 - 19:00	18	91	0.003	18	91	0.000	18	91	0.003
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.008			0.014

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL COACH PASSENGERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.000	18	91	0.000	18	91	0.000
08:00 - 09:00	18	91	0.001	18	91	0.002	18	91	0.003
09:00 - 10:00	18	91	0.000	18	91	0.000	18	91	0.000
10:00 - 11:00	18	91	0.000	18	91	0.000	18	91	0.000
11:00 - 12:00	18	91	0.002	18	91	0.001	18	91	0.003
12:00 - 13:00	18	91	0.000	18	91	0.003	18	91	0.003
13:00 - 14:00	18	91	0.000	18	91	0.000	18	91	0.000
14:00 - 15:00	18	91	0.000	18	91	0.000	18	91	0.000
15:00 - 16:00	18	91	0.003	18	91	0.000	18	91	0.003
16:00 - 17:00	18	91	0.000	18	91	0.000	18	91	0.000
17:00 - 18:00	18	91	0.000	18	91	0.000	18	91	0.000
18:00 - 19:00	18	91	0.000	18	91	0.000	18	91	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.001	18	91	0.008	18	91	0.009
08:00 - 09:00	18	91	0.011	18	91	0.020	18	91	0.031
09:00 - 10:00	18	91	0.004	18	91	0.005	18	91	0.009
10:00 - 11:00	18	91	0.002	18	91	0.007	18	91	0.009
11:00 - 12:00	18	91	0.007	18	91	0.007	18	91	0.014
12:00 - 13:00	18	91	0.002	18	91	0.008	18	91	0.010
13:00 - 14:00	18	91	0.002	18	91	0.001	18	91	0.003
14:00 - 15:00	18	91	0.003	18	91	0.004	18	91	0.007
15:00 - 16:00	18	91	0.011	18	91	0.013	18	91	0.024
16:00 - 17:00	18	91	0.006	18	91	0.002	18	91	0.008
17:00 - 18:00	18	91	0.016	18	91	0.002	18	91	0.018
18:00 - 19:00	18	91	0.010	18	91	0.002	18	91	0.012
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.075			0.079			0.154

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	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	18	91	0.104	18	91	0.453	18	91	0.557
08:00 - 09:00	18	91	0.245	18	91	0.787	18	91	1.032
09:00 - 10:00	18	91	0.251	18	91	0.354	18	91	0.605
10:00 - 11:00	18	91	0.227	18	91	0.289	18	91	0.516
11:00 - 12:00	18	91	0.284	18	91	0.250	18	91	0.534
12:00 - 13:00	18	91	0.289	18	91	0.258	18	91	0.547
13:00 - 14:00	18	91	0.282	18	91	0.270	18	91	0.552
14:00 - 15:00	18	91	0.272	18	91	0.303	18	91	0.575
15:00 - 16:00	18	91	0.588	18	91	0.368	18	91	0.956
16:00 - 17:00	18	91	0.539	18	91	0.303	18	91	0.842
17:00 - 18:00	18	91	0.598	18	91	0.303	18	91	0.901
18:00 - 19:00	18	91	0.391	18	91	0.302	18	91	0.693
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.070			4.240			8.310

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.

Parameter summary

Trip rate parameter range selected:	52 - 150 (units:)
Survey date date range:	01/01/06 - 23/01/14
Number of weekdays (Monday-Friday):	18
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	2

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

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	SC	SURREY	1 days
03	SOUTH WEST		
	CW	CORNWALL	1 days
	DC	DORSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	3 days
	SY	SOUTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days

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

Filtering Stage 2 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: 51 to 150 (units:)
Range Selected by User: 50 to 150 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 23/01/14

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

Selected survey days:

Monday	5 days
Tuesday	4 days
Wednesday	3 days
Thursday	3 days
Friday	4 days

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

Selected survey types:

Manual count	19 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11
Edge of Town	8

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	14
Out of Town	1
No Sub Category	4

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.

Filtering Stage 3 selection:

Use Class:

C3	19 days

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

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	7 days
10,001 to 15,000	1 days
15,001 to 20,000	4 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	4 days
125,001 to 250,000	2 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	15 days

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

Travel Plan:

No	19 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.

LIST OF SITES relevant to selection parameters

1 CB-03-A-04 SEMI DETACHED CUMBRIA
MOORCLOSE ROAD
SALTERBACK
WORKINGTON
Edge of Town
No Sub Category
Total Number of dwellings: 82
Survey date: FRIDAY 24/04/09 Survey Type: MANUAL

2 CH-03-A-06 SEMI-DET./BUNGALOWS CHESHIRE
CREWE ROAD

CREWE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 129
Survey date: TUESDAY 14/10/08 Survey Type: MANUAL

3 CW-03-A-02 SEMI D./DETATCHED CORNWALL
BOSVEAN GARDENS

TRURO
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 73
Survey date: TUESDAY 18/09/07 Survey Type: MANUAL

4 DC-03-A-01 DETACHED DORSET
ISAACS CLOSE

POOLE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: WEDNESDAY 16/07/08 Survey Type: MANUAL

5 LN-03-A-01 MIXED HOUSES LINCOLNSHIRE
BRANT ROAD
BRACEBRIDGE
LINCOLN
Edge of Town
Residential Zone
Total Number of dwellings: 150
Survey date: TUESDAY 15/05/07 Survey Type: MANUAL

6 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD

NORWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY 22/10/12 Survey Type: MANUAL

7 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE

NORTHALLERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY 16/09/13 Survey Type: MANUAL

9 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD

RIPON
Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY 17/09/13 Survey Type: MANUAL

10 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD

BYFLEET
Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

11 SF-03-A-01 SEMI DETACHED SUFFOLK
A1156 FELIXSTOWE ROAD
RACECOURSE
IPSWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 77
Survey date: WEDNESDAY 23/05/07 Survey Type: MANUAL

12 SF-03-A-03 MIXED HOUSES SUFFOLK
BARTON HILL
FORNHAM ST MARTIN
BURY ST EDMUNDS
Edge of Town
Out of Town
Total Number of dwellings: 101
Survey date: MONDAY 15/05/06 Survey Type: MANUAL

13 SH-03-A-04 TERRACED SHROPSHIRE
ST MICHAEL'S STREET

SHREWSBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 108
Survey date: THURSDAY 11/06/09 Survey Type: MANUAL

14 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
SUTTON HILL
TELFORD
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 SY-03-A-01 SEMI DETACHED HOUSES SOUTH YORKSHIRE
A19 BENTLEY ROAD
BENTLEY RISE
DONCASTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL

16 WL-03-A-01 SEMI D./TERRACED W. BASSETT WILTSHIRE
MAPLE DRIVE

WOOTTON BASSETT
Edge of Town
Residential Zone
Total Number of dwellings: 99
Survey date: MONDAY 02/10/06 Survey Type: MANUAL

17 WM-03-A-01 TERRACED WEST MIDLANDS
FOLESHILL ROAD
FOLESHILL
COVENTRY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 79
Survey date: FRIDAY 03/02/06 Survey Type: MANUAL

18 WM-03-A-03 MIXED HOUSING WEST MIDLANDS
BASELEY WAY
ROWLEYS GREEN
COVENTRY
Edge of Town
Residential Zone
Total Number of dwellings: 84
Survey date: MONDAY 24/09/07 Survey Type: MANUAL

19 WO-03-A-03 DETACHED WORCESTERSHIRE
BLAKEBROOK
BLAKEBROOK
KIDDERMINSTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 138
Survey date: FRIDAY 05/05/06 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.

WSP STREET NAME TOWN/CITY Licence No: 100304

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Ranking Type: TOTALS Time Range: 08:00-09:00
WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS and may be misleading.
15th Percentile = No. 16 CW-03-A-02 Tot: 0.425
85th Percentile = No. 4 NY-03-A-10 Tot: 0.704

Median Values		Mean Values	
Arrivals:	0.130	Arrivals:	0.151
Departures:	0.370	Departures:	0.393
Totals:	0.500	Totals:	0.544

Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Travel Plan
								Arrivals	Departures	Totals	
1	WO-03-A-03	DETACHED	KIDDERMINSTER	WORCESTERSHIRE	138	Fri	05/05/06	0.203	0.543	0.746	
2	SH-03-A-04	TERRACED	SHREWSBURY	SHROPSHIRE	108	Thu	11/06/09	0.287	0.454	0.741	
3	WM-03-A-03	MIXED HOUSING	COVENTRY	WEST MIDLANDS	84	Mon	24/09/07	0.321	0.405	0.726	
4	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.183	0.521	0.704	
5	SF-03-A-03	MIXED HOUSES	BURY ST EDMUNDS	SUFFOLK	101	Mon	15/05/06	0.109	0.554	0.663	
6	LN-03-A-01	MIXED HOUSES	LINCOLN	LINCOLNSHIRE	150	Tue	15/05/07	0.187	0.440	0.627	
7	WM-03-A-01	TERRACED	COVENTRY	WEST MIDLANDS	79	Fri	03/02/06	0.152	0.418	0.570	
8	CB-03-A-04	SEMI DETACHED	WORKINGTON	CUMBRIA	82	Fri	24/04/09	0.183	0.366	0.549	
9	SF-03-A-01	SEMI DETACHED	IPSWICH	SUFFOLK	77	Wed	23/05/07	0.104	0.416	0.520	
10	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.130	0.370	0.500	
11	NY-03-A-06	BUNGALOWS & SE	BOROUGHBRIDGE	NORTH YORKSHIRE	115	Fri	14/10/11	0.096	0.400	0.496	
12	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.141	0.352	0.493	
13	DC-03-A-01	DETACHED	POOLE	DORSET	51	Wed	16/07/08	0.098	0.373	0.471	
14	NF-03-A-02	HOUSES & FLATS	NORWICH	NORFOLK	98	Mon	22/10/12	0.122	0.347	0.469	
15	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.056	0.389	0.445	
16	CW-03-A-02	SEMI D./DETATC	TRURO	CORNWALL	73	Tue	18/09/07	0.096	0.329	0.425	
17	WL-03-A-01	SEMI D./TERRAC	WOOTTON BASSETT	WILTSHIRE	99	Mon	02/10/06	0.071	0.333	0.404	
18	CH-03-A-06	SEMI-DET./BUNG	CREWE	CHESHIRE	129	Tue	14/10/08	0.163	0.240	0.403	
19	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	NORTH YORKSHIRE	52	Mon	16/09/13	0.173	0.212	0.385	

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

02	SOUTH EAST		
	SC	SURREY	1 days
03	SOUTH WEST		
	CW	CORNWALL	1 days
	DC	DORSET	1 days
	WL	WILTSHIRE	1 days
04	EAST ANGLIA		
	NF	NORFOLK	1 days
	SF	SUFFOLK	2 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	1 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	2 days
	WM	WEST MIDLANDS	2 days
	WO	WORCESTERSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NY	NORTH YORKSHIRE	3 days
	SY	SOUTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	1 days
09	NORTH		
	CB	CUMBRIA	1 days

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

Filtering Stage 2 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: 51 to 150 (units:)
Range Selected by User: 50 to 150 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/06 to 23/01/14

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

Selected survey days:

Monday	5 days
Tuesday	4 days
Wednesday	3 days
Thursday	3 days
Friday	4 days

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

Selected survey types:

Manual count	19 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	11
Edge of Town	8

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	14
Out of Town	1
No Sub Category	4

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.

Filtering Stage 3 selection:

Use Class:

C3	19 days

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

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	7 days
10,001 to 15,000	1 days
15,001 to 20,000	4 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	3 days
50,001 to 75,000	1 days
75,001 to 100,000	4 days
100,001 to 125,000	4 days
125,001 to 250,000	2 days
250,001 to 500,000	4 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	3 days
1.1 to 1.5	15 days

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

Travel Plan:

No	19 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.

LIST OF SITES relevant to selection parameters

1 CB-03-A-04 SEMI DETACHED CUMBRIA
MOORCLOSE ROAD
SALTERBACK
WORKINGTON
Edge of Town
No Sub Category
Total Number of dwellings: 82
Survey date: FRIDAY 24/04/09 Survey Type: MANUAL

2 CH-03-A-06 SEMI-DET./BUNGALOWS CHESHIRE
CREWE ROAD

CREWE
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 129
Survey date: TUESDAY 14/10/08 Survey Type: MANUAL

3 CW-03-A-02 SEMI D./DETATCHED CORNWALL
BOSVEAN GARDENS

TRURO
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 73
Survey date: TUESDAY 18/09/07 Survey Type: MANUAL

4 DC-03-A-01 DETACHED DORSET
ISAACS CLOSE

POOLE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 51
Survey date: WEDNESDAY 16/07/08 Survey Type: MANUAL

5 LN-03-A-01 MIXED HOUSES LINCOLNSHIRE
BRANT ROAD
BRACEBRIDGE
LINCOLN
Edge of Town
Residential Zone
Total Number of dwellings: 150
Survey date: TUESDAY 15/05/07 Survey Type: MANUAL

6 NF-03-A-02 HOUSES & FLATS NORFOLK
DEREHAM ROAD

NORWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 98
Survey date: MONDAY 22/10/12 Survey Type: MANUAL

7 NY-03-A-06 BUNGALOWS & SEMI DET. NORTH YORKSHIRE
HORSEFAIR

BOROUGHBRIDGE
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 115
Survey date: FRIDAY 14/10/11 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8 NY-03-A-09 MIXED HOUSING NORTH YORKSHIRE
GRAMMAR SCHOOL LANE

NORTHALLERTON
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 52
Survey date: MONDAY 16/09/13 Survey Type: MANUAL

9 NY-03-A-10 HOUSES AND FLATS NORTH YORKSHIRE
BOROUGHBRIDGE ROAD

RIPON
Edge of Town
No Sub Category
Total Number of dwellings: 71
Survey date: TUESDAY 17/09/13 Survey Type: MANUAL

10 SC-03-A-04 DETACHED & TERRACED SURREY
HIGH ROAD

BYFLEET
Edge of Town
Residential Zone
Total Number of dwellings: 71
Survey date: THURSDAY 23/01/14 Survey Type: MANUAL

11 SF-03-A-01 SEMI DETACHED SUFFOLK
A1156 FELIXSTOWE ROAD
RACECOURSE
IPSWICH
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 77
Survey date: WEDNESDAY 23/05/07 Survey Type: MANUAL

12 SF-03-A-03 MIXED HOUSES SUFFOLK
BARTON HILL
FORNHAM ST MARTIN
BURY ST EDMUNDS
Edge of Town
Out of Town
Total Number of dwellings: 101
Survey date: MONDAY 15/05/06 Survey Type: MANUAL

13 SH-03-A-04 TERRACED SHROPSHIRE
ST MICHAEL'S STREET

SHREWSBURY
Suburban Area (PPS6 Out of Centre)
No Sub Category
Total Number of dwellings: 108
Survey date: THURSDAY 11/06/09 Survey Type: MANUAL

14 SH-03-A-05 SEMI-DETACHED/TERRACED SHROPSHIRE
SANDCROFT
SUTTON HILL
TELFORD
Edge of Town
Residential Zone
Total Number of dwellings: 54
Survey date: THURSDAY 24/10/13 Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15 SY-03-A-01 SEMI DETACHED HOUSES SOUTH YORKSHIRE
A19 BENTLEY ROAD
BENTLEY RISE
DONCASTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 54
Survey date: WEDNESDAY 18/09/13 Survey Type: MANUAL

16 WL-03-A-01 SEMI D./TERRACED W. BASSETT WILTSHIRE
MAPLE DRIVE

WOOTTON BASSETT
Edge of Town
Residential Zone
Total Number of dwellings: 99
Survey date: MONDAY 02/10/06 Survey Type: MANUAL

17 WM-03-A-01 TERRACED WEST MIDLANDS
FOLESHILL ROAD
FOLESHILL
COVENTRY
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 79
Survey date: FRIDAY 03/02/06 Survey Type: MANUAL

18 WM-03-A-03 MIXED HOUSING WEST MIDLANDS
BASELEY WAY
ROWLEYS GREEN
COVENTRY
Edge of Town
Residential Zone
Total Number of dwellings: 84
Survey date: MONDAY 24/09/07 Survey Type: MANUAL

19 WO-03-A-03 DETACHED WORCESTERSHIRE
BLAKEBROOK
BLAKEBROOK
KIDDERMINSTER
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total Number of dwellings: 138
Survey date: FRIDAY 05/05/06 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.

WSP STREET NAME TOWN/CITY Licence No: 100304

RANK ORDER for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Ranking Type: TOTALS Time Range: 17:00-18:00
WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS and may be misleading.
15th Percentile = No. 16 NF-03-A-02 Tot: 0.378
85th Percentile = No. 4 SH-03-A-04 Tot: 0.759

Median Values		Mean Values	
Arrivals:	0.342	Arrivals:	0.364
Departures:	0.203	Departures:	0.196
Totals:	0.545	Totals:	0.560

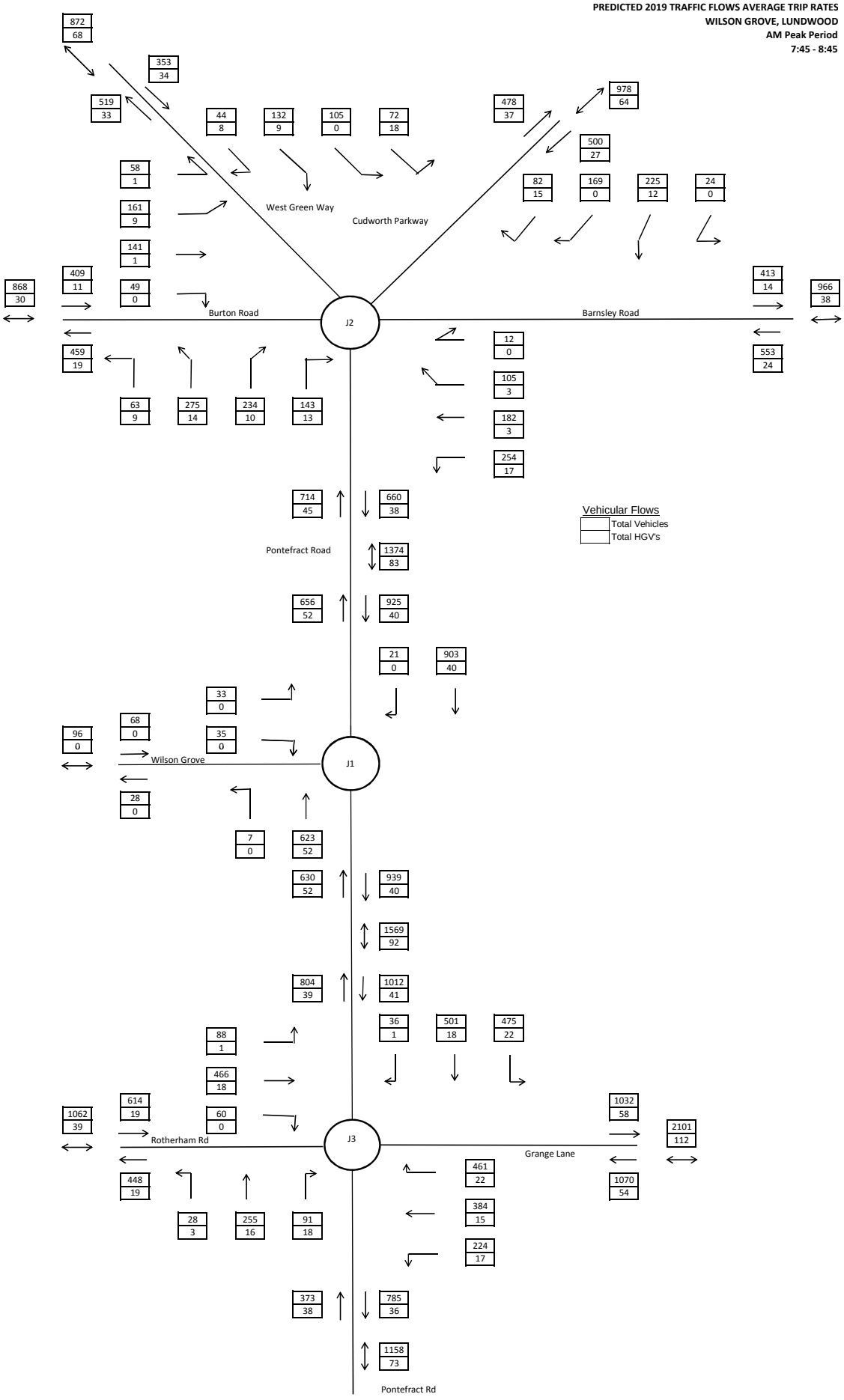
Rank	Site-Ref	Description	Town/City	Area	DWELLS	Day	Date	Trip Rate (Sorted by Totals)			Travel Plan
								Arrivals	Departures	Totals	
1	WO-03-A-03	DETACHED	KIDDERMINSTER	WORCESTERSHIRE	138	Fri	05/05/06	0.558	0.319	0.877	
2	DC-03-A-01	DETACHED	POOLE	DORSET	51	Wed	16/07/08	0.510	0.333	0.843	
3	WM-03-A-03	MIXED HOUSING	COVENTRY	WEST MIDLANDS	84	Mon	24/09/07	0.405	0.369	0.774	
4	SH-03-A-04	TERRACED	SHREWSBURY	SHROPSHIRE	108	Thu	11/06/09	0.463	0.296	0.759	
5	SF-03-A-03	MIXED HOUSES	BURY ST EDMUNDS	SUFFOLK	101	Mon	15/05/06	0.525	0.228	0.753	
6	CW-03-A-02	SEMI D./DETATC	TRURO	CORNWALL	73	Tue	18/09/07	0.425	0.219	0.644	
7	LN-03-A-01	MIXED HOUSES	LINCOLN	LINCOLNSHIRE	150	Tue	15/05/07	0.413	0.213	0.626	
8	NY-03-A-10	HOUSES AND FLA	RIPON	NORTH YORKSHIRE	71	Tue	17/09/13	0.479	0.099	0.578	
9	CB-03-A-04	SEMI DETACHED	WORKINGTON	CUMBRIA	82	Fri	24/04/09	0.354	0.207	0.561	
10	WM-03-A-01	TERRACED	COVENTRY	WEST MIDLANDS	79	Fri	03/02/06	0.342	0.203	0.545	
11	WL-03-A-01	SEMI D./TERRAC	WOOTTON BASSETT	WILTSHIRE	99	Mon	02/10/06	0.374	0.141	0.515	
12	NY-03-A-06	BUNGALOWS & SE	BOROUGHBRIDGE	NORTH YORKSHIRE	115	Fri	14/10/11	0.296	0.174	0.470	
13	SC-03-A-04	DETACHED & TER	BYFLEET	SURREY	71	Thu	23/01/14	0.366	0.099	0.465	
14	NY-03-A-09	MIXED HOUSING	NORTHALLERTON	NORTH YORKSHIRE	52	Mon	16/09/13	0.269	0.192	0.461	
15	SF-03-A-01	SEMI DETACHED	IPSWICH	SUFFOLK	77	Wed	23/05/07	0.247	0.169	0.416	
16	NF-03-A-02	HOUSES & FLATS	NORWICH	NORFOLK	98	Mon	22/10/12	0.235	0.143	0.378	
17	SH-03-A-05	SEMI-DETACHED/	TELFORD	SHROPSHIRE	54	Thu	24/10/13	0.241	0.130	0.371	
18	SY-03-A-01	SEMI DETACHED	DONCASTER	SOUTH YORKSHIRE	54	Wed	18/09/13	0.278	0.056	0.334	
19	CH-03-A-06	SEMI-DET./BUNG	CREWE	CHESHIRE	129	Tue	14/10/08	0.132	0.140	0.272	

This section displays actual (not average) trip rates for each of the survey days in the selected set, and ranks them in order of relative trip rate intensity, for a given time period (or peak period irrespective of time) selected by the user. The count type and direction are both displayed just above the table, along with the rows within the table representing the 85th and 15th percentile trip rate figures (highlighted in bold within the table itself).

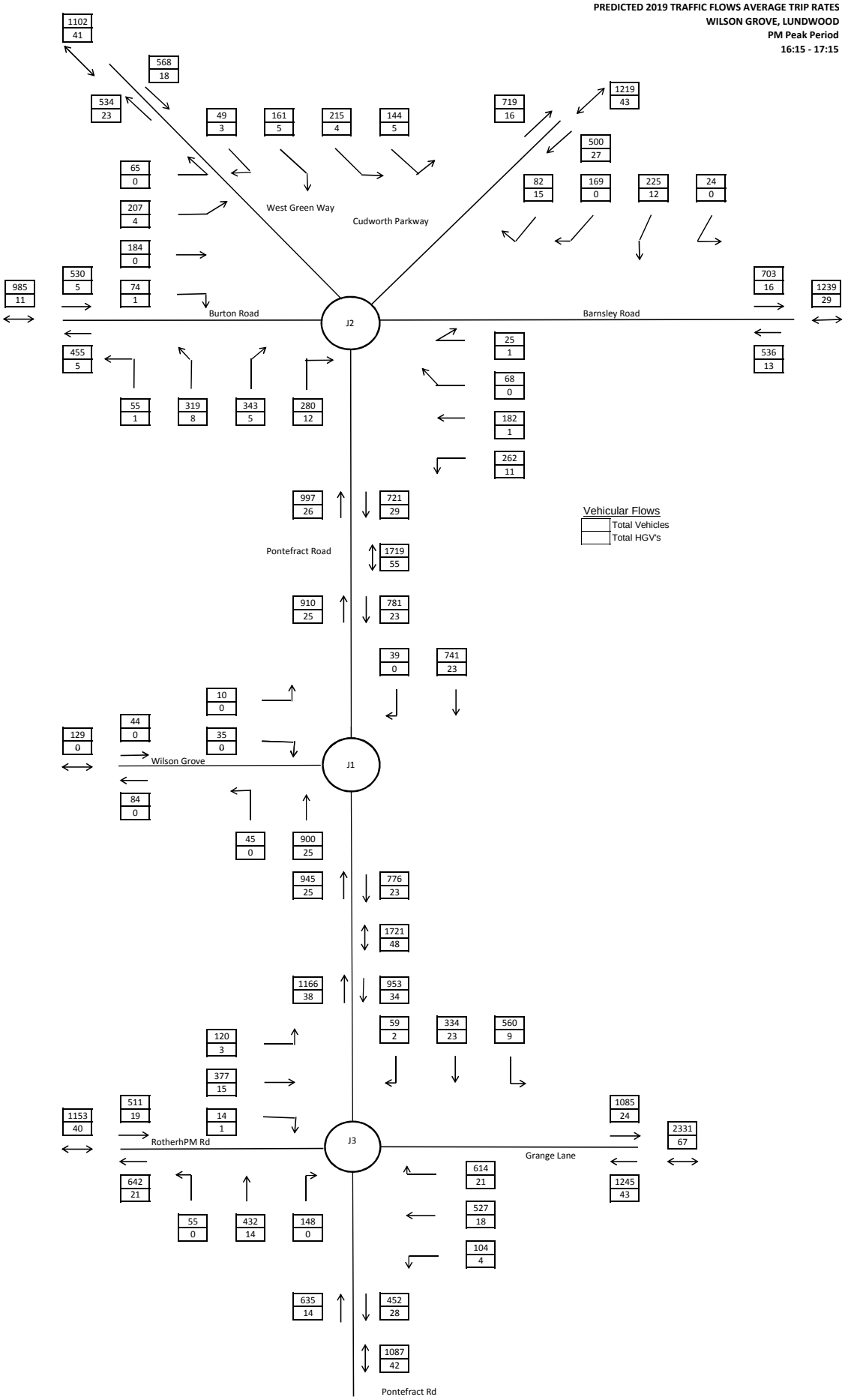
The table itself displays details of each individual survey, alongside arrivals, departures and totals trip rates, sorted by whichever of the three directional options has been chosen by the user. As with the preceeding trip rate calculation results table, the trip rates shown are per the calculation factor (e.g. per 100m2 GFA, per employee, per hectare, etc). Note that if the peak period option has been selected (as opposed to a specific chosen time period), the peak period for each individual survey day in the table is also displayed.

Appendix 11

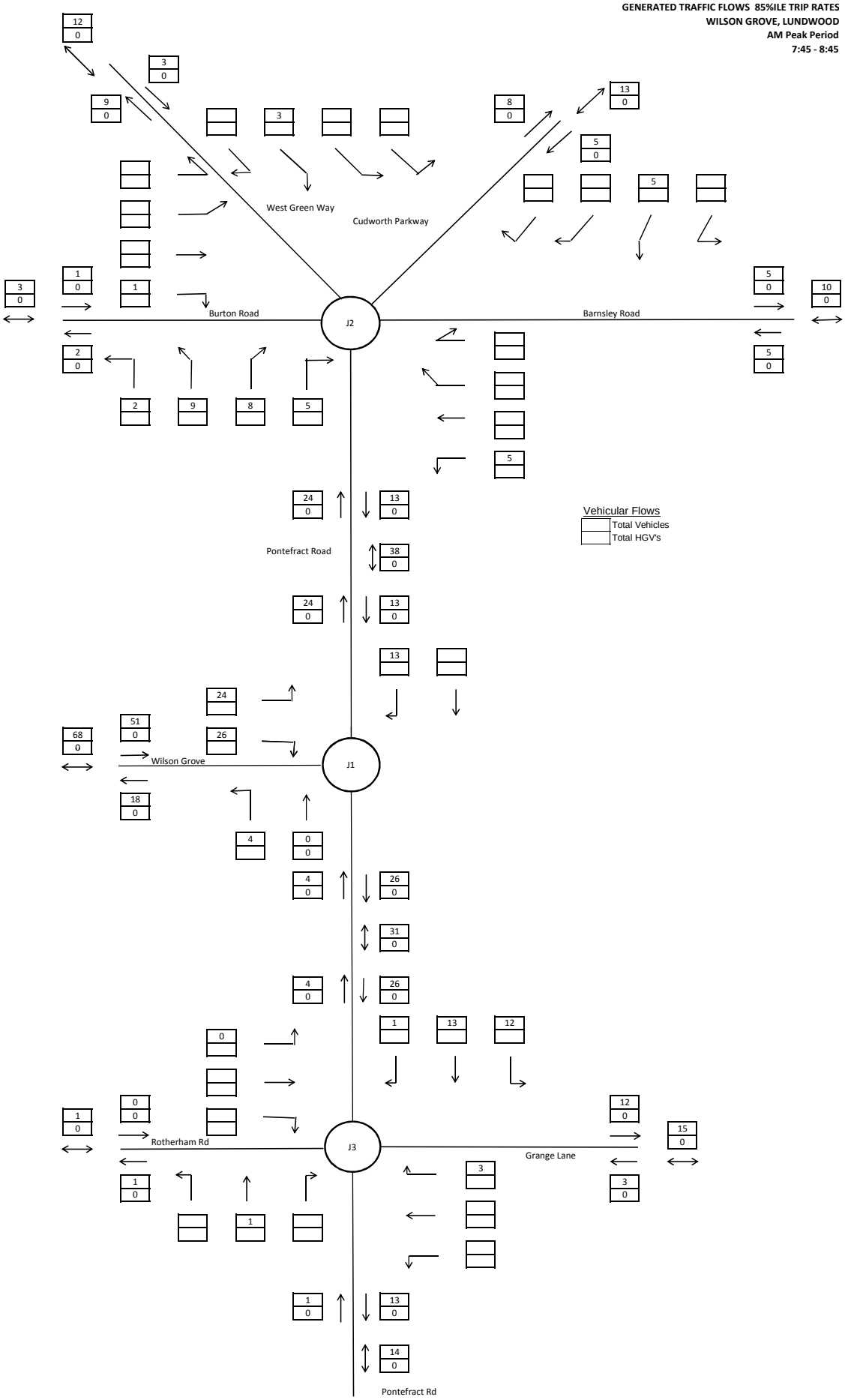
PREDICTED 2019 TRAFFIC FLOWS AVERAGE TRIP RATES
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45



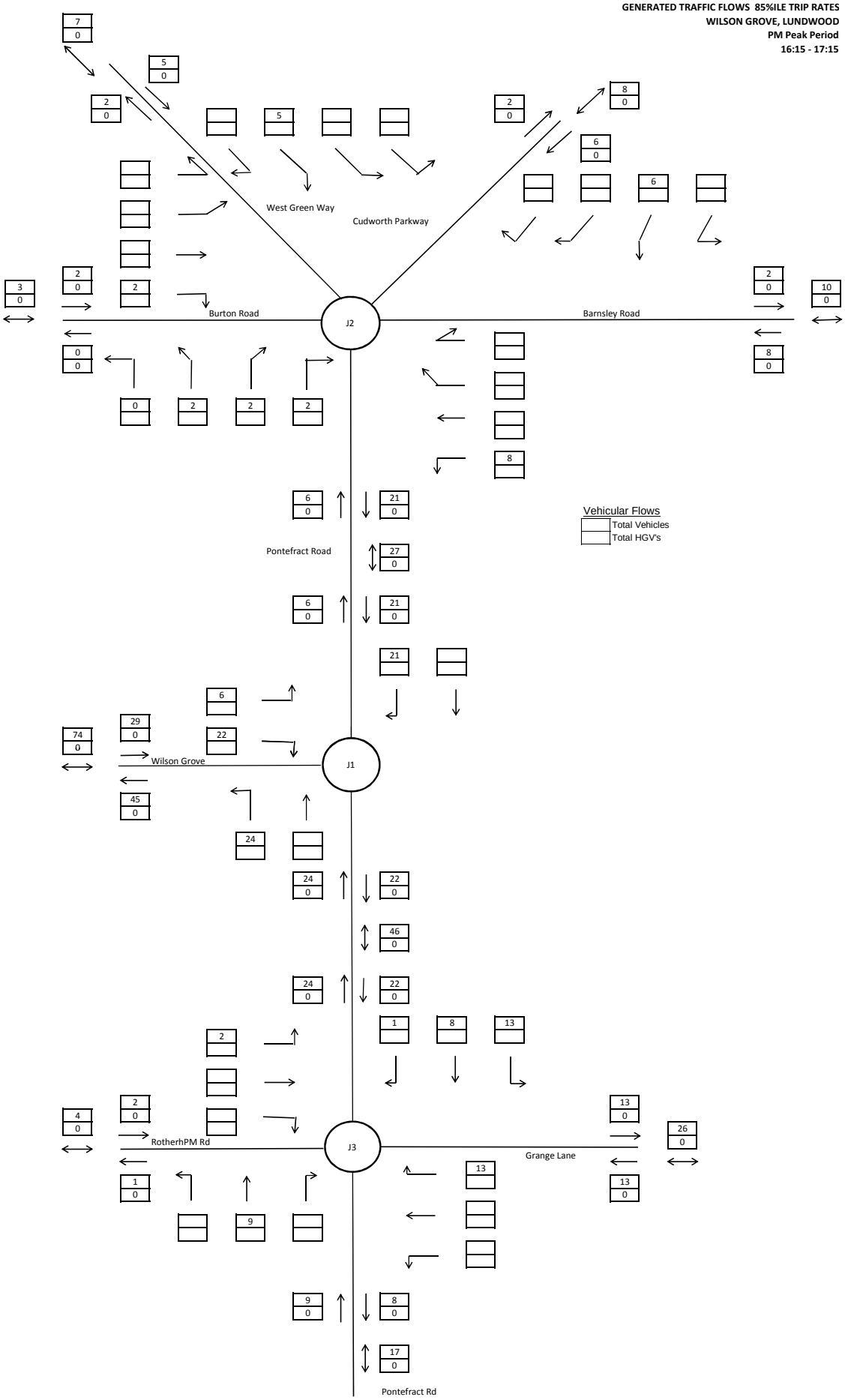
PREDICTED 2019 TRAFFIC FLOWS AVERAGE TRIP RATES
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15



GENERATED TRAFFIC FLOWS 85%ILE TRIP RATES
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45

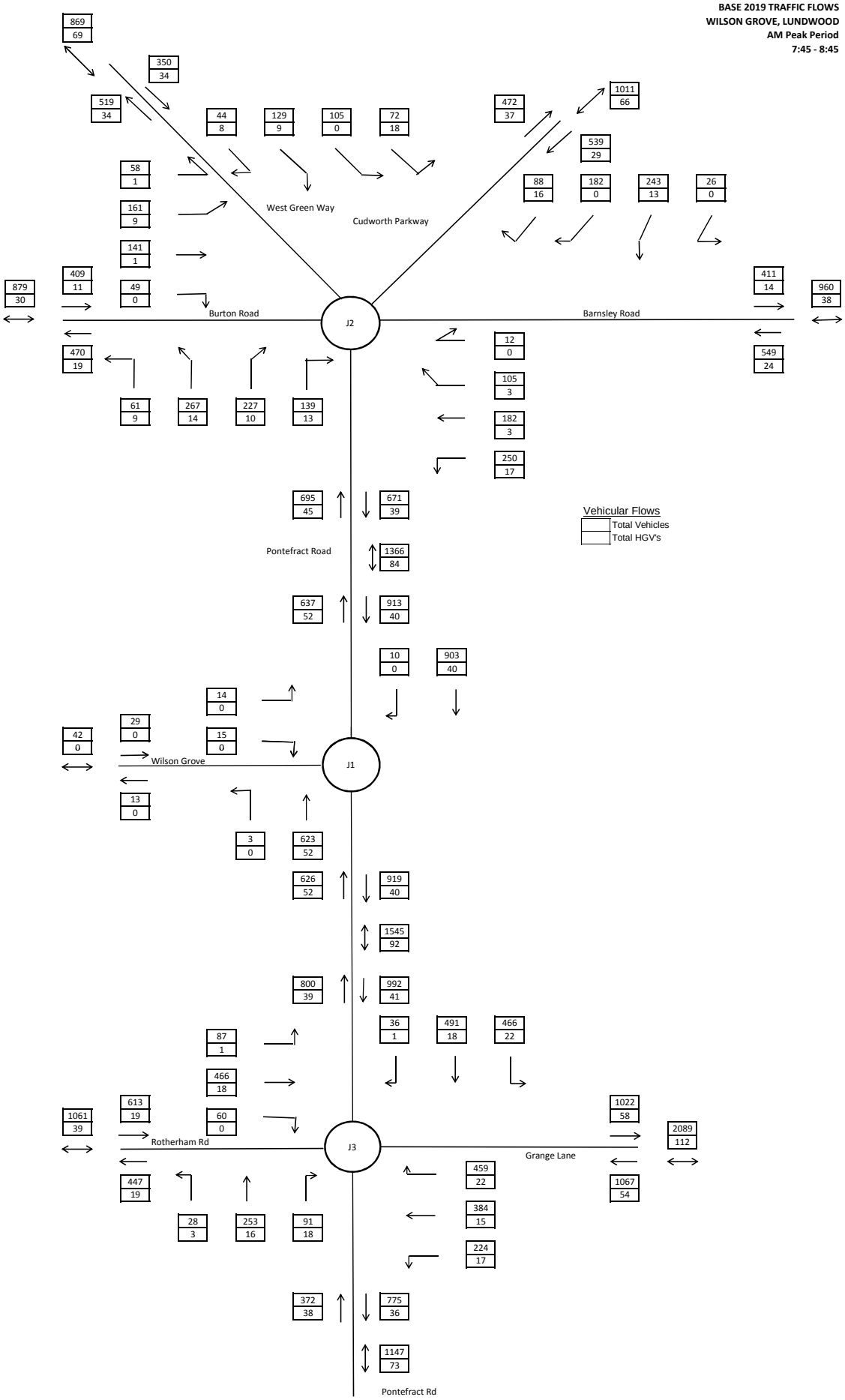


GENERATED TRAFFIC FLOWS 85%ILE TRIP RATES
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15

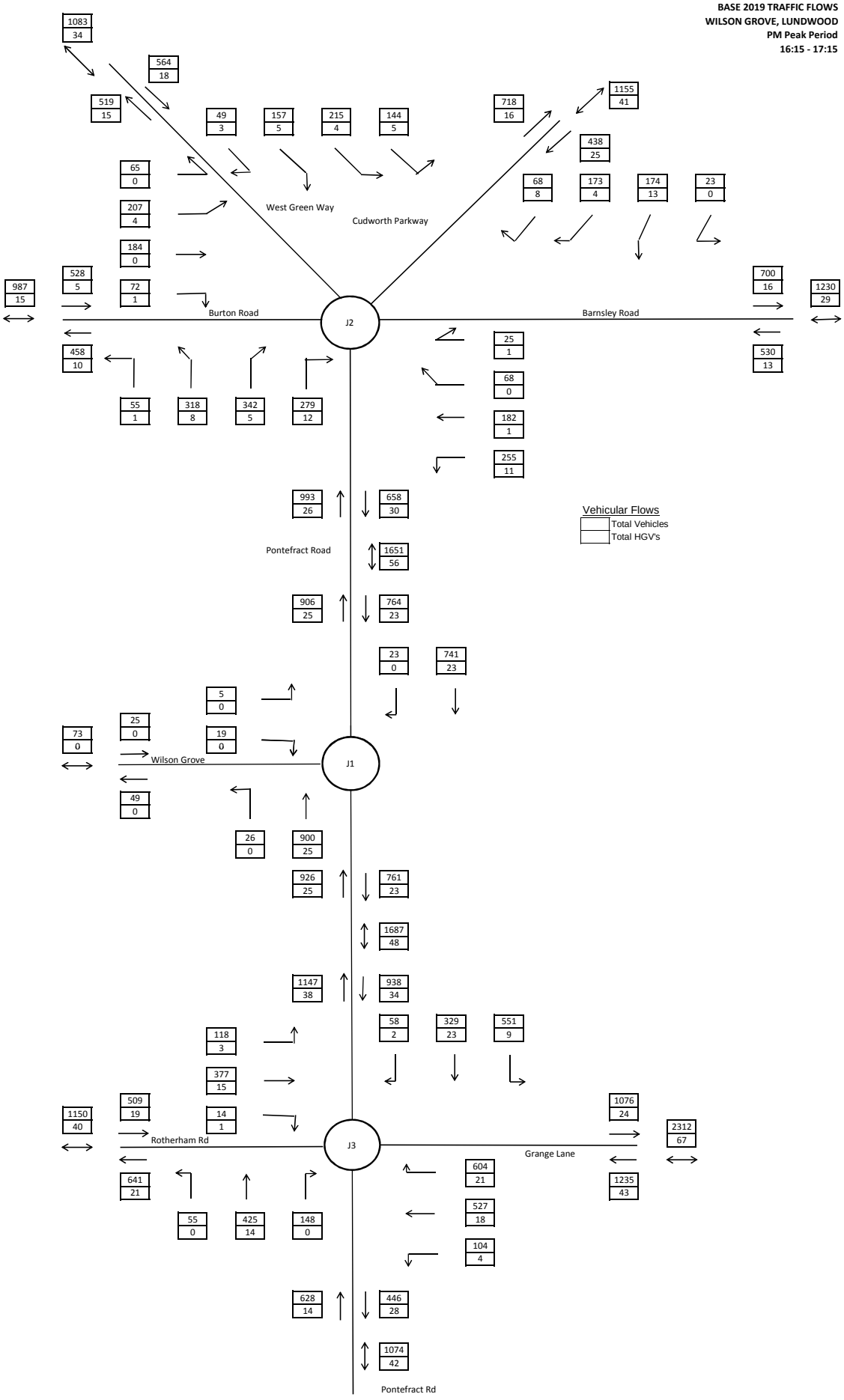


Appendix 12

BASE 2019 TRAFFIC FLOWS
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45



BASE 2019 TRAFFIC FLOWS
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15



Appendix 13

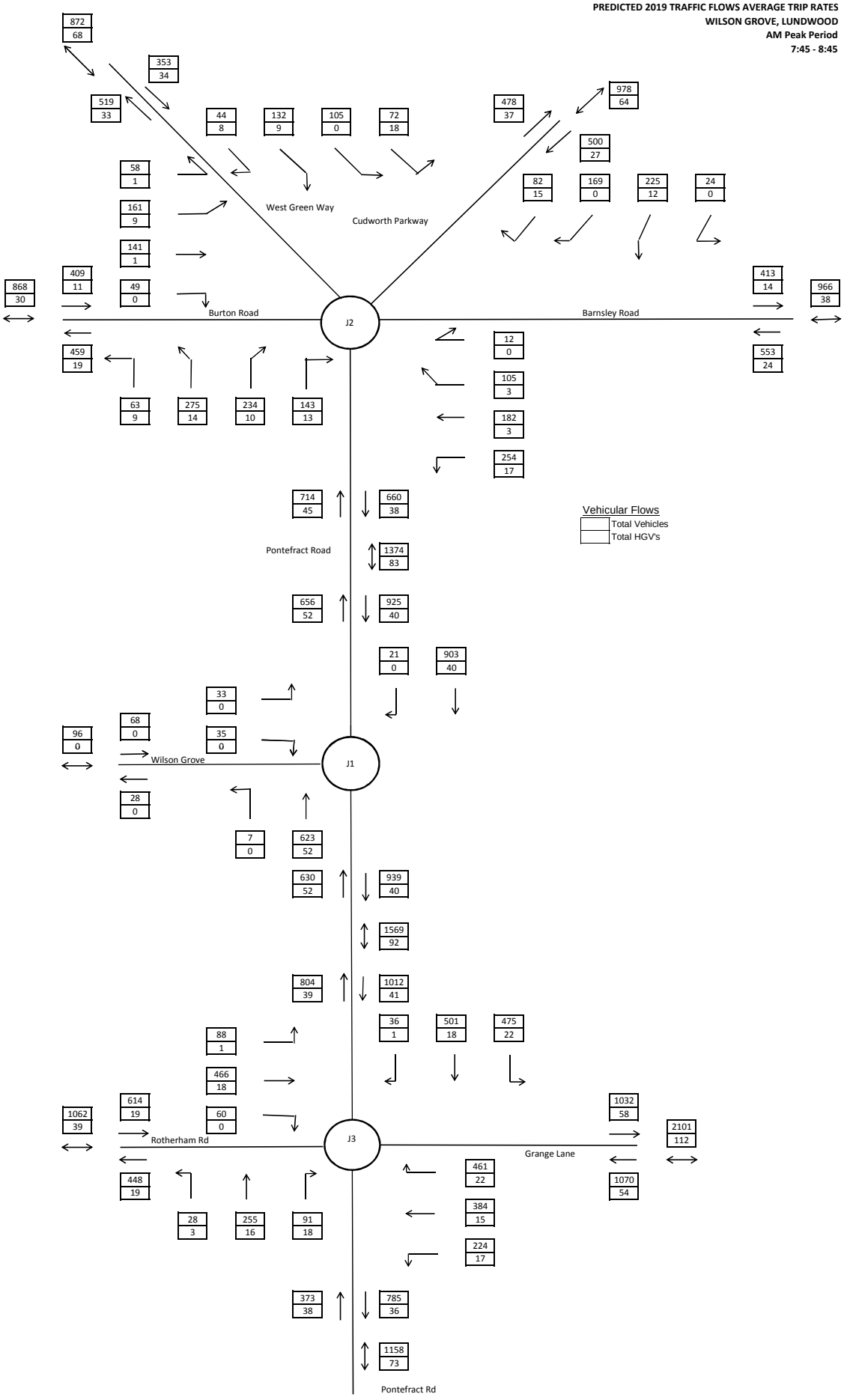
Growth Factors

2014 - 2019

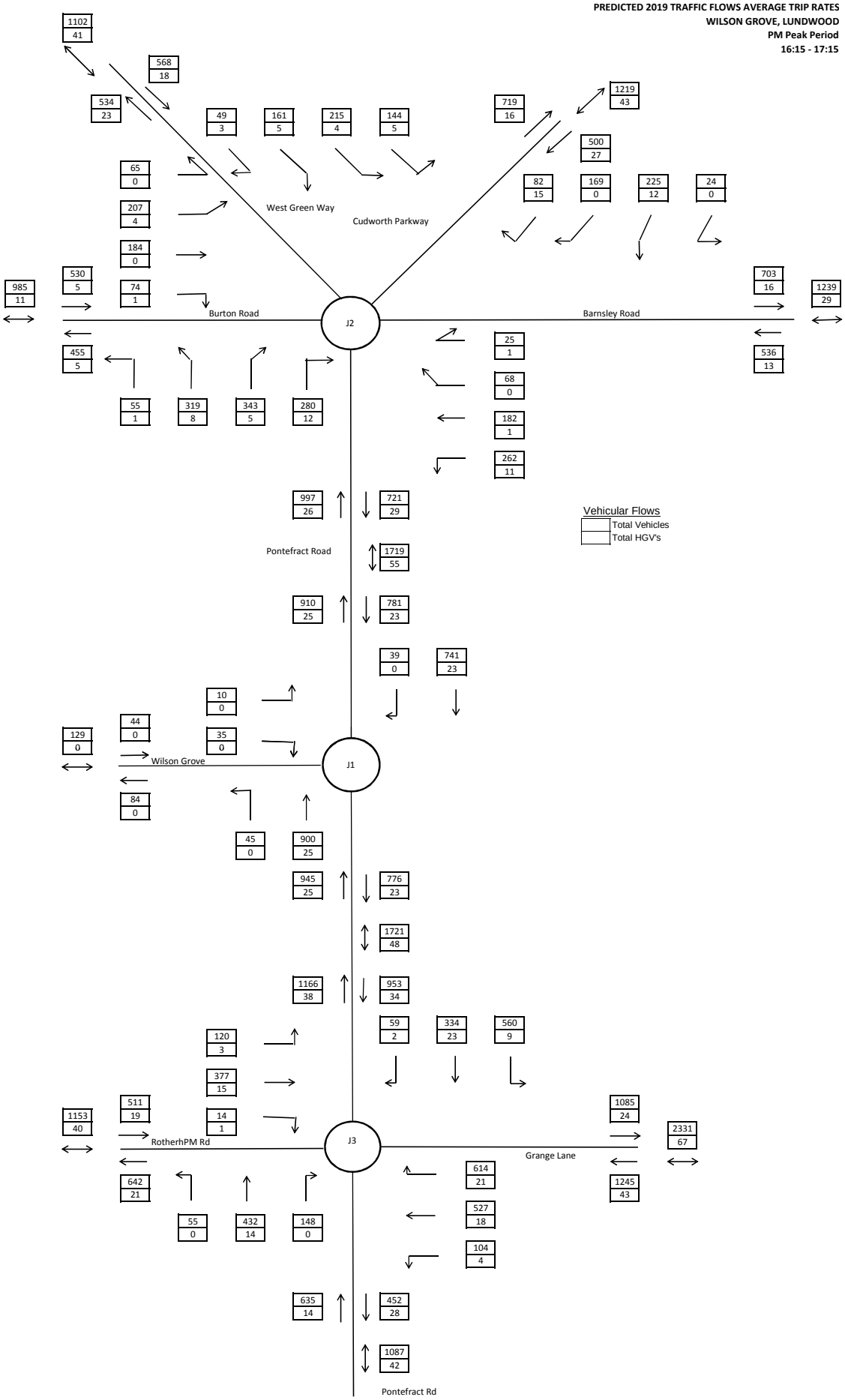
AM	1.0781
PM	1.0807

Appendix 14

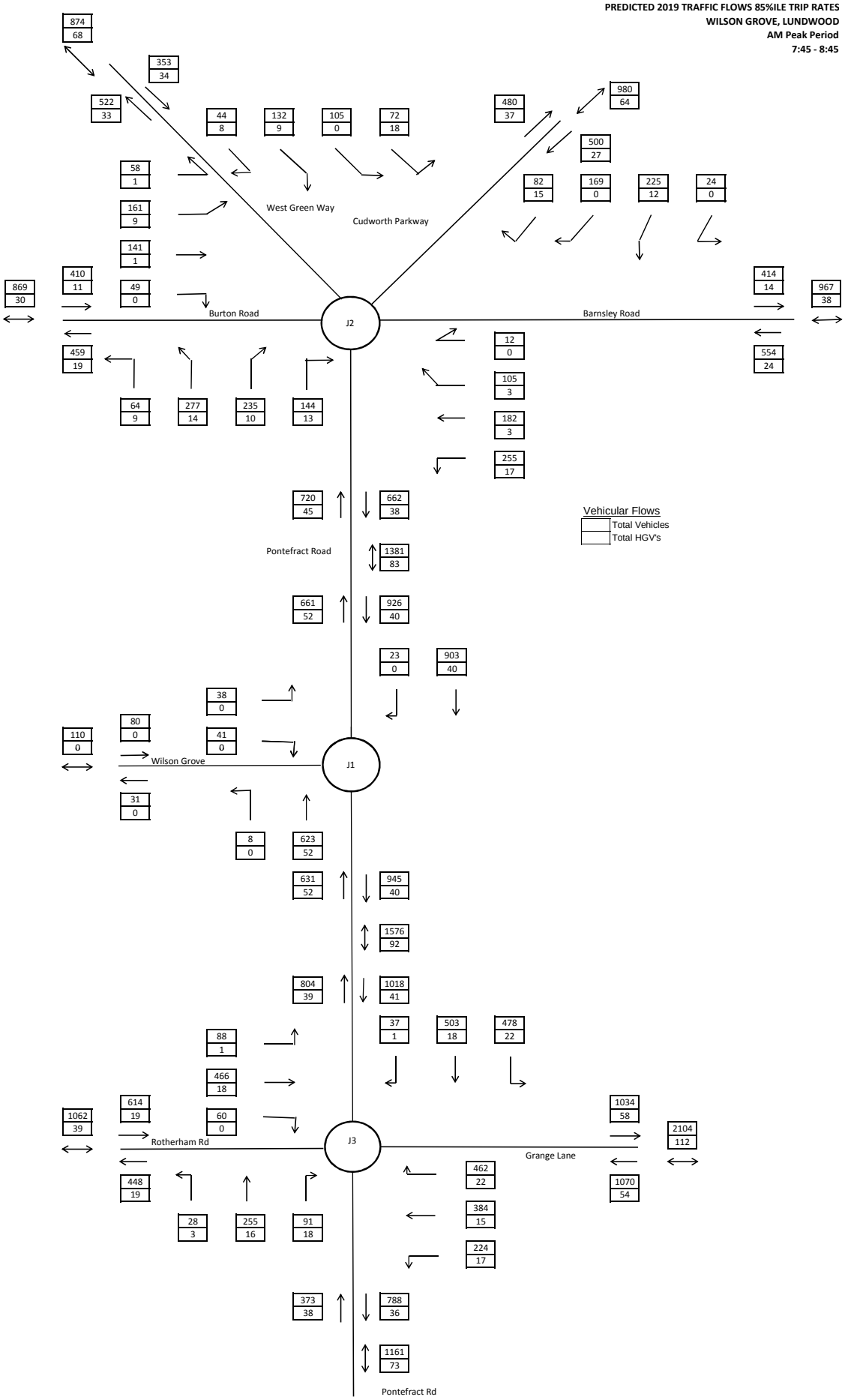
PREDICTED 2019 TRAFFIC FLOWS AVERAGE TRIP RATES
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45



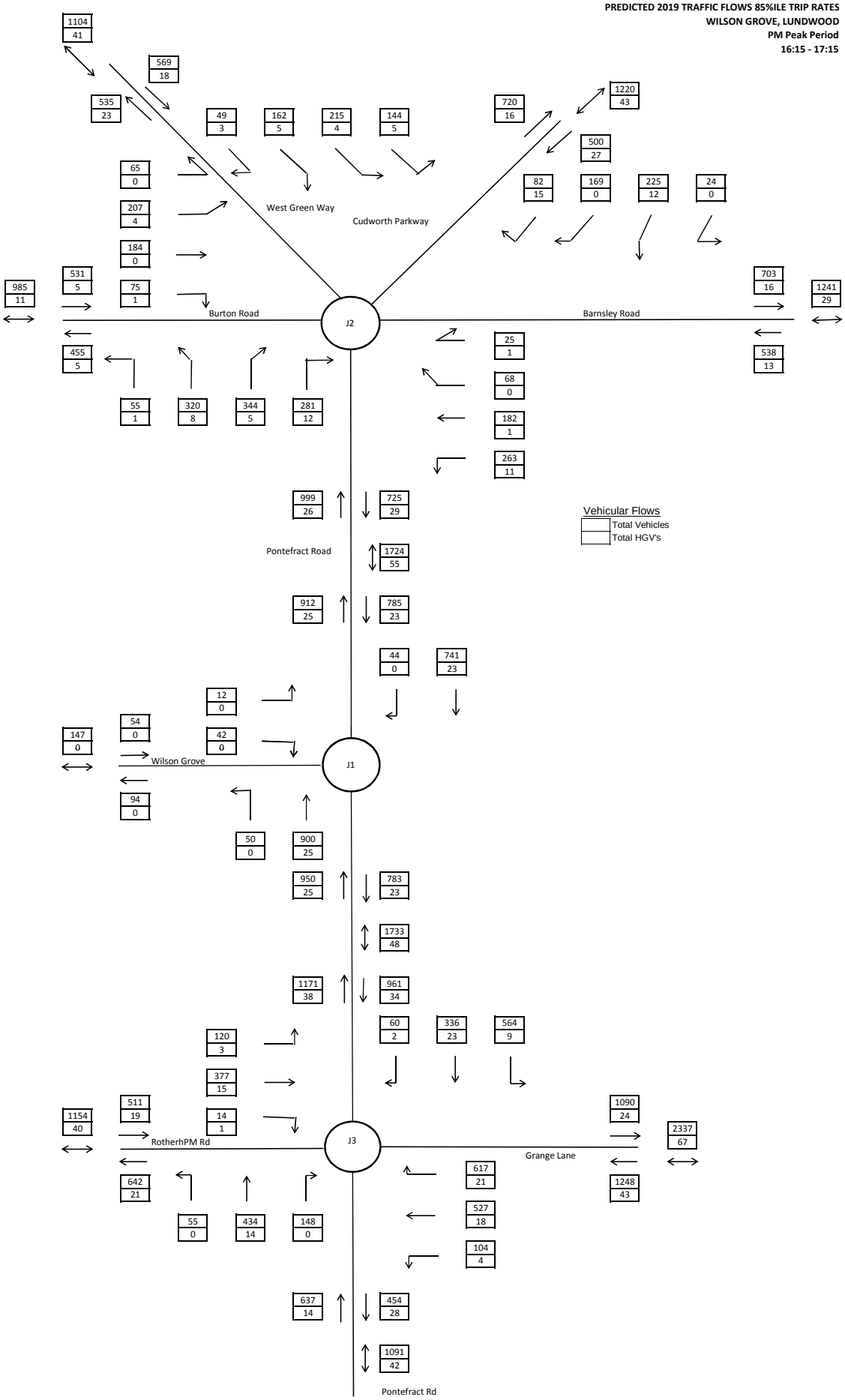
PREDICTED 2019 TRAFFIC FLOWS AVERAGE TRIP RATES
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15



PREDICTED 2019 TRAFFIC FLOWS 85%ILE TRIP RATES
WILSON GROVE, LUNDWOOD
AM Peak Period
7:45 - 8:45

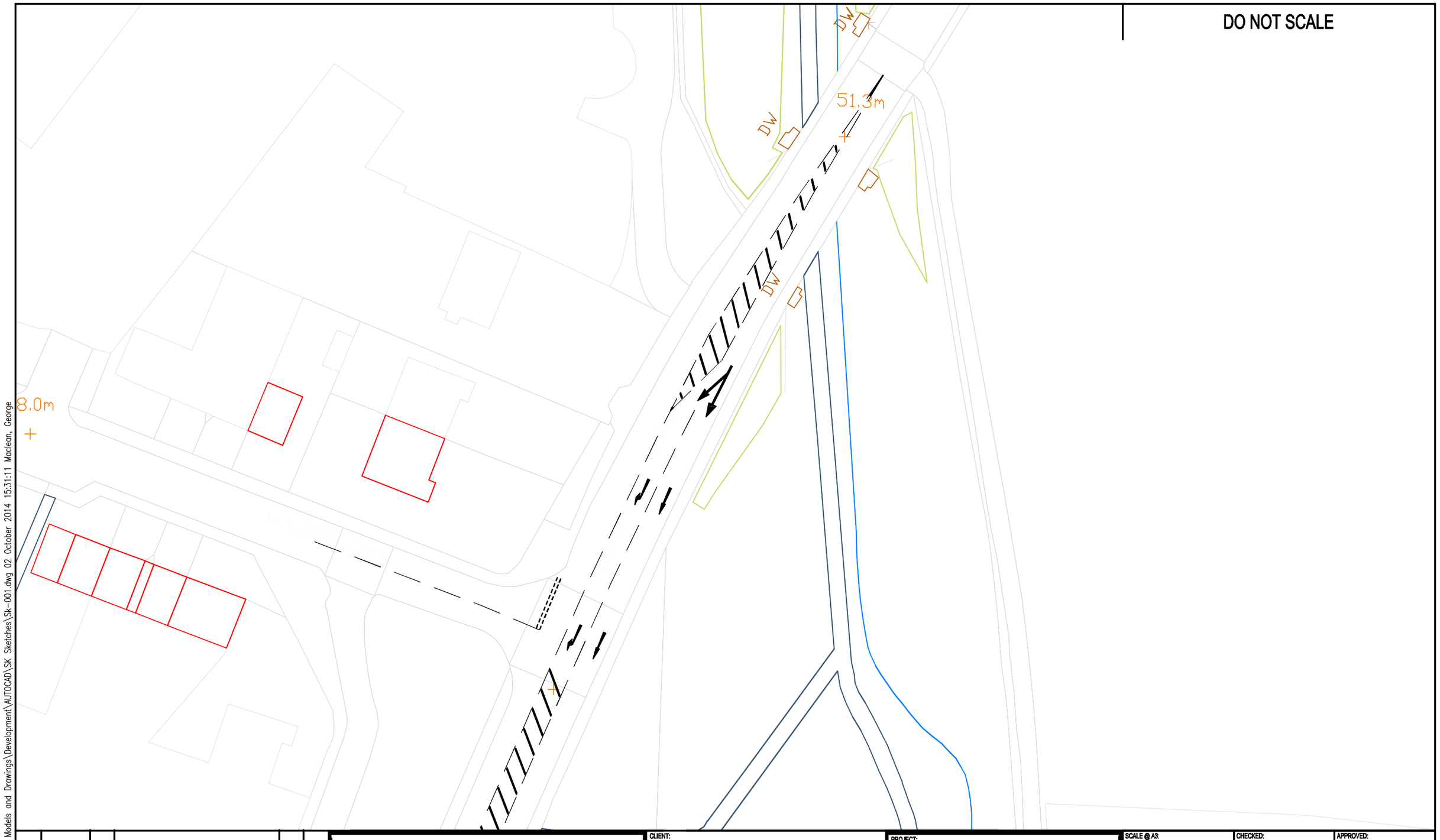


PREDICTED 2019 TRAFFIC FLOWS 85%ILE TRIP RATES
WILSON GROVE, LUNDWOOD
PM Peak Period
16:15 - 17:15



Appendix 15

DO NOT SCALE



REV	DATE	BY	DESCRIPTION	CHK	APD
A	02/10/14	GDM	ISSUED FOR	AH	AH

DRAWING STATUS: FOR INFORMATION ONLY

WSP
Three White Rose Office Park, Millshaw Park Lane, Leeds LS11 ODT
Tel: +44 (0)113 395 6200 Fax: +44 (0)113 395 6201
http://www.wspgroup.com

CLIENT: GLEESON DEVELOPMENTS LIMITED

ARCHITECT:

PROJECT: LUNDWOOD, BARNSLEY

TITLE: INDICATIVE HIGHWAY IMPROVEMENTS

SCALE @ A3:	CHECKED:	APPROVED:
1:500	AH	AH
CAD FILE:	DESIGN-DRAWN:	DATE:
SK-001.DWG	GDM	September 14
PROJECT No:	DRAWING No:	REV:
70007115	SK-001	A

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T:\70007115 - Lundwood Barnsley\E Models and Drawings\Development\AUTOCAD\SK Sketches\Sk-001.dwg 02 October 2014 15:31:11 Maclean, George