



South Industrial Zone

Supplementary Environmental Statement
September 2020
Volume 3: Technical Appendices
(Section 3 Transport)

Appendix 3.1

Transport Assessment Addendum



South Tees Development
Corporation

South Industrial Zone

Transport Assessment Addendum

001

Issue | 3 September 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 276320/12

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Executive Summary

This Transport Assessment Addendum responds to requests from stakeholders to provide additional information to assist them in making an informed response with regards to the impact that the South Industrial Zone development will have on the local and strategic transport network. Specifically:

- Middlesbrough Council requested that the development trips be assessed in their highway model;
- Highways England asked for further data on the scale of development trips that will access the site via the Strategic Road Network; and
- Highways England also requested that the impact at the Greystones Roundabout be assessed.

The findings from the Middlesbrough Transport Model indicate that without mitigation and if car mode share follows the trend recorded by the last Census (82% of commuters travelling to South Tees by car), the development trips could significantly affect the highway network in the Middlesbrough area. The main impact is at junctions along the A171 Cargo Fleet Lane corridor.

Census journey to work data has been used to assign traffic travelling to/from the site onto the wider network, extending the scope of trip distribution to the west to incorporate the SRN at the A19, as requested by HE. The findings show that the development could generate, if car travel is left unmanaged, up to 86 inbound trips via the A19 in the morning peak hour. Of these trips, 72% would be travelling from areas to the north. A reverse trend is seen in the PM peak hour.

Previous assessments of Greystones Roundabout have shown that it is operating at capacity in future years. It is therefore unsurprising that it operates above capacity in the 2033 future assessment year with the development trips, albeit the development trips have marginal impact on the capacity indicators at the junction.

It is therefore concluded that initiatives are required to reduce car mode share. It is expected that prior to full occupation of this site (2028), measures will be implemented as part of the Transport Strategy for the South Tees Development Corporation (STDC) Regeneration Masterplan to improve the accessibility of the site by sustainable modes of transport. The Transport Strategy is still in development but will include a delivery plan of interventions which is expected to include, amongst other things:

- Limiting car parking provision on the site and implementing a Car Parking Management Plan;
- Introducing mobility hubs and improving public transport provision;
- Incorporating a high-quality walking and cycling network that connects to external links; and
- Providing high quality cycling parking at locations around the site.

Future occupiers of the proposed development will be expected to sign up to the Transport Strategy to meet sustainability targets and will benefit from the measures introduced to enhance the accessibility of the site.

Discussions with stakeholders are ongoing as part of the Transport Strategy to agree the preferred options for the strategy (the measures that should be introduced) and the timeline of when these interventions are required.

1 Introduction

1.1 Project Overview

Arup was commissioned by the South Tees Development Corporation (STDC) to develop a Transport Assessment (TA), incorporating a Travel Plan framework, in support of an outline planning application for the development of industrial (B2/B8) land use within part of the South Industrial Zone (SIZ) of the STDC site.

The outline planning application was submitted to the local planning authority, Redcar and Cleveland Borough Council (RCBC), in July 2020 (reference number R/2020/0357/OOM).

The application site is located in the south-western extent of the STDC area and comprises approximately 174 hectares. The site's history includes iron and steel industries, and the storage of material and freight rail infrastructure uses. The site location is shown in **Figure 1**.

Figure 1: Site Location



1.2 Purpose of this Addendum

Following the submission of the TA for planning application R/2020/0357/OOM, feedback was received from Highways England (HE) and the neighbouring local authority Middlesbrough Council (MC) requesting additional assessment of the transport network. The areas of additional assessment were as follows:

- MC requested that development trips be run through the Middlesbrough Transport Model which is maintained by Fore Consulting. The Middlesbrough Transport Model comprises microsimulation models of each of the key highway corridors in the Borough together with a wider-area macroscopic model, thereby allowing both the strategic and local impacts of

new developments to be assessed through a combination of macroscopic and microscopic modelling;

- HE requested further details on the distribution of traffic, expanding the distribution and assignment to the west to include the Strategic Road Network (SRN) in that direction; and
- HE requested that the impact on the A174/A1053 Greystones Road/B1380 High Street roundabout (referred to throughout as ‘Greystones Roundabout’) be assessed.

This report provides an addendum to the TA to address the additional scope listed above. Each item is addressed in turn and accordingly:

- Section 2 summarises the outcomes from the Middlesbrough Transport Model with more detailed reporting in Appendix A;
- Section 3 uses Census data to distribute trips onto the wider highway network; and
- Section 4 presents the assessment of the Greystones Roundabout.

This Addendum should be read in conjunction with the TA produced by Arup and dated 3 July 2020.

2 Middlesbrough Transport Model

2.1 Introduction

Fore Consulting Limited (Fore) has developed the Middlesbrough Transport Model which MC is using to assess the impact of development trips in the Middlesbrough area, west of the development site. The model is based on conditions in 2019 and future do minimum assessment years have been developed for 2020, 2025 and 2030.

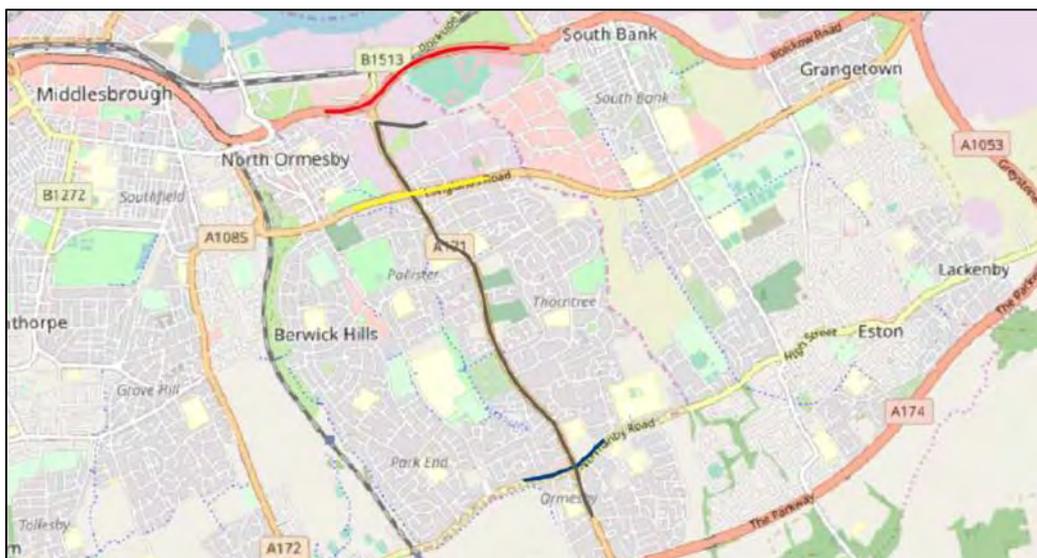
2.2 Assessment Scenarios

Total development trips for the morning, inter-peak and evening peak period have been provided to Fore as outlined in the modelling pro-forma attached in **Appendix A**, along with their methodology and a full summary of the modelling results. For the 2025 future year assessment scenario with development (do something scenario), it has been assumed that 40% of the site will be occupied. By 2030 it has been assumed that all the development trips will be on the network.

The model statistics compare the results of the do minimum future year scenarios with the do something future year assessments. Journey time results compare the change in journey time experienced over the modelling period.

The Aimsun model is divided into several subnetworks. Subnetwork 2 covers the A171 Cargo Fleet Lane corridor from the A66 Cargo Fleet Lane roundabout in the north to the A171 Cargo Fleet Lane / B1380 High Street / Sunnyfield roundabout in the south. This is the area closest to the South Tees development and is shown in **Figure 2**.

Figure 2: Subnetwork 2 – Subnetwork Extents and Journey Time Routes



The report in **Appendix A** also reports on two other subnetworks:

- Subnetwork 1 – Middlesbrough Central; and

- Subnetwork 4 – Ormesby Road from the A1085 Longlands Road to the B1380 Ladgate Lane.

2.3 Model Results

2.3.1 Network Wide Statistics

Network statistics provide a strategic overview of the performance of the network. The network statistics for subnetwork 2 (Cargo Fleet Lane corridor) are shown in **Table 1** and **Table 2**.

Table 1: Subnetwork 2 - Network Statistics Summary – AM Peak Period (07:30 – 09:30)

Statistic	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	113.1	149.7	157.2	160	240.4
Delay	sec/km	53.4	89.6	97.2	100	181.1
Density	veh/km	8.9	11.6	12.5	12.7	23.1
Mean Queue	veh	106.6	190.2	213.1	218	538.2
Speed	km/h	41	34.9	33.8	33.4	29.2
Stop Time	sec/km	42	75.3	82.3	84.9	162.8
Flow	veh/h	9,513	9,894	9,976	10,193	9,860
Vehicles Out	veh	19,025	19,787	19,952	20,386	19,719
Vehicles In	veh	301	418	462	449	1,141
Vehicles Waiting to Enter	veh	0	988	1,144	1,340	2,434

Table 2: Subnetwork 2 - Network Statistics Summary – PM Peak Period (16:00 – 18:00)

Statistic	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	120	205	261.1	242.3	353.1
Delay	sec/km	60.6	144.8	200.3	182.2	292.1
Density	veh/km	10.5	19	24.9	23.9	36.8
Mean Queue	veh	137.9	407	618	559.6	1,015.9
Speed	km/h	40.5	28	23.2	23.4	17.9
Stop Time	sec/km	49.2	124.6	178.8	158.5	264.8
Flow	veh/h	10,690	11,015	10,600	11,343	10,363
Vehicles Out	veh	21,381	22,030	21,200	22,685	20,726
Vehicles In	veh	311	804	1,083	1,212	2,040
Vehicles Waiting to Enter	veh	16	558	1,818	579	3,236

The results show that the overall capacity of the subnetwork is forecast to be adversely affected with the development in place compared to the corresponding do minimum scenario. In the AM peak, the impact of the development in 2025 is relatively slight. However, by 2030 there is a greater difference between the do minimum outputs and the do something scenario. In the PM peak the differences are exacerbated.

2.3.2 Journey Time Analysis

Modelled journey times, for the ‘do minimum’ and ‘do something’ scenarios, are presented in the report attached in **Appendix A**. The report identifies the following routes where the increase in journey time could be considered to be severe:

- Subnetwork 1 – A66 (east) to A1032 Newport Bridge (west) where there is a 35% increase in 2030 inter-peak period;
- Subnetwork 2 – A1085 Longlands Road (west) to A1085 Longlands Road (east) where there is a 191% increase in the 2030 AM period and 155% increase in the inter-peak period;
- Subnetwork 2 – A171 Sunnyfield (south) to South Bank Road (east) where there is a 121% increase in 2030 AM period, 180% increase in inter-peak period and around 50% increase in the PM peak period;
- Subnetwork 2 – A66 (both directions) where there is a 139% increase in 2030 inter-peak period and a 153% increase in PM peak period; and
- Subnetwork 4 – B1380 High Street (east) to A172 Ormesby road where a 44% increase is forecast in the AM peak period.

The results indicate that the greatest impacts on journey times are in subnetwork 2 (Cargo Fleet Lane corridor). However, there is also a significant impact on the A66 (subnetwork 1) and on the B1380 Ladgate Lane corridor (subnetwork 4).

2.3.3 Junction Statistics

Junction statistics have been extracted from 19 junctions in the microscopic model area and it has been identified that the development has an impact at the following junctions:

- Riverside Park Road / Ironmasters Way – there is a slight increase in delay at the junction in the PM peak. However the findings conclude that the junction is likely to operate satisfactorily with the development in place.
- Newport Interchange – the development is forecast to exacerbate existing issues of queueing blocking the junction but is unlikely to materially affect the operation of the junction in 2025. However, by 2030, the model results indicate that the development could have a detrimental impact on the junction.
- Hartington Interchange – the model outputs identify existing issues at the junction but notes that the junction is still expected to operate satisfactorily with the development in place.

- West Terrace / Cromwell Street – the model outputs suggest that the operation of this junction could be detrimentally affected in 2030. However it is a minor junction and it is likely that vehicles would divert onto other parts of the network if the junction was congested.
- A66 / Borough Road – the results indicate that in the 2030 do something scenario delays increase, particularly on the A66 westbound off-slip arm of the junction.
- A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield – the modelling report notes that the junction is expected to operate above or close to capacity in the do minimum scenario and the development does not significantly affect the operation, but by 2030, the development could have a noticeable effect on the operation of the junction.
- A171 Cargo Fleet Lane / A1085 Longlands Road – a detrimental impact is forecast in the 2030 do something scenario at the junction, with the highest increase in delay forecast at the A1085 Longlands Road (west) arm of the junction in the AM peak and to a lesser extent, the A171 Cargo Fleet Lane (south) arm of the junction.
- A171 Cargo Fleet Lane / Cranmore Road – this junction is affected by the upstream issues at the A171 Cargo Fleet Lane / A1085 Longlands Road junction mentioned above.
- A171 Cargo Fleet Lane / College Road – as above, this junction is also affected by the upstream congestion with vehicles turning right onto Cargo Fleet Lane northbound unable to clear the junction during the allocated signal green time.
- A66 / A171 Cargo Fleet Lane throughabout – the proposed development is forecast to materially affect the operation of the junction in both the 2025 and 2030 do something scenarios due to the increase in traffic on the A66 in both directions.
- A171 Cargo Fleet Lane / South Bank Road – the development is forecast to have a detrimental impact on the junction in the PM peak period with an increase in delays, particularly on the South Bank Road (east) arm of the junction.
- Ormesby Road / A1085 Longlands Road / Kings Road – there are increases to delays in the AM and PM periods. However the model report concludes that the junction is likely to operate satisfactorily with the proposed development in place.

Junction statistics have also been extracted from the macroscopic (wider) model area and two junctions have been identified where the impact of the development is considered to be significant:

- A172 Stokesley Road / A174 Parkway – the report concludes that the impact of the development traffic is unlikely to materially affect the operation of the junction across both future assessment year scenarios.

- A171 Ormesby Bank / A174 off-slip / Church Lane – the modelling notes that development traffic will add to the existing issue of right turners at the junction causing it to operate above capacity.

2.4 Conclusions

The Aimsun modelling demonstrates that the proposed development is expected to give rise to a detrimental impact at some locations on Middlesbrough's network, particularly along the A171 Cargo Fleet Lane corridor at the A66 trunk road. In 2025, when the site is expected to be 40% built out, the modelling suggests that impacts are isolated. However, by 2030, when the site is expected to be fully built out, the impacts of the proposed development become more widespread.

However, Fore Consulting note in the report (**Appendix A**) that this is a particularly robust assessment of the impact of the proposed development for the following two reasons:

- The trip generation assumes a worst-case scenario that the majority of employees (82%) will drive to the site based on existing travel trends; and
- The assessment does not account for the STDC Transport Strategy which will introduce measures to reduce car mode share.

It is therefore recommended that, following further discussions with Middlesbrough Council, there are two key considerations:

- Modelling the effects of the implementation of the STDC Transport Strategy to consider the likely benefits of reducing the commuter mode share and the effect that this could have on the future operation of the network. This will be undertaken as part of the Transport Strategy work for the masterplan; and
- Developing and modelling potential physical highway improvement options in order to mitigate the residual impacts of the proposed development, if still required after taking into consideration other measures that will be implemented through the strategy.

MC are part of the STDC Transport Strategy steering group and will therefore be kept informed of the outcomes of the transport modelling for the strategy. It is expected that MC will seek assurance on the phasing of this development to ensure that measures are implemented that provide alternative means of travel to the site and reduce car mode share.

3 Traffic Distribution and Assignment

3.1 Introduction

This section is in response to a request from HE for further details of the distribution of development traffic to understand the potential impact of the development on the strategic road network.

3.2 Trip Distribution

The SIZ has two access points – one on the eastern boundary via Dockside Road and the other on the western boundary via Tees Dock Road. The access via Dockside Road is to be signed as the main access point and 60% of trips have been assigned to this access with 40% via Tees Dock Road.

Traffic assignments throughout the remainder of the study area have been informed by base traffic distributions. The study area provided in the TA extends from the A66 / B1513 Old Station Road roundabout to the west and to the A174 / Greystones Roundabout to the south-east. HE has asked for further information regarding the distribution of traffic once it leaves the study area to clarify how many trips will be generated on roads managed by HE. The HE network in the local area includes:

- The A1053/A174 from the Trunk Road to the A19;
- The A19; and
- The A66, west of the A19.

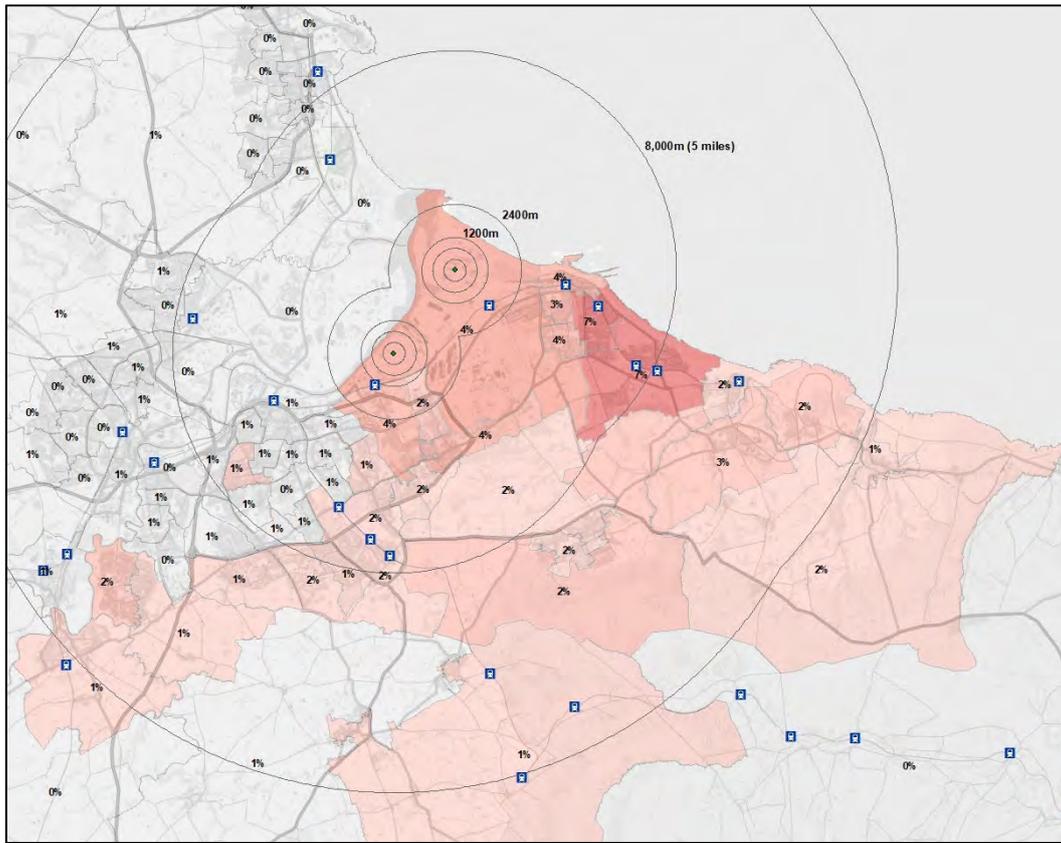
In the absence of wider base traffic flows on which to distribute traffic, Census data has been used to inform wider trip distribution assumptions. Travel to work data from the 2011 Census has been downloaded for those travelling to the area where the site is located (Census MSOA E02002517). The travel to work area is shown in **Figure 3**. In 2011 the site was operating as a steel works and whilst noting that the proposed use could alter the trip attraction of the site, the zone includes the Wilton International Site, so it was likely to have a relatively mixed geographical draw in 2011.

Figure 3: 2011 UK Census Output Area E02002517



Any origins where there were more than 10 travel to work trips to the STDC area have been identified and this has been used to calculate the proportion of overall trips from these origins. These proportions are labelled on **Figure 4**. Note that areas labelled as 0% will still have at least 10 trips but the proportion of overall trips is less than 1%.

Figure 4: Proportion of Travel to Work Trips to STDC Area



Origins with 1% of total trips or more were extracted and the most likely main route to the site identified based on directions given in Google Maps. This data is presented in Table 3.

Table 3: Travel to Work Origins and Assigned Routes

Destination	Origin	Origin Description*	Assigned Route	All Trips	% of Trips
E02002517	E02002518	Redcar Lane / Coast	A66/Trunk Road	557	7%
E02002517	E02002520	Marske	A174 east	540	7%
E02002517	E02002517	Same as Site	NA	349	4%
E02002517	E02002519	South central Redcar	A66/Trunk Road	319	4%
E02002517	E02002515	Redcar town centre	A66/Trunk Road	311	4%
E02002517	E02006910	South Bank	A66/Normanby Road	301	4%
E02002517	E02002525	Lazenby/Lacke nby	A174/High Street	289	4%
E02002517	E02002516	North central Redcar	A66/Trunk Road	273	3%
E02002517	E02002526	Skelton	A174 east	253	3%

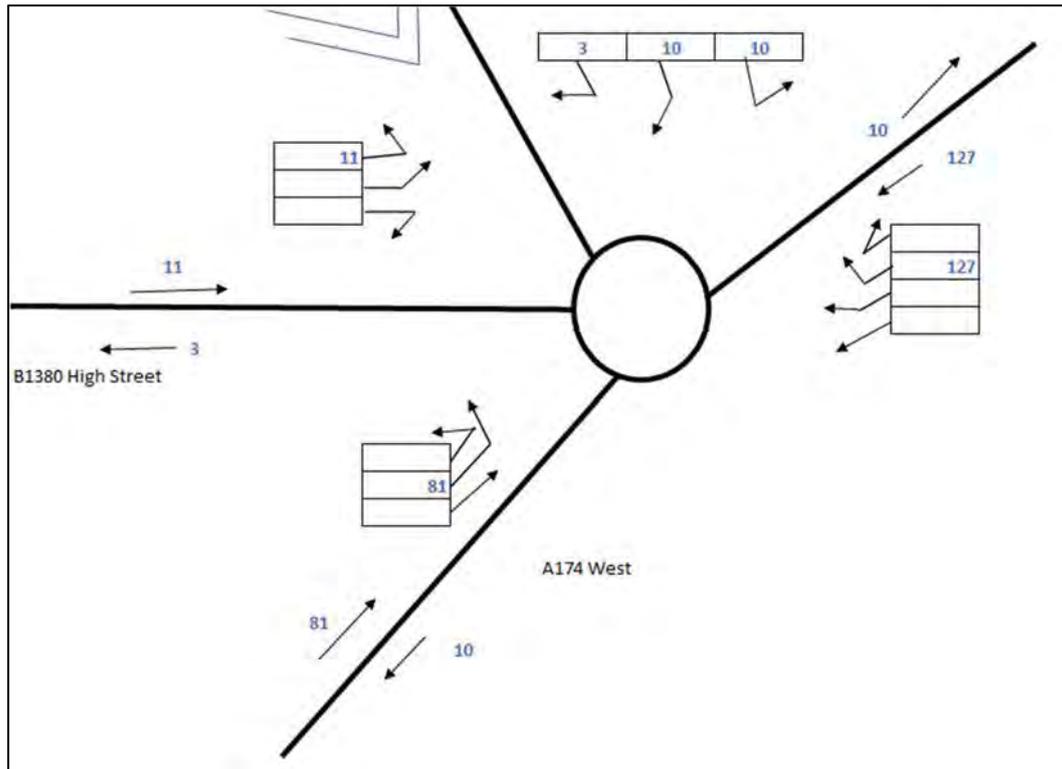
Destination	Origin	Origin Description*	Assigned Route	All Trips	% of Trips
E02002517	E02002557	Eaglescliffe	A66/Durham Lane	194	2%
E02002517	E02002534	East Guisborough	A174 east	186	2%
E02002517	E02002523	Grangetown	A66/Church Lane	177	2%
E02002517	E02002524	Brotton	A174 east	176	2%
E02002517	E02002529	Eston	A174/High Street	172	2%
E02002517	E02006811	Nunthorpe	A174/A171	171	2%
E02002517	E02002514	Hemlington	A174/A1032/ B1365	159	2%
E02002517	E02002533	Pinchinthorpe	A174/A171	150	2%
E02002517	E02006812	Ormesby	A174/A171	147	2%
E02002517	E02002521	Saltburn	A174 east	142	2%
E02002517	E02002532	West Guisborough	A174/A171	130	2%
E02002517	E02002530	Lingdale/Easington	A174 east	123	2%
E02002517	E02002556	Ingleby Barwick	A174/A19	109	1%
E02002517	E02002502	Cargo Fleet Lane area	A174/A171	98	1%
E02002517	E02002504	Linthorpe	A66/Borough Road	95	1%
E02002517	E02005750	Stokesley	A174/A171	95	1%
E02002517	E02002512	Marton	A174/A172	94	1%
E02002517	E02002558	Yarm	A174/A19	94	1%
E02002517	E02002527	Loftus/Skinnin grove	A174 east	90	1%
E02002517	E02002513	Stainton	A19/A174	89	1%
E02002517	E02002501	Grove Hill	A66/Borough Road	83	1%
E02002517	E02002555	Eaglescliffe	A66/Durham Lane	81	1%
E02002517	E02005751	Hutton Rudby	A66/A19	78	1%
E02002517	E02002500	Linthorpe	A66/Borough Road	72	1%
E02002517	E02002496	Central Middlesbrough	A66/Borough Road	69	1%
E02002517	E02002507	Acklam	A174/A1032/ B1365	68	1%
E02002517	E02002498	Central Middlesbrough	A66/Borough Road	64	1%

Destination	Origin	Origin Description*	Assigned Route	All Trips	% of Trips
E02002517	E02002508	Acklam	A174/A1032/ B1365	63	1%
E02002517	E02002499	Berwick Hills	A66/A171	62	1%
E02002517	E02002509	Easterside	A174/A172	62	1%
E02002517	E02002505	Berwick Hills	A66/A171	60	1%
E02002517	E02002497	North Ormesby	A66/Cargo Fleet Lane	58	1%
E02002517	E02002535	Wolviston	A19/A66	57	1%
E02002517	E02002539	West Stockton	A66/Yarm Back Lane	55	1%
E02002517	E02002553	Thornaby	A174/A19	54	1%
E02002517	E02002503	Whinney Banks	A66/A1032	53	1%
E02002517	E02002510	Acklam	A174/A1032/ B1365	53	1%
E02002517	E02002552	Thornaby	A174/A19	52	1%
E02002517	E02002549	West Stockton	A66/A19	49	1%
E02002517	E02002540	Norton	A19/A66	46	1%
E02002517	E02002541	Norton	A19/A66	44	1%
E02002517	E02006909	Hartlepool	A19/A66	44	1%
E02002517	E02002544	Stockton central	A66/A135	43	1%
E02002517	E02002548	Stockton central	A66/A135	43	1%

* 'Origin Description' identified based on nearest residential area / known location. Some zones have the same description as they cover the same broad area.

3.3 Development Traffic - A174

Looking specifically at the impact on the A174, the traffic flow diagrams presented in the TA submitted for planning (application number R/2020/0357/OOM) show 81 inbound trips and 10 outbound trips from the development travelling via the A174, west of Greystones Roundabout, in the AM peak hour. An extract from the traffic flow diagram is shown overleaf in **Figure 5**. The traffic forecasts are based on a worst-case assumption that mode share proportions remain as existing, with high reliance on private car. A Transport Strategy for the STDC Regeneration Masterplan is being developed which will include measures to provide and promote alternative modes of travel to the site.

Figure 5: AM Peak Hour (08:00 – 09:00) Development Trips

There are no at-grade junctions between Greystones Roundabout and the signalised roundabout with the A19 to the west. All connections are accessed via on/off slips. The connecting routes, from the east, are:

- A171/Cargo Fleet Lane – from the A174 westbound there is a two-lane slip-road to the A171 which is signposted for Ormesby, Cargo Fleet and Guisborough. A left-turn filter lane is provided on the slip-road, but vehicles must give-way at the top of the slip-road to the A171. To join the A174 there is an eastbound slip-road; a right-turn lane is provided for vehicles approaching the slip-road from the south and vehicles entering the slip-road from the north must give-way to right turning vehicles.
- A172 Stokesley Road/Dixons Bank – from the A174 westbound there is a two-lane slip-road to the A172 which is signposted for Middlesbrough Centre and Stokesley. A left-turn filter lane is provided on the slip-road, but vehicles must give-way at the top of the slip-road to the A172. Traffic lights on the bridge over the A174 control vehicles turning right from the A172 onto the A174 eastbound slip-road. Vehicles entering the eastbound slip-road from the north must give-way to right turning vehicles.
- A174 / A1032 / B1365 – from the A174 westbound there is a two-lane slip-road to the B1365 which is signposted for Acklam, Hemlington and Coulby Newham. A left-turn filter lane is provided that merges onto the B1365 southbound. Access onto the A174 eastbound is via an on-slip accessed via Ladgate Lane.

Using the travel to work data in **Table 3**, the forecast development trips (81 inbound and 10 outbound) on the A174 during the morning peak have been

assigned to origins and the number of trips entering/exiting at each connecting route calculated. This is shown in Table 4 which shows trips from east to west.

Table 4: Travel to Work Origins and Assigned Routes via A174 – AM Peak Hour Development Trips

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
Ormesby	A174/A171	147	9%	7	1
Pinchinthorpe	A174/A171	150	9%	7	1
West Guisborough	A174/A171	130	8%	6	1
Stokesley	A174/A171	95	6%	5	1
A174/A171 Junction Total Trips				25	4
Marton	A174/A172	94	6%	5	1
Easterside	A174/A172	62	4%	3	0
Nunthorpe	A174/A172	171	11%	9	1
A174/A172 Junction Total Trips				17	2
Acklam	A174/A1032/B1365	184	11%	9	1
Hemlington	A174/A1032/B1365	159	10%	8	1
A174/A1032/B1365 Junction Total Trips				17	2
Ingleby Barwick	A174/A19	109	7%	6	1
Yarm	A174/A19	94	6%	5	1
Thornaby	A174/A19	106	6%	5	1
Stainton	A19/A174	89	6%	5	1
A19/A174 Roundabout Total Trips				21	4

* Figures subject to rounding

Figure B1 in **Appendix B** shows the trips on an extended traffic flow diagram.

The development would have less of an impact during the PM peak hour as shown in **Figure 6** and **Table 5**. **Figure B2** in **Appendix B** shows the PM peak hour development trips on an extended traffic flow diagram.

Figure 6: PM Peak Hour (17:00 – 18:00) Development Trips

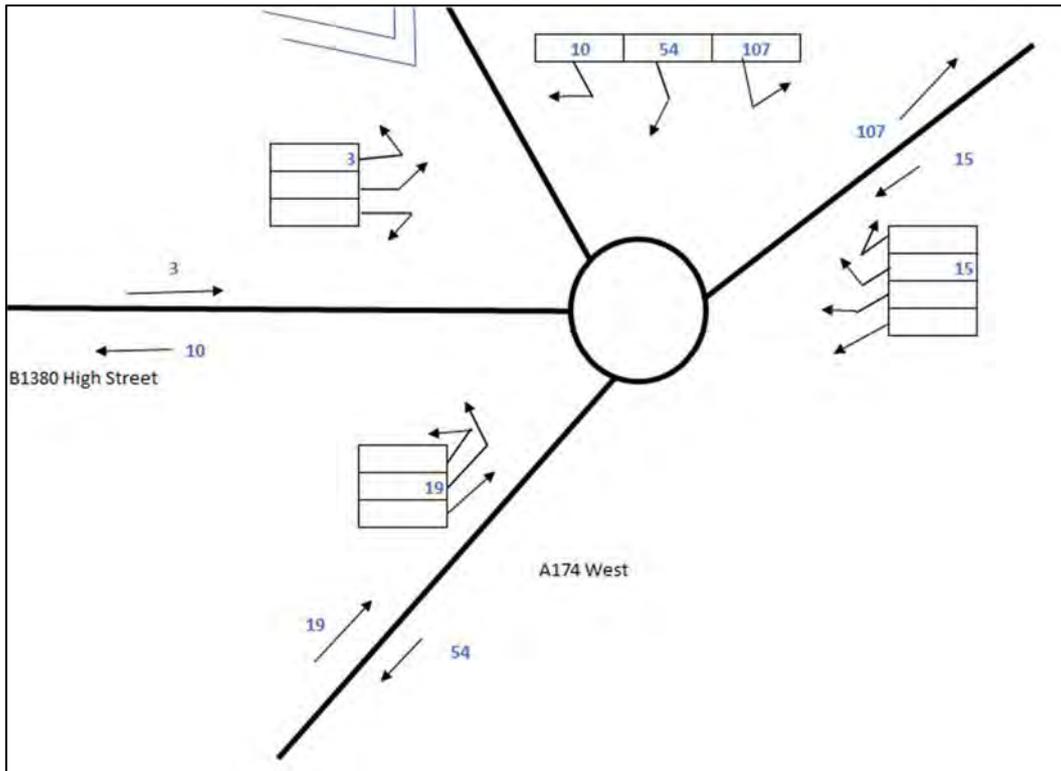


Table 5: Travel to Work Origins and Assigned Routes via A174 – PM Peak Hour Development Trips

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
Ormesby	A174/A171	147	9%	2	5
Pinchinthorpe	A174/A171	150	9%	2	5
West Guisborough	A174/A171	130	8%	2	4
Stokesley	A174/A171	95	6%	1	3
A174/A171 Junction Total Trips				7	17
Marston	A174/A172	94	6%	1	3
Easterside	A174/A172	62	4%	1	2
Nunthorpe	A174/A172	171	11%	2	6
A174/A172 Junction Total Trips				4	11
Acklam	A174/A1032/B1365	184	11%	2	6
Hemlington	A174/A1032/B1365	159	10%	2	5
A174/A1032/B1365 Junction Total Trips				4	11
Ingleby Barwick	A174/A19	109	7%	1	4
Yarm	A174/A19	94	6%	1	3
Thornaby	A174/A19	106	6%	1	3

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
Stainton	A19/A174	89	6%	1	3
A19/A174 Roundabout Total Trips				4	13

* Figures subject to rounding

3.4 Development Traffic - A19

The traffic diagrams provided in the submitted TA (planning application number R/2020/0357/OOM) indicated that the development could attract 483 inbound trips from the west in the AM peak (via the A66 and Dockside Road) and 204 trips were forecast to travel outbound on the same routes.

To ascertain where these trips originate or are travelling to, the same process with the travel to work data has been applied. Note however that assignment to and from the A19, based on travel to work data, is more difficult because the route traverses around Middlesbrough town centre, which is a destination for purposes other than work, so it is possible that some trips will divert in and out of Middlesbrough town centre. However, for the purpose of determining an approximate number of trips that will travel through the A19/A66 junction, the journey to work data provides sufficient information.

Figures B1 and B2 (Appendix B) show the trips to/from the west distributed onto the highway network based on travel to work origins. The data is provided in **Table 6 and Table 7**.

Table 6: Travel to Work Origins and Assigned Routes from A66/Dockside Road – AM Peak Hour Development Trips

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
Cargo Fleet Lane	A66/Cargo Fleet Lane	98	7%	34	14
North Ormesby	A66/Cargo Fleet Lane	58	4%	19	8
A66/Cargo Fleet Lane Junction Total Trips				53	22
Linthorpe	A66/Borough Road	167	12%	58	25
Central Middlesbrough	A66/Borough Road	133	9%	43	18
Berwick Hills	A66/Borough Road	122	8%	39	16
Grove Hill	A66/Borough Road	83	6%	29	12
A66/Borough Road Junction Total Trips				169	71
Whinney Banks	A1032 Newport R'about	53	4%	19	8

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
A1032 Newport Roundabout Total Trips				19	8
Eaglescliffe	A66	275	19%	92	39
West Stockton	A66	104	7%	34	14
Stockton Central	A66	86	6%	29	12
A66 Total Trips				155	65
Norton	A19/A66	90	6%	29	12
Hutton Rudby/south	A19/A66	78	5%	24	10
Wolviston	A19/A66	57	4%	19	8
Hartlepool/north	A19/A66	44	3%	14	6
A19/A66 Interchange Trips				86	36

* Figures subject to rounding

In the PM peak hour, the traffic diagrams provided in the TA indicated that the development could attract 123 inbound trips and 467 outbound trips via the A66 and Dockside Road. The distribution of PM peak hour trips is shown in Table 7.

Table 7: Travel to Work Origins and Assigned Routes from A66/Dockside Road – PM Peak Hour Development Trips

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
Cargo Fleet Lane	A66/Cargo Fleet Lane	98	7%	9	33
North Ormesby	A66/Cargo Fleet Lane	58	4%	5	19
A66/Cargo Fleet Lane Junction Total Trips				14	52
Linthorpe	A66/Borough Road	167	12%	15	56
Central Middlesbrough	A66/Borough Road	133	9%	11	42
Berwick Hills	A66/Borough Road	122	8%	10	37
Grove Hill	A66/Borough Road	83	6%	7	28
A66/Borough Road Junction Total Trips				43	163
Whinney Banks	A1032 Newport R'about	53	4%	5	19
A1032 Newport Roundabout Total Trips				5	19
Eaglescliffe	A66	275	19%	23	89
West Stockton	A66	104	7%	9	33
Stockton Central	A66	86	6%	7	28

Origin Location	Route	2011 Trips	Proportion*	Development Trips Inbound	Development Trips Outbound
A66 Total Trips				39	150
Norton	A19/A66	90	6%	7	28
Hutton Rudby/south	A19/A66	78	5%	6	23
Wolviston	A19/A66	57	4%	5	19
Hartlepool/north	A19/A66	44	3%	4	14
A19/A66 Interchange Total Trips				22	84

* Figures subject to rounding

3.5 GraHAM Assignment

HE has provided a Technical Memorandum (attached in **Appendix C**) which outlines the distribution of trips and impacts of the development on the SRN using the GraHAM tool. The tool uses a combination of MS Excel and GIS to undertake analysis of future development using 2011 Census Travel to Work data. For assignment, the tool takes the fastest path based on free flow speeds.

Table 3 in the Technical Memorandum (**Appendix C**) summarises the main differences between the GraHAM assignment and the assignment used in the assessment. The key difference appears because the GraHAM analysis removes the A174 links to the east of Ormesby to reroute traffic via the A172 and Cargo Fleet Lane to access the main access on the western side of the development site. This reduces traffic on the A66. However, as shown by the Google images overleaf (**Figures 7 – 9**), the A66 and A19 are still expected to be the preferred routes for trips originating from residential areas to the south of the A174.

Figure 7 Google Map Route – Nunthorpe to Western Site Access

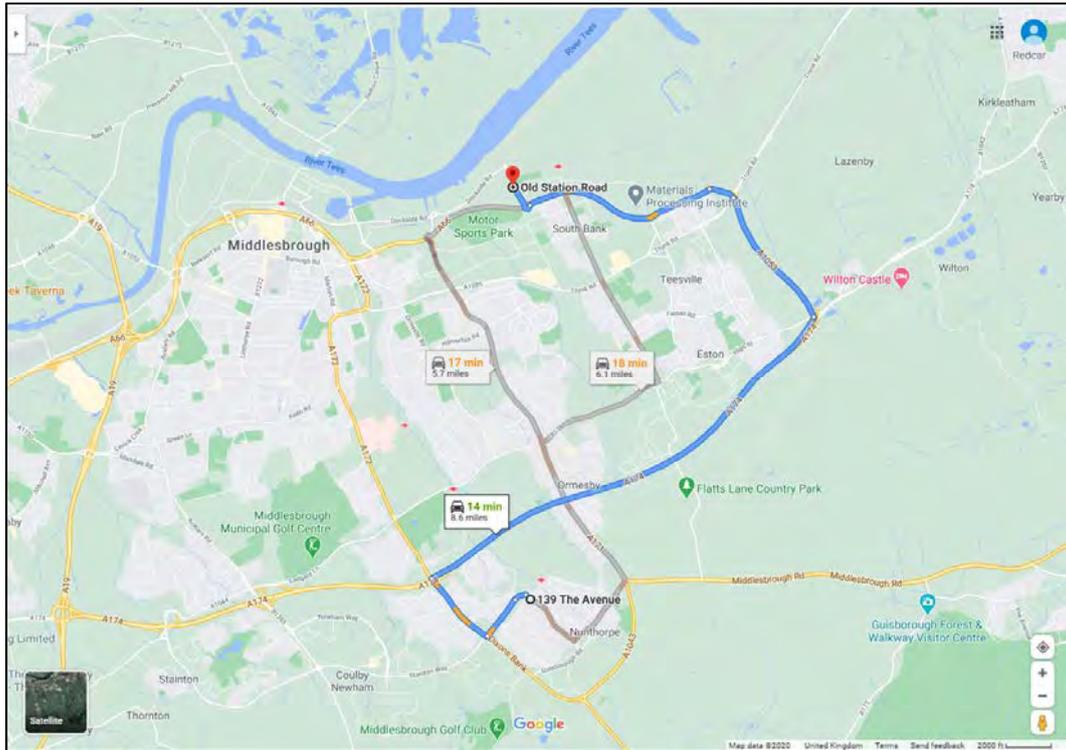


Figure 8 Google Map Route – Coulby Newham to Western Site Access

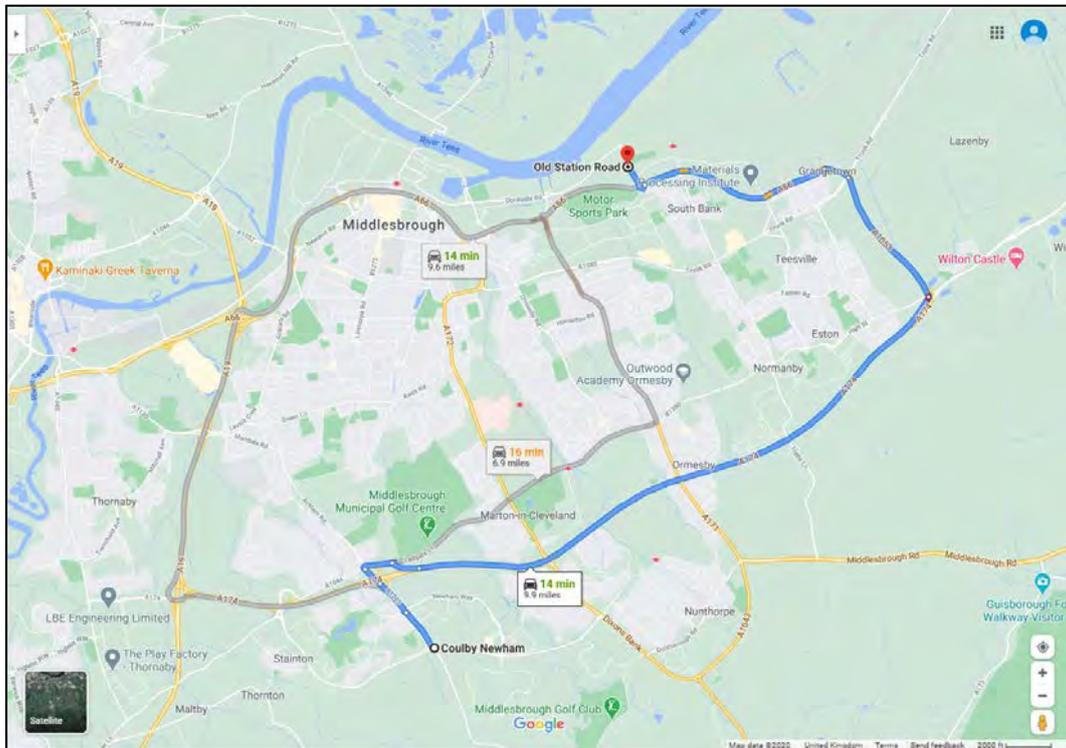
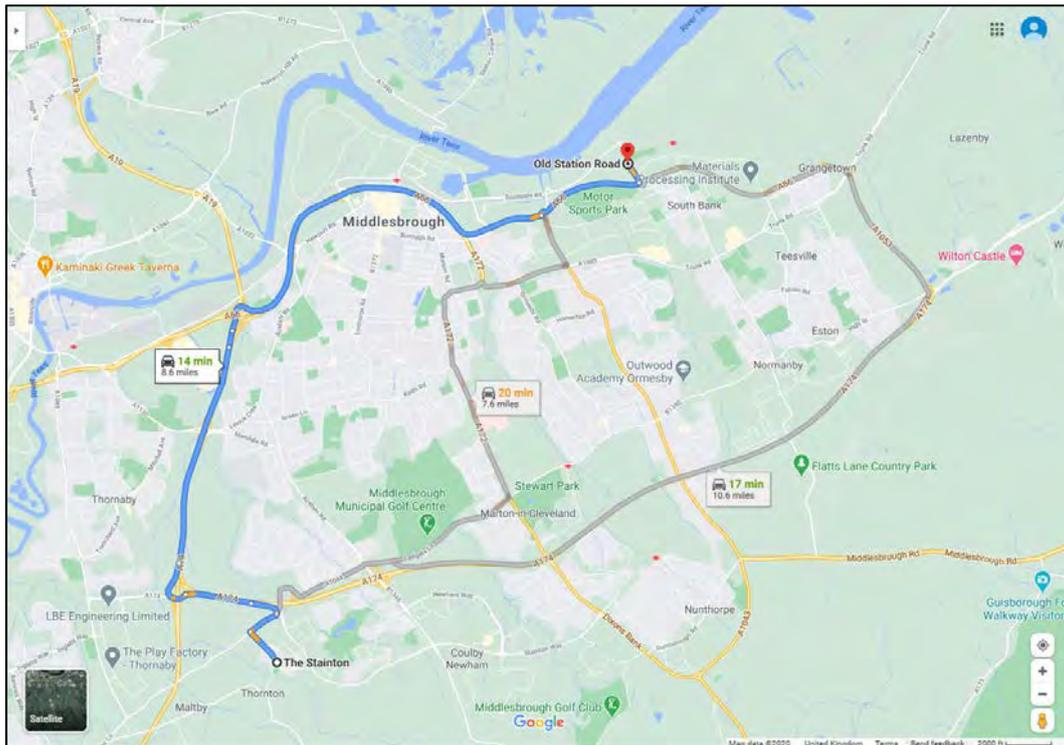


Figure 9 Google Map Route – Stainton to Western Site Access

3.6 Trip Distribution Summary

The proposed development site forms part of the wider STDC Regeneration Masterplan for which a transport strategy is being developed and which will implement initiatives to minimise car trips and promote sustainable travel.

For robustness, the TA for the proposed development assumes that no measures are in place and that existing travel trends, with high (82%) car mode share proportions, will continue. This section has used Census journey to work data to estimate which routes trips travelling to/from the SIZ site are most likely to use. The key findings are:

- Approximately a third (32%) of trips on the A174 are likely to be travelling to/from areas accessed via the A171 towards Ormesby to the north and Guisborough and Stokesley to the south;
- Approximately 20 two-way trips are forecast to travel through the A19/A174 signalised roundabout on the way to/from site; and
- In the AM peak hour, the development could generate 86 inbound trips via the A19. Of these trips, 72% would be travelling from areas to the north. A reverse trend is seen in the PM peak hour.

HE has provided the outcomes of a GraHAM analysis which suggests that there will be fewer trips on the A66/A19 and a greater number of trips on local routes and the A1085, A1046 and A174. As the western access is to be signposted as the main access into the development, it is considered likely that many trips from the south will still use the A66 as the quickest route as indicated by the Google route

analysis. The differences in assignment are therefore not considered to alter the overall conclusions of the assessment.

4 Greystones Roundabout Impact Assessment

4.1 Introduction

The TA submitted for the planning application (reference number R/2020/0357/OOM) assessed all junctions where the impact of the development traffic was greater than 10%. At the Greystones Roundabout, development trips would amount to an increase in AM peak hour trips of approximately 5%. However, given the quantity of trips was greater than 30, HE requested that the impact on the Greystones Roundabout be assessed.

4.2 Background Data

The operation of the junction has been reviewed previously and to provide some context, HE provided the following documents:

- A174 / A1053 Greystone Road / B1380 High Street MOVA Design and VISSIM Modelling Report produced by WSP in 2017;
- A174, Greystones Impact Assessment Report produced by Integrated Traffic Services Ltd in 2017;
- Traffic Signals Layout of A174 / A1053 Greystones Roundabout, Drawing number HE550469-WSP-HEL-A174GREYSTONE-DR-LE-00003 produced by WSP for Highways England in 2017; and
- General Arrangement Drawing of A174 / A1053 Greystones Roundabout, Drawing number HE550469-WSP-GEN-A174GREYSTONE-DR-Z-00002 produced by WSP for Highways England in 2017.

A summary of the two report's findings is provided below.

4.2.1 Greystones MOVA Design and VISSIM Modelling Report, WSP 2017

This 2017 report by WSP assesses the proposed traffic signal design of the junction. The report identifies potential design improvements, both physical and operational changes, to allow it to perform more efficiently for future demand. The junction was modelled in LinSig. The modelling of the existing junction reported queues on the A174 north-east exit, and possible entry blocking through the roundabout.

A revised design with four lanes between the A1053 entry and the A174 north-east exit was tested in LinSig and all lanes operated under capacity, with minimal risk of entry blocking. The revised design was implemented in VISSIM to develop a MOVA operational strategy for design. The four lane design was found to operate well in the 2033 future year scenario with reduced delays and increased speed through the junction.

4.2.2 Greystones Impact Assessment Report, Integrated Traffic Services in 2017;

This report presents the results of additional VISSIM modelling for the roundabout for design Option 2A. It is not clear from the report what Option 2A comprises, but it is assumed that it features the improvements recommended in the WSP report (providing four lanes between the A1053 and A174 north-east exit).

In addition to Option 2A, the report provides the modelling results of an ‘Option 2A + improvements’. This design option includes the two lane exit from the roundabout onto the A174 north-eastbound along with alterations to other arms of the junction as shown in the plan extracted from the report and included as **Figure 10**.

Figure 10 Extract from Integrated Traffic Services, 2017, Report of Option 2A+

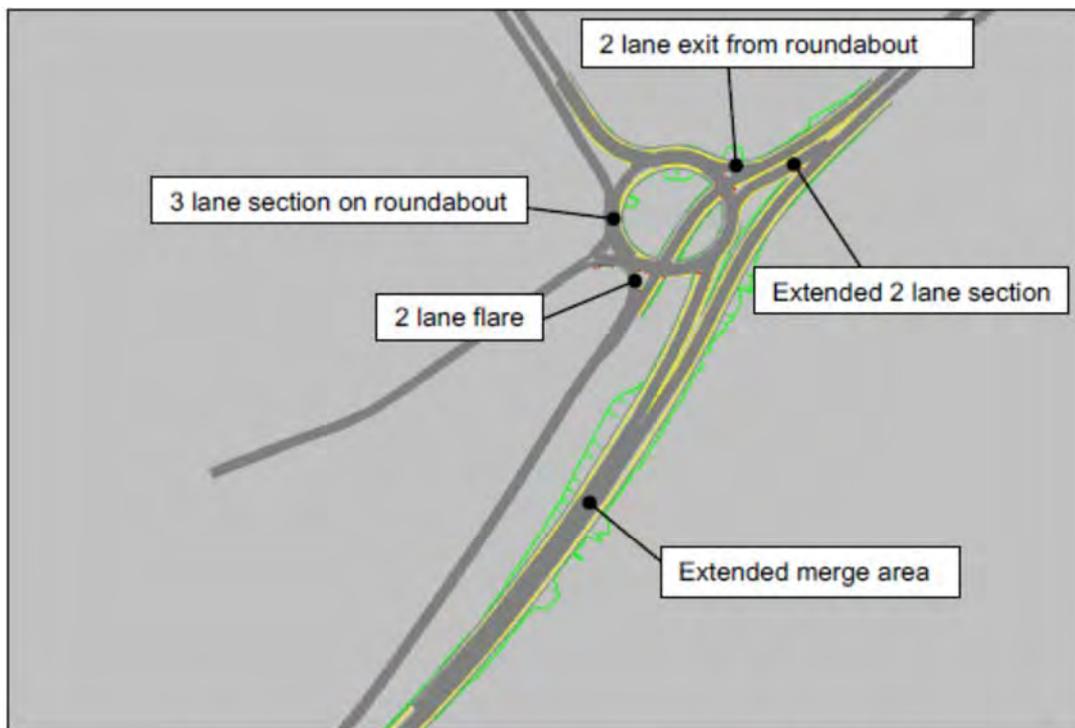


Figure 3.2: 2033 Option 2A + Improvements Key Features

The report concludes that Option 2A provides significant improvement in performance over the 2033 base. However, it also notes that further benefit can be extracted by implementing the measures tested in the Option 2A with improvements scenario.

4.3 2020 Junction Assessment

HE requested that the impact of SIZ development traffic at Greystones Roundabout be assessed. Unfortunately, the previous models of the junction could not be traced so a new model was developed in LinSig using the information provided by HE.

4.3.1 Traffic Flows and Assessment Years

The TA outlines the methodology for establishing baseline and future year assessments flows in the current (2020) circumstances given the Covid 19 pandemic. To determine the impact of the development traffic, a future assessment year of 2033 was identified because it incorporates all the of the development trips (site to be fully occupied by 2028) and coincides with the previous modelling assessments by WSP and Integrated Traffic Services.

The 2033 traffic flow matrices through the junction are shown in **Table 8** and **Table 9**. For comparison purposes, the WSP forecasts from the 2017 report are shown in brackets. The junction arms are as follows:

- A is the A1053 Greystone Road;
- B is the A174 north-east;
- C is the A174 south-west; and
- D is the B1380 High Street.

Table 8 2033 AM Peak Hour Flow Matrices (PCUs)

Arm	A – A1053	B – A174 NE	C – A174 SW	D – B1380	Total
A		262 (211)	270 (173)	6 (15)	538 (399)
B	923 (1120)		1,309 (1,508)	122 (169)	2,354 (2796)
C	529 (391)	1,106 (1,596)		138 (168)	1,773 (2155)
D	23 (59)	94 (304)	180 (108)		297 (471)
Total	1,475 (1,570)	1,462 (2,111)	1,759 (1,789)	266 (351)	4,962 (5822)

Table 9 2033 PM Peak Hour Flow Matrices (PCUs)

Arm	A – A1053	B – A174 NE	C – A174 SW	D – B1380	Total
A		759 (450)	439 (428)	14 (56)	1,212 (934)
B	256 (296)		1,278 (1,487)	132 (277)	1,666 (2,061)
C	245 (224)	1,239 (1,700)		335 (210)	1,819 (2,135)
D	29 (23)	147 (425)	129 (75)		305 (532)
Total	530 (543)	2,145 (2,586)	1,846 (1,990)	481 (543)	5,002 (5,662)

The data shows that the flows are relatively comparable except on the A174 north-east approach where the WSP 2033 flows are forecast to be significantly higher. The with development flows are shown in **Table 10** and **Table 11**. The change in trips, as a result of the SIZ development, is shown in brackets.

Table 10 2033 AM Peak Hour Flow Matrices with Development (PCUs)

Arm	A – A1053	B – A174 NE	C – A174 SW	D – B1380	Total
A		275 (+13)	282 (+12)	10 (+4)	567 (+29)
B	1059 (+136)		1309	122	2490 (+136)
C	616 (+87)	1106		138	1860 (+87)
D	35 (+12)	94	180		309 (+12)
Total	1710 (+235)	1475 (+13)	1771 (+12)	270 (+4)	5229 (+264)

Table 11 2033 PM Peak Hour Flow Matrices with Development (PCUs)

Arm	A – A1053	B – A174 NE	C – A174 SW	D – B1380	Total
A		870 (+111)	496 (+57)	24 (+10)	1390 (+178)
B	274 (+18)		1278	132	1684 (+18)
C	268 (+23)	1239		335	1842 (+23)
D	32 (+3)	147	129		308 (+3)
Total	574 (+44)	2256 (+111)	1903 (+57)	491 (+10)	5224 (+222)

4.3.2 LinSig Model Results

Using the information provided by HE, a LinSig model was developed to test the scale of impact of the development traffic on the existing junction. Signal timings and offsets were optimised. A cycle time of 60 seconds was used for both the AM and PM peak hour scenarios. The results are summarised in **Table 12** and **Table 13**.

Table 12: Greystones Roundabout LINSIG results – ‘2033 Base’ scenario

	AM peak hour			PM peak hour		
	DoS (%)	Mean Max Queue (PCU)	Delay (PCU Hr)	DoS (%)	Mean Max Queue (PCU)	Delay (PCU Hr)
JUNCTION PRC (%)	-2.7%			18.1%		
Cycle time	60 Seconds			60 Seconds		
High Street Ahead Left	81.5%	6.2	2.8	36.4%	1.3	0.3
A1053 Greystone Road Left	13.3%	0.1	0.1	38.4%	0.3	0.3
A1053 Greystone Road Ahead	14.1%	0.1	0.1	23.1%	0.2	0.2
A174 SB Ahead	92.5%	11.8	7.3	76.2%	5.2	3.1
A174 SB Ahead	54.4%	6.7	2.2	47.5%	2.8	1.4
A174 NB Left Left2	73.6%	10.3	3.7	45.6%	4.8	1.1
A174 NB Left	78.1%	9.3	5.2	74.4%	8.1	3.0

Table 13: Greystones Roundabout LINSIG results – ‘2033 Base + Development Flows’ Scenario

	AM peak hour			PM peak hour		
	DoS (%)	Mean Max Queue (PCU)	Delay (PCUhr)	DoS (%)	Mean Max Queue (PCU)	Delay (PCUhr)
JUNCTION PRC (%)	-4.9%			18.1%		
Cycle time	60 Seconds			60 Seconds		
High Street Ahead Left	86.0%	6.3	3.9	37.8%	1.5	0.4
A1053 Greystone Road Left	13.9%	0.1	0.1	44.1%	0.4	0.4
A1053 Greystone Road Ahead	14.9%	0.1	0.1	26.5%	0.2	0.2
A174 SB Ahead	94.4%	14.7	9.5	76.2%	5.1	3.0
A174 SB Ahead	72.1%	9.7	3.7	48.1%	3.0	1.5
A174 NB Left Left2	87.0%	14.2	6.2	48.6%	5.3	1.3
A174 NB Left	80.9%	9.8	6.1	76.2%	8.7	3.4

The junction modelling shows that in 2033, the junction is likely to be operating above theoretical capacity in the AM peak hour, before any development traffic is added with a negative Practical Reserve Capacity (PRC). A negative PRC value indicates that the junction is over capacity.

Only a slight change in PRC is observed when including the development flows, and the Degree of Saturation (DoS) on each link shows the links will still operate below theoretical capacity. The highest DoS % is on the A174 southbound arm. This junction arm benefits from a filter lane onto the A174 however it has to merge with traffic exiting the junction. With development traffic, the DoS increases to 94.4% from 92.5% in the base.

In the PM peak, the junction shows a similar level of operation before and after the development flows are added. There is no change in the overall PRC between the base and with development scenario.

4.3.3 Junction Improvements

The proposed junction improvements, included in the WSP and Integrated Traffic Services reports, have not been modelled. The model outputs on the existing design validate previous assessments that indicate that the junction has capacity issues in the 2033 base, before the addition of development traffic.

The outputs provided demonstrate the isolated impact of this development only, and show that the development flows do not significantly impact on the base operation of the junction. It is however acknowledged that the proposed improvements would benefit the development traffic by providing additional capacity and reducing delays at the junction. In particular, the proposed improvements in the Intergrated Traffic Services report, which proposes to extend the merge length on the A174 southbound, would ease the issue seen on this exit of the junction.

4.3.4 Alternative Distributions

HE provided a Technical Memorandum on 27 August 2020 outlining the results of a GraHAM analysis of SIZ development trips. The GraHAM tool uses a combination of MS Excel and GIS to undertake analysis of future development using 2011 Census Travel to Work data.

The GraHAM analysis provided by HE (see **Section 3.5**) suggests that an additional 55 trips could travel through the Greystones Roundabout junction in the AM peak and an additional 86 trips could travel through the junction in the PM peak, based on the GraHAM assignment. The assignment increases trips on the A174 to/from the east but reduces trips travelling to/from the west on the A174. The reduction of trips on the A174 west of the junction is likely to assist the junction operation as it would reduce traffic on the A174 southbound. Furthermore, the greater difference (increase) in trips forecast to be travelling through the junction by the GraHAM analysis is in the PM peak, when the junction has more spare capacity.

There was not time before publication of this report to run the GraHAM flows through the Greystones Roundabout model. On balance, it is unlikely that alterations to the distribution would change the conclusion of the assessment given that the junction is operating above capacity in the base. The various modelling sources indicate that improvements are required by 2033.

4.4 Greystones Roundabout Assessment Summary

The background information provided indicates that stakeholders are aware of capacity issues at the junction and options have been developed to increase the capacity of the roundabout. An isolated assessment of the impact of the SIZ development, in 2033, indicates that the development trips will only negligibly exacerbate the existing issues. All arms of the junction are still forecast to operate within capacity.

Appendix A

Fore Consulting -
Middlesbrough Transport Model

Applicant / Developer Information		
Applicant / Developer:	Arup	
Primary Contact Name:		
Contact Telephone Number:		
Contact Email Address:		
Site Details		
Site Name:	Land at South Tees Development Corporation	Please provide a site location plan.
Planning Application Reference:	R/2020/0357/OOM	If a planning application has not yet been submitted, please specify N/A.
Planning Use Class:	B2 General Industrial	
Description of Development:	Development of General Industry (B2) and storage or distribution use (B8) with office accommodation (B1)	https://lichfields.uk/media/2913/guide-to-use-classes-order-in-england.pdf
Development Quantum:	418,000sqm	Please specify units.
Summary of Proposals:	Development of up to 418,000sqm of general industry (B2) and storage or distribution use (B8) with office accommodation (B1). All matters reserved other than access	Please provide a site location plan (as above) and detailed site layout plan / masterplan, if available.
Site Access		
Number of Vehicular Access Points Proposed:	2	
Site Access 1 (Screenline 1)		
Proposed / Reconfigured / Existing:	Existing junction - no changes required	
Proposed Access Arrangement:	Existing priority controlled roundabout	
Summary of Site Access:	Screenline 1 - trips in/out Middlesbrough on A66/Dockside Rd	
Location of Site Access Arrangement:	A66/Dockside Road	
Designed:	No	If designed, please provide a copy in .dwg format. If not yet designed, a description of the changes and / or proposed junction should be provided.
Site Access 2 (Screenline 2)		
Proposed / Reconfigured:	Existing junction - no changes required	If only one access, please specify N/A.
Proposed Access Arrangement:	Existing priority controlled junction	
Summary of Site Access:	Screenline 2 - trips in/out Middlesbrough via A174	
Location of Site Access Arrangement:	A174 Greystones Roundabout	
Designed:	No	If designed, please provide a copy in .dwg format. If not yet designed, a description of the changes and / or proposed junction should be provided.
Site Access 3		
Proposed / Reconfigured:	N/A	If only one access, please specify N/A.
Proposed Access Arrangement:	N/A	
Summary of Site Access:		
Location of Site Access Arrangement:		
Designed:	No	If designed, please provide a copy in .dwg format. If not yet designed, a description of the changes and / or proposed junction should be provided.
Site Access 4		
Proposed / Reconfigured:	N/A	If only one access, please specify N/A.
Proposed Access Arrangement:	N/A	
Summary of Site Access:		
Location of Site Access Arrangement:		
Designed:	No	If designed, please provide a copy in .dwg format. If not yet designed, a description of the changes and / or proposed junction should be provided.
Traffic Assessment:		
Transport Assessment or Transport Statement:	Yes	If prepared, please provide a copy.
Vehicle Trip Generation:	Yes	If no, an assessment of the impacts will be undertaken by Fore using generic trip rates derived from the TRICS database or agreed with Middlesbrough Council.
Trip Generation Methodology:	TRICS Database - person trip rates + mode share.	If other, please specify. If the TRICS database or a site survey has been undertaken, a copy of this information should be provided.
Vehicle Trip Rates and Vehicle Trip Generation		
AM Assessment Period		
Arrivals_07:30 - 08:30:	647.000	
Departures_07:30 - 08:30:	222.000	
Total_07:30 - 08:30:	869.000	
Arrivals_08:30 - 09:30:	569.000	
Departures_08:30 - 09:30:	248.000	
Total_08:30 - 09:30:	817.000	
IP Assessment Period		
Arrivals_12:00 - 13:00:	347.000	
Departures_12:00 - 13:00:	482.000	
Total_12:00 - 13:00:	829.000	
Arrivals_13:00 - 14:00:	524.000	
Departures_13:00 - 14:00:	465.000	
Total_13:00 - 14:00:	989.000	
PM Assessment Period		
Arrivals_16:00 - 17:00:	219.000	
Departures_16:00 - 17:00:	517.000	
Total_16:00 - 17:00:	736.000	
Arrivals_17:00 - 18:00:	167.000	
Departures_17:00 - 18:00:	618.000	
Total_17:00 - 18:00:	785.000	
Site Access 1 (Screenline 1)		
Arrivals_07:30 - 08:30:	568	
Departures_07:30 - 08:30:	213	
Total_07:30 - 08:30:	781	
Arrivals_08:30 - 09:30:	499	
Departures_08:30 - 09:30:	239	
Total_08:30 - 09:30:	738	
Total Arrivals_07:30 - 09:30:	1067	
Total Departures_07:30 - 09:30:	452	
IP Assessment Period		
Arrivals_12:00 - 13:00:	304	
Departures_12:00 - 13:00:	461	
Total_12:00 - 13:00:	765	
Arrivals_13:00 - 14:00:	460	
Departures_13:00 - 14:00:	446	
Total_13:00 - 14:00:	906	
Total Arrivals_12:00 - 14:00:	764	
Total Departures_12:00 - 14:00:	907	
PM Assessment Period		
Arrivals_16:00 - 17:00:	194	
Departures_16:00 - 17:00:	472	
Total_16:00 - 17:00:	666	
Arrivals_17:00 - 18:00:	148	
Departures_17:00 - 18:00:	563	
Total_17:00 - 18:00:	711	
Total Arrivals_16:00 - 18:00:	342	
Total Departures_16:00 - 18:00:	1035	
Site Access 2 (Screenline 2)		
Arrivals_07:30 - 08:30:	80	
Departures_07:30 - 08:30:	9	
Total_07:30 - 08:30:	89	
Arrivals_08:30 - 09:30:	70	
Departures_08:30 - 09:30:	9	
Total_08:30 - 09:30:	79	
Total Arrivals_07:30 - 09:30:	150	
Total Departures_07:30 - 09:30:	18	
IP Assessment Period		
Arrivals_12:00 - 13:00:	43	
Departures_12:00 - 13:00:	20	
Total_12:00 - 13:00:	63	
Arrivals_13:00 - 14:00:	64	
Departures_13:00 - 14:00:	20	
Total_13:00 - 14:00:	84	
Total Arrivals_12:00 - 14:00:	107	
Total Departures_12:00 - 14:00:	40	
PM Assessment Period		
Arrivals_16:00 - 17:00:	25	
Departures_16:00 - 17:00:	46	
Total_16:00 - 17:00:	71	
Arrivals_17:00 - 18:00:	19	
Departures_17:00 - 18:00:	54	
Total_17:00 - 18:00:	73	
Total Arrivals_16:00 - 18:00:	44	
Total Departures_16:00 - 18:00:	100	
Site Access 3		
Arrivals_07:30 - 08:30:	0	
Departures_07:30 - 08:30:	0	
Total_07:30 - 08:30:	0	
Arrivals_08:30 - 09:30:	0	
Departures_08:30 - 09:30:	0	
Total_08:30 - 09:30:	0	
Total Arrivals_07:30 - 09:30:	0	
Total Departures_07:30 - 09:30:	0	
IP Assessment Period		
Arrivals_12:00 - 13:00:	0	
Departures_12:00 - 13:00:	0	
Total_12:00 - 13:00:	0	
Arrivals_13:00 - 14:00:	0	
Departures_13:00 - 14:00:	0	
Total_13:00 - 14:00:	0	
Total Arrivals_12:00 - 14:00:	0	
Total Departures_12:00 - 14:00:	0	

Arup
Land at South Tees Development Corporation

Aimsun Modelling Report

26 August 2020
Version 0.1
Draft





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1 Introduction

1.1 Background

In 2019, Fore Consulting Limited (“Fore”) developed a new highway model (“Middlesbrough Transport Model”) for the local authority area on behalf of Middlesbrough Council. The model comprises a combination of wide-area macroscopic modelling and individual microsimulation subnetworks so that both the strategic and detailed local impacts of growth, developments and highway improvements can be properly assessed through a combination of macroscopic and microscopic modelling.

1.2 Base Model Development

1.2.1 Study Area

The Middlesbrough Transport Model covers the entire Local Authority area, bound to the north by the River Tees, to the east by the A171 Cargo Fleet Lane corridor, to the south by the A1043, Brass Castle Lane and Stainton Way and to the west by the A19.

The main study area for the model includes the whole Middlesbrough Local Authority area. This area has been modelled at macroscopic level. This area has been divided into six microsimulation subnetworks, which includes the three existing microsimulation models as subnetworks as well as three new microsimulation subnetworks.

A summary of the six microsimulation subnetworks are set out as follows:

- **Subnetwork 1 (Middlesbrough Central):** a model covering the central area of Middlesbrough bounded by the River Tees to the north and Borough Road and Newport Road to the south. The A66 runs through the model area from the Newport Interchange in the west to the A66 / Borough Road junction in the east.
- **Subnetwork 2 (A171 Cargo Fleet Lane Corridor):** a model covering the A171 Cargo Fleet Lane corridor from the A66 Cargo Fleet Lane roundabout in the north to A171 Cargo Fleet Lane / B1380 High Street / Sunnyfield roundabout in the south.
- **Subnetwork 3 (A172 Marton Road Corridor):** a model covering the A172 Marton Road corridor from the Belle Vue roundabout in the north to the A172 Dixons Bank / Guisborough Road junction in the south.
- **Subnetwork 4 (Ormesby Road Corridor):** a model covering the Ormesby Road corridor in central Middlesbrough. The model extends from A1085 Longlands Road in the north to B1380 Ladgate Lane in the south.

- **Subnetwork 5 (B1272 Linthorpe Road Corridor):** a model covering the B1272 Linthorpe Road corridor and suburban area of Linthorpe in south Middlesbrough. The model is bound by the B1272 Linthorpe Road / Borough Road junction in the north, the Marton Burn Road / Keith Road junction to the east and A1032 Acklam Road to the west. Green Lane runs along the southern boundary of the model area.
- **Subnetwork 6 (Middlesbrough West):** a model covering a large area of south Middlesbrough, extending from the A19 and B1380 Low Lane in the west to Stainton Way in the east. The model also includes the A1032 Acklam Road corridor travelling northwards, as well as B1380 Ladgate Lane and the A174.

1.2.2 Modelled Year and Time Periods

The macroscopic model has been developed to be representative of typical conditions in the year 2019 during the following time periods:

- **AM peak hour:** 08:00 to 09:00 hours.
- **Inter peak hour:** 12:30 to 13:30 hours.
- **PM peak hour:** 16:30 to 17:30 hours.

The microscopic model has been developed to be representative of typical conditions in the year 2019 during the following time periods.

- **AM peak period:** 07:30 to 09:30 hours.
- **Inter peak period:** 12:00 to 14:00 hours.
- **PM peak period:** 16:00 to 18:00 hours.

1.2.3 User Classes

The following user classes are included in the model:

- Cars.
- Light goods vehicles (LGVs).
- Heavy goods vehicles (HGVs).

In addition, all public transport services have been explicitly coded into the model using published timetable information.

1.3 Base Model Calibration and Validation

The base model has been calibrated and validated to meet all relevant criteria set out by TAG Unit M3.1¹. This is documented in full in the corresponding Model Validation Report², which can be provided on request.

1.4 Commission

Following the development of the Middlesbrough Transport Model, Fore have been appointed by Arup to undertake microsimulation Aimsun modelling of proposals to redevelop an area of land at the South Tees Development Corporation (STDC) site, Redcar.

The proposed development seeks to provide up to 418,000 sqm of general industry (Planning Use Class B2) and storage and distribution facilities (Planning Use Class B8), with ancillary office accommodation, HGV and car parking, and associated works.

1.5 Purpose of this Report

This report sets out the methodology adopted in developing the future year scenarios and describes the data that has been outputted from the model and provided to the applicant and Middlesbrough Council.

1.6 Report Structure

This report is structured as follows:

- Section 2 sets out a summary of the do minimum Aimsun modelling methodology and the approach taken to derive the future year matrices.
- Section 3 sets out a summary of the proposed development including a description of the site location, existing situation and proposed access arrangements.
- Section 4 sets out a summary of the modelling methodology and the approach taken to derive the do something future year matrices associated with the proposed development.
- Section 5 presents and discusses the results of the Aimsun Modelling.

¹ TAG Unit M3.1, *Highway Assignment Modelling*, Department for Transport, 2014. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/427124/wbtag-tag-unit-m3-1-highway-assignment-modelling.pdf

² *Model Validation Report (Issue v1.0)*, *Middlesbrough Transport Model*, Fore Consulting Limited, 2019.

-
- Section 6 summarises the findings of the Aimsun modelling.

2 Do Minimum Aimsun Modelling Methodology

2.1 Introduction

This section sets out a summary of the do minimum Aimsun modelling methodology and the approach taken to derive the future year matrices.

2.2 Future Assessment Year Scenarios

It has been agreed with Middlesbrough Council that the following future assessment year scenarios are to be developed:

- 2020 Future Assessment Year Scenario.
- 2025 Future Assessment Year Scenario.
- 2030 Future Assessment Year Scenario.

2.3 Committed Development

2.3.1 Committed Development Sites

Traffic demand matrices have been developed for each do minimum future assessment year scenario to include all relevant committed developments that are likely to have an impact on the local highway network. Given that the committed development sites included in the model are at varying levels of development, Middlesbrough Council have provided details of the estimated current level of occupation at each site based on an estimated residential build out rate of 35 dwellings per year. On this basis, the trip generation for these sites can be adjusted to take into account that some of the traffic generated by these sites will already be on the network and accounted for in the 2019 base traffic demand matrices. Given that these estimates were provided in 2018, the current level of occupation has been adjusted accordingly.

The committed development sites included in the model, the estimated current level of occupation for each site, and the remainder to be built and occupied, is set out in Table 1 and Table 2, overleaf, for residential and employment sites respectively.

**Table 1: Level of Occupation of Committed Development Sites – Residential**

Planning Application	Planning Application Reference	Ref.	Number of Dwellings (Units: Dwellings)		
			Committed Development	Current Level of Occupation	Remaining to be Built / Occupied
Police Headquarters, Ladgate Lane, Middlesbrough	M/OUT/0173/11/P	01	479	118	361
Stainsby Hall Farm, Brookfield, Middlesbrough	M/FP/0572/11/P	02	642	333	309
Land at Stainsby Hall Farm, Middlesbrough	17/0045/FUL				
Grey Towers, Nunthorpe, Middlesbrough	18_0060_FUL	03	408	157	251
Land at Hemlington Grange, Middlesbrough	M/FP/0082/16/P + M/FP/0082/16/P	04	1,230	70	1,160
Clairville Road, Middlesbrough	M/FP/0977/13/P	05	153	116	37
Land to Rear of 50 - 60 Hutton Road, Middlesbrough	17/0585/OUT	06	28	0	28
Former Sports Ground, Hutton Road, Middlesbrough	18/0247/FUL	07	86	0	86
Bishopton Road, Middlesbrough	17/0895/FUL	08	92	0	92
Former Tennis World, Marton Road, Middlesbrough	17/0895/FUL	09	23	0	23
Former MTLC Complex, Cargo Fleet Lane, TS3 8PE + Land Adjacent MTLC Cargo Fleet Lane, Middlesbrough,	M/FP/0692/1/P + M/FP/0174/14	14	170	114	56
Land Bounded by Ormesby Bank, Guisborough Road and Rothesay Grove, Nunthorpe, Middlesbrough	R/2016/0142/FFM	15	128	105	23
Longbank Farm, Farmbank Road, Ormesby, Middlesbrough	R/2014/0816/RSM	16	320	0	320
Phase 2, Prissick Base, Brackenhoe Site, Middlesbrough	M/RG/0899/13/P	17	350	0	350
Prissick Base, Ladgate Lane, Marton Avenue, Middlesbrough	18/0477/OUT	18	72	0	72
Land off Sussex Street and Gosford Street, Middlesbrough	19/0203/FUL	19	40	0	40



Planning Application	Planning Application Reference	Ref.	Number of Dwellings (Units: Dwellings)		
			Committed Development	Current Level of Occupation	Remaining to be Built / Occupied
Land at Roworth Road, Middlesbrough	18/0643/FUL	20	89	0	89
Plymouth Brethren, Middlesbrough,	18/0778/OUT	21	7	0	7
Acklam Gardens, Middlesbrough	M/FP/1956/04/P + M/FP/1257/14/P	22	454	70	384
Land to the South of College Road, Middlesbrough	17/0347/FUL	23	106	0	106
Total			4,877	1,083	3,794

Table 2: Level of Occupation of Committed Development Sites – Employment

Planning Application	Planning Application Reference	Ref.	Floor Area (Units: Sqm)		
			Committed Development	Current Level of Occupation	Remaining to be Built / Occupied
Land at Hemlington Grange, Middlesbrough	M/FP/0082/16/P	04	23,000	0	23,000
Land to South of Scotts Road, Middlesbrough	16/5068/OUT	10	19,568	0	19,568
Land at Central Gardens, Middlesbrough	17/0195/OUT	11	18,537	0	18,537
Riverside Park Industrial Estate, Ferrous Road, Middlesbrough	18/0308/FUL	12	23,740	0	23,740
Gateway Middleshaven Between A66 and Riverside Stadium, Cargo Fleet, Middlesbrough	M/FP/0773/13/P	13	11,528	0	11,528
Total			96,373	0	96,373

2.3.2 Committed Development Vehicle Trip Generation

The vehicle trip generation of the committed development sites has been calculated using the methodology set out below:

- If a Transport Assessment has been prepared, the corresponding vehicle trip rates have been sourced from Middlesbrough Council's online planning application search facility.
- For trip rates associated with the hours outside those referenced as part of a Transport Assessment (for example the inter peak period), a first principles approach has been adopted. This has been undertaken by deriving a factor from the TRICS (v7.5.3) database, which has then been applied to the vehicle trip rates set out in the relevant Transport Assessment.
- Where a Transport Assessment has not been prepared, vehicular trip rates have been sourced from the TRICS (v7.5.3) database.

Full details of the approach used to derive the vehicle trip generation of each site is provided in the Forecasting Report.

2.3.3 Committed Development Phasing

Through discussions with Middlesbrough Council, a committed development phasing schedule has been agreed in order to accurately forecast future year traffic flows on the network in the 2020, 2025 and 2030 future assessment year scenarios.

Where the opening year is not referenced as part of the Transport Assessment, a build out rate of 35 dwellings per year has been adopted for residential development. A summary of the committed development phasing schedule for each future assessment year scenario is provided in Table 3, overleaf.

Table 3: Estimated Committed Development Phasing Schedule

Application Name	Estimated Committed Development Phasing Schedule		
	2020	2025	2035
Police Headquarters, Ladgate Lane, Middlesbrough	75%	100%	100%
Stainsby Hall Farm, Brookfield, Middlesbrough	25%	50%	100%
Land at Stainsby Hall Farm, Middlesbrough			
Grey Towers, Nunthorpe, Middlesbrough	0%	50%	100%
Land at Hemlington Grange, Middlesbrough	25%	50%	100%
Clairville Road, Middlesbrough	25%	50%	100%
Land to Rear of 50 - 60 Hutton Road, Middlesbrough	75%	100%	100%
Former Sports Ground, Hutton Road, Middlesbrough	75%	100%	100%
Bishopton Road, Middlesbrough	75%	100%	100%
Former Tennis World, Marton Road, Middlesbrough	75%	100%	100%
Former MTLC Complex, Cargo Fleet Lane, TS3 8PE + Land Adjacent MTLC Cargo Fleet Lane, Middlesbrough,	75%	100%	100%
Land Bounded by Ormesby Bank, Guisborough Road and Rothesay Grove, Nunthorpe, Middlesbrough	100%	100%	100%
Longbank Farm, Farbank Road, Ormesby, Middlesbrough	25%	50%	100%
Phase 2, Prissick Base, Brackenhoe Site, Middlesbrough	25%	50%	100%
Prissick Base, Ladgate Lane, Marton Avenue, Middlesbrough	0%	100%	100%
Land off Sussex Street and Gosford Street, Middlesbrough	75%	100%	100%
Land at Roworth Road, Middlesbrough	75%	100%	100%
Plymouth Brethren, Middlesbrough,	100%	100%	100%
Acklam Gardens, Middlesbrough	9%	55%	100%
Land to the South of College Road, Middlesbrough	25%	100%	100%
Land at Hemlington Grange, Middlesbrough	25%	50%	100%
Land to South of Scotts Road, Middlesbrough	100%	100%	100%
Land at Central Gardens, Middlesbrough	100%	100%	100%
Riverside Park Industrial Estate, Ferrous Road, Middlesbrough	0%	0%	100%
Gateway Middleshaven Between A66 and Riverside Stadium, Cargo Fleet, Middlesbrough	100%	100%	100%

Based on the above, a summary of the additional vehicle trips included in the do minimum traffic demand matrices is set out in Table 4, below.

Table 4: Do Minimum Traffic Demand Matrices

Time Period	Do Minimum Traffic Demand Matrices (Units: Vehicles)		
	2020	2025	2030
07:30 - 09:30	975	1,728	2,892
12:00 - 14:00	1,127	1,679	2,653
16:00 - 18:00	1,351	2,152	3,363

2.3.4 Committed Development Vehicle Trip Distribution

The zone structure for the model is based on Office for National Statistics (ONS) geographies, which allows aggregation / disaggregation to other ONS geographies and NTEM zones as well as being able to easily use census-based demographic data within the model.

As the model is run at both macroscopic and microscopic levels, it is necessary to have a relatively fine grain zoning system commensurate with the level of detail present within the microsimulation modelling. Across the full model, the zoning system for the model has been based on Census Output Areas (OAs). Because OAs cover areas of broadly equal residential population, this results in some fairly large zones where residential development is limited, such as Middlesbrough town centre, Middlehaven, the northern extent of A171 Cargo Fleet Lane and an area of Coulby Newham close to the Parkway Shopping Centre and The King’s Academy. As such, the zoning in these areas has been further disaggregated using Workplace Zones (WZs), which are areas with broadly equal workplace populations but have boundaries that are consistent with OAs.

As such, the vehicle trip distribution of each committed development site included in the model has been estimated using the NOMIS “*WF01BEW - Location of Usual Residence and Place of Work (OA) Level*” dataset. In this way, committed development trips are distributed accordingly to the OAs/WZs within the model or to external zones.

2.4 NTM / TEMPro Traffic Growth Factors

2.4.1 Cars and LGVs

NTM/TEMPro (TEMPro v7.2 / NTM AF15 Dataset) locally-adjusted traffic growth factors have been applied to baseline car and LGV trips for all future assessment year scenarios.



Given that the committed development sites outlined above represent a significant amount of future residential and employment provision in Middlesbrough, alternative planning assumptions have been applied in TEMPro.

This has been done by reducing the future housing and job projections for the Middlesbrough district based on the projected number of residential dwellings and jobs expected to be delivered within the extent of the Aimsun model as a result of each respective committed development site. This approach will avoid the double-counting of traffic on the basis that the excluded sites are calculated explicitly as set out at section 2.3 of this report.

With reference to committed development phasing schedule set out in Table 3, a summary of the projected number of residential dwellings and jobs expected to be delivered in Middlesbrough, including the estimated year of delivery, is set out in Table 5, below.

Table 5: Estimated Residential and Job Creation Summary

Future Assessment Year Scenario	Dwellings Built	Jobs Created
2020	1,203	2,784
2025	2,367	3,229
2030	3,679	4,837

It should be noted that where the projected number of jobs created is unknown, this has been calculated in accordance with the Employment Density Matrix included in the Homes and Communities Agency Employment Density Guide³.

Having regard to the content of Table 5, locally-adjusted traffic growth factors have been sourced from NTM/TEMPro based on based on the criteria set out in Table 6, overleaf.

³ *Employment Density Guide (3rd Edition)*, Homes and Communities Agency, 2015. Available online at: https://www.kirklees.gov.uk/beta/planning-policy/pdf/examination/national-evidence/NE48_employment_density_guide_3rd_edition.pdf

Table 6: NTM / TEMPro Search Criteria

Result Type	Trip ends by time period
Area Definition	Middlesbrough
Base Year	2019
Future Year	2020 / 2025 / 2030
Trip Purpose	All purposes
Area Type	All
Road Type	All
Transport Mode	Car driver
Trip end Type	Origin/Destination

The resulting TEMPro traffic growth factors are set out in Table 7 to Table 9, below. A copy of the TEMPro output is provided as part of the Forecasting Report.

Table 7: NTM / TEMPro Locally Adjusted Traffic Growth Factor – 2019 – 2020

Peak Period	NTM / TEMPro Traffic Growth Factor
Weekday AM Peak Period (07:00-09:59)	0.9834
Weekday Inter Peak Period (10:00-15:59)	0.9807
Weekday PM Peak Period (16:00-18:59)	0.9821

Table 8: NTM / TEMPro Locally Adjusted Traffic Growth Factor – 2019 – 2025

Peak Period	NTM / TEMPro Traffic Growth Factor
Weekday AM Peak Period (07:00-09:59)	1.0077
Weekday Inter Peak Period (10:00-15:59)	1.0042
Weekday PM Peak Period (16:00-18:59)	1.0032

Table 9: NTM / TEMPro Locally Adjusted Traffic Growth Factor – 2019 – 2030

Peak Period	NTM / TEMPro Traffic Growth Factor
Weekday AM Peak Period (07:00-09:59)	1.0292
Weekday Inter Peak Period (10:00-15:59)	1.0263
Weekday PM Peak Period (16:00-18:59)	1.0235

As set out in Table 7, the methodology adopted results in a negative growth factor for the 2020 future assessment year scenario. This is because the forecast housing growth in TEMPro is lower than that that forecast to be delivered in Middlesbrough by 2020 as a

result of committed development sites. Therefore, in order to ensure a robust assessment, it is assumed that there would be no growth in baseline traffic (cars and LGVs) between 2019 and 2020.

2.4.2 HGVs

Background traffic growth for HGVs has been estimated using the Road Traffic Forecast (RTF) reference scenario⁴. This forecast projects traffic growth rates from a 2015 base year, broken down by vehicle type, region and road type.

HGV traffic in billion vehicle miles (bvm) was interpolated for 2019 from this dataset for the North East region on all road types. This base figure was then used to derive growth factors for HGVs for each future assessment year scenario, as presented in Table 10, below.

10: Road Traffic Forecast – HGV Growth Factors (North East Region)

Future Assessment Year Scenario	RTF Factor
2020	0.9971
2025	0.9941
2030	0.9944

2.5 Committed Highway Schemes and Infrastructure

The committed highway schemes and infrastructure included in the do minimum model are set out in Table 11, overleaf.

⁴ Road Traffic Forecast Reference Scenario, Department for Transport, 2018. Available online at: <https://www.gov.uk/government/publications/road-traffic-forecasts-2018>

Table 11: Committed Highway Schemes and Infrastructure

Committed Highway Scheme / Infrastructure	Description of Changes	Projected Opening Year
A172 Dixons Bank Scheme	The widening of the existing carriageway on A172 Dixons Bank and Stainton Way to create two lanes on the northbound and eastbound approaches to the junction.	2020
Stockton Street / Bridge Street Scheme	Realignment and creation of new signal-controlled junction with pedestrian /cycle facilities at North Street / Stockton Street / Bridge Street West.	2020
Windward Way Extension Scheme	New link from Windward Way to Lower Feversham Street, including a new toucan crossing on Dock Street and a new three arm signal-controlled junction at Lower Feversham Street / Cleveland Street.	2020
A66 / A171 Cargo Fleet Lane Thoroughabout	Creation of new signal-controlled thoroughabout and at the A66 / A171 Cargo Fleet Lane junction.	2020
A171 Cargo Fleet Lane / South Bank Road Scheme	Creation of new signal-controlled junction at the A171 Cargo Fleet Lane / South Bank Road junction.	2025

2.6 Traffic Signal Optimisation

Each microsimulation subnetwork has been observed carefully to check that they are working correctly, with particular consideration given to traffic-signal controlled junctions in each respective do minimum scenario. In virtue of the nature of microsimulation models and the growth in traffic across the network, some signal timings at key junctions have been optimised to accommodate the changes in future year traffic flows across the network. These changes are documented in full in the Forecasting Report⁵.

⁵ Middlesbrough Transport Model, Model Forecasting Report (Draft v0.1), Fore Consulting Limited, 2019.

3 Development Proposals

3.1 Introduction

This section sets out a summary of the proposed development including a description of the site location, existing situation and proposed access arrangements.

3.2 Site Location

The application site, which is currently vacant, is located within the STDC area and makes up part of the area known as the South Industrial Zone (SIZ) and extends to an area of approximately 174 hectares. The site's history includes iron and steel industries, and the storage of material and freight rail infrastructure uses. The site is located on the south bank of the River Tees, approximately 7.0km to the west of Redcar town centre and 4.5km to the east of Middlesbrough town centre.

The site is bordered by the River Tees to the north, Smith's Dock Road to the west, local access roads that run parallel to the railway line to the south, and the MGT site, currently under construction, to the east. Industrial estates are located to the west and to the south of the site, and the Prairie site is also located to the immediate south of the site. Residential areas are located to the south of the A66 in the vicinity of the site.

An indicative site plan is provided at Appendix A.

3.3 Aimsun Model Extent

Given that the model covers the Middlesbrough Local Authority area only, the location of the site is located beyond the extent of the model area. As such, the site has been treated as an external zone to the model and the trip generation of the site (see section 4) has been adjusted to reflect the likely origin and destination of trips to and from Middlesbrough.

3.4 Development Proposal

The proposed development seeks to provide up to 418,000 sqm of general industry (Planning Use Class B2) and storage and distribution facilities (Planning Use Class B8), with ancillary office accommodation, HGV and car parking, and associated works.

First occupancy of the development will be in 2023, with the site fully occupied by 2028. When fully operational, the site is expected to accommodate approximately 3,870 employees.

3.5 Proposed Access Arrangements

Two vehicular accesses into the site will be provided to disperse trips across the network. The main access into the site will be via the new roundabout junction which has been constructed at the junction of Smith's Dock Road and Dockside Road. The roundabout has been constructed to serve the STDC Regeneration Masterplan and facilitate access into the SIZ. There is also a secondary access provided on the eastern boundary of the site which connects to Tees Dock Road.

It should be noted that the location of the proposed site access points to serve the development are located beyond the extent of the Aimsun model and as such are not coded explicitly into the model.

4 Do Something Aimsun Modelling Methodology

4.1 Introduction

This section sets out a summary of the modelling methodology and the approach taken to derive the do something future year matrices associated with the proposed development.

4.2 Vehicle Trip Generation

The vehicle trip generation of the site has been provided by Arup for the following time periods:

- **AM peak period:** 07:30 - 09:30 hours.
- **Inter peak period:** 12:00 - 14:00 hours.
- **PM peak hour:** 16:00 to 18:00 hours.

Given that the site is located outside of the extent of the Aimsun model, it should be noted that not all vehicle trips will impact upon the model area. As such, the vehicle trip generation used for the purpose of this assessment includes trips that have an impact upon the Middlesbrough Local Authority area only.

This has been calculated from the accompanying Transport Assessment⁶ prepared by Arup and has been adjusted on the basis of the likely origin and destination of trips travelling to and from the Middlesbrough Local Authority area. On the basis of the vehicle trip distribution model developed by Arup, it was determined that the origin and destination of trips within the model study area is as follows:

- **Origin / Destination A:** Trips to and from Dockside Road.
- **Origin / Destination B:** Trips to and from the A66.
- **Origin / Destination C:** Trips to and from South Bank Road.
- **Origin / Destination D:** Trips to and from the A174 Parkway.

A summary of the vehicle trip generation of the site is set out in Table 12, overleaf.

⁶ South Tees Development Corporation, South Industrial Zone, Transport Assessment (Issue), Arup, 2020.

Table 12: Proposed Development Vehicle Trip Generation

Time Period		Vehicle Trips (Units: Vehicles)											
		A: Dockside Road			B: A66			C: South Bank Road			D: A174 Parkway		
		Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot	Arr	Dep	Tot
Weekday AM Peak Period	07:30-08:30	247	110	357	227	82	309	94	21	115	80	9	89
	08:30-09:30	217	123	340	200	92	292	83	24	107	70	9	79
Weekday Inter Peak Period	12:00-13:00	132	237	369	122	178	300	51	46	97	43	20	63
	13:00-14:00	200	229	429	184	172	356	76	45	121	64	20	84
Weekday PM Peak Period	16:00-17:00	90	115	205	72	276	348	33	81	114	25	46	71
	17:00-18:00	68	137	205	55	329	384	25	97	122	19	54	73

Table 12 shows that, when fully built out and occupied, the proposed development is expected to distribute the following total two-way vehicle trips to and from the Middlesbrough local authority area:

- 1,688 two-way vehicle trips between 07:30 and 09:30 hours.
- 1,819 two-way vehicle trips between 12:00 and 14:00 hours.
- 1,522 two-way vehicle trips between 16:00 and 18:00 hours.

4.3 Vehicle Trip Distribution and Traffic Assignment

In line with the methodology adopted for committed development sites (see section 2.3.4), the vehicle trip distribution of the site has been estimated using the NOMIS “WF01BEW - Location of Usual Residence and Place of Work (OA) Level” dataset. In this way, development-generated trips are distributed accordingly to the OAs/WZs within the model or to external zones. As such, the destination of travel to work for people who work in the E00061064 OA has been considered, as this represents the area in which the site is located.

The number of trips to each OA / local authority district has been expressed as a percentage of the total and then assigned to the corresponding zones in the Aimsun model to give vehicle trip distribution to and from the site. The resulting vehicle trip distribution of the site is summarised at Appendix B.

4.4 Traffic Demand Matrices

Traffic demand matrices have been developed for each do something future assessment year scenario to include the predicted vehicle trip generation of the site. Traffic demand

matrices for the proposed development have been input into Aimsun as a new vehicle type so that detailed statistics can be extracted for development-generated traffic only, if required.

It is noted that first occupancy of the development will be in 2023, with the site fully occupied by 2028. As such, the occupancy rate provided by Arup for the purpose of this assessment is as follows:

- **2020 Future Assessment Year Scenario:** not assessed.
- **2025 Future Assessment Year Scenario:** 40% of the site will be occupied / built out.
- **2030 Future Assessment Year Scenario:** 100% of the site will be occupied built out.

5 Aimsun Modelling Screening Assessment Results

5.1 Introduction

This section presents an initial model screening assessment in order to understand the impact of the proposed development on the fully modelled area.

5.2 Model Screening Assessment

In order to understand the impact of the proposed development on the fully modelled area, an initial screening exercise has been undertaken using the macroscopic model results. To do this, a macro function component has been used to calculate the ratio of volume to capacity (V/C) for each turning movement in the model for each future assessment year scenario. Effectively, the V/C of a particular turn is calculated as the demand (volume of vehicles) divided by the given capacity of that turn. The capacity of the turn is calculated on the basis of its geometry and link capacity. For the purpose of this assessment, it is considered that:

- Turns that have a V/C of greater than 100% are considered to be operating over absolute capacity.
- Turns that have a V/C between 90% and 100% are considered to be operating over practical capacity but below absolute capacity.
- Turns that have a V/C between 80% and 90% are considered to operating below, but close to, practical capacity.
- Turns that have a V/C of less than 80% are considered to be operating within practical capacity.

For the screening assessment, the “do minimum” V/C for all turns included in the macroscopic model area has been compared against the V/C for all turns in the “do something” future assessment year scenarios. As such, this comparison identifies areas of the model where the proposed development is forecast to give rise to potential junction capacity issues and where more detailed junction capacity assessment is potentially required. Moreover, this initial screening assessment helps to identify areas of the model that should be analysed in more detail using the microsimulation subnetworks.

5.3 Screening Assessment Criteria

For the purpose of this modelling exercise, an assessment of a particular turn is required when both of the criteria set out below is achieved:

- The V/C is above 80% (i.e. below, but close to practical capacity).
- The impact of the proposed development on the V/C is greater than five percentage points.

For example, if the V/C of a particular turn is 65% in the do minimum scenario and 75% in the do something scenario, an assessment would not be required as the turn is still expected to operate within practical capacity, even though the increase is greater than five percentage points. However, if the V/C of the turn increases to 95% in the do something scenario, an assessment would be required as the V/C of the turn is expected to operate above 80% and the increase, relative to the do minimum scenario, is greater than 5%.

5.4 Screening Assessment Results

Full results of the screening exercise are provided at Appendix C and a summary of the junctions identified for assessment are set out in Table 13, overleaf.

Table 13: Summary of Screening Assessment Results

Junction Name	Model Assessment
Riverside Park Road / Ironmasters Way	SN1
Newport Interchange	SN1
Hartington Interchange	SN1
Metz Bridge Road / A178 North Road	SN1
Newport Road / Marsh Street	SN1
Lower Feversham Street / Cleveland Street	SN1
West Terrace / Cromwell Street	SN1
A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield	SN2
A171 Cargo Fleet Lane / A1085 Longlands Road	SN2
A171 Cargo Fleet Lane / Cranmore Road	SN2
A171 Cargo Fleet Lane / Minor Access Road	SN2
A66 / A171 Cargo Fleet Lane Throughabout	SN2
A171 Cargo Fleet Lane / College Road	SN2
A171 Cargo Fleet Lane / South Bank Road	SN2
B1380 Ladgate Lane / Ormesby Road	SN4
Ormesby Road / A1085 Longlands Road / Kings Road	SN4
A1032 Acklam Road / Croft Avenue / Green Lane	MACRO
Mandale Road / A1032 Acklam Road	MACRO
A66 Tees Flyover / A19 (Northbound) Merge	MACRO
Mandale Road / A1032 Acklam Road	MACRO
A1032 Acklam Road / Heywood Street / Ayresome Green Lane / Ayresome Street	MACRO
A1032 Acklam Road / Lodore Grove	MACRO
A1043 Nunthorpe Bypass /Unnamed Minor Access Road	MACRO
Dixons Bank / Gunnergate Lane / Gypsy Lane	MACRO
B1380 Ladgate Lane / Alan Peacock Way	MACRO
Mandale Interchange	MACRO
A174 Parkway	MACRO
Mandale Road / Levick Crescent	MACRO
B1380 Ladgate Lane / A1032 Acklam Road / Low Lane	MACRO

Junction Name	Model Assessment
Low Lane / Stainton Way	MACRO
B1365 / Viewley Hill Avenue / Newham Way	MACRO
A172 Marton Road / A172 Stokesley Road / B1380 Ladgate Lane	MACRO
A172 Stokesley Road / A174 Parkway	MACRO
A172 Dixons Bank / Stainton Way	MACRO
A172 Dixons Bank / Guisborough Road	MACRO
A172 Ormesby Bank / Middlesbrough Road / A1043 Nunthorpe Bypass / Guisborough Road	MACRO
A172 Ormesby Bank / A174 Off-Slip / Church Lane	MACRO
Stainton Way / Dalby Way	MACRO
Stainton Way / The King's Academy	MACRO
Park Vale Road / Clairville Road / Park Road North	MACRO
A172 Marton Road / James Cook University Hospital (Southern Access)	MACRO
A172 Stokesley Road / Hemlington Grange Way	MACRO

Based on the above analysis, detailed junction capacity assessments have been undertaken using a combination of macroscopic and microscopic modelling results and these are set out at section 6.5 and section 6.5. In addition to this, the screening assessment has identified that detailed microsimulation modelling is required in the following subnetworks:

- **Subnetwork 1 (Middlesbrough Central):** a model covering the central area of Middlesbrough bounded by the River Tees to the north and Borough Road and Newport Road to the south. The A66 runs through the model area from the Newport Interchange in the west to the A66 / Borough Road junction in the east.
- **Subnetwork 2 (A171 Cargo Fleet Lane Corridor):** a model covering the A171 Cargo Fleet Lane corridor from the A66 Cargo Fleet Lane roundabout in the north to A171 Cargo Fleet Lane / B1380 High Street / Sunnyfield roundabout in the south.
- **Subnetwork 4 (Ormesby Road Corridor):** a model covering the Ormesby Road corridor in central Middlesbrough. The model extends from A1085 Longlands Road in the north to B1380 Ladgate Lane in the south.

6 Aimsun Modelling Results

6.1 Introduction

The following section presents and discusses the results of the Aimsun Modelling.

6.2 Network Wide Model Statistics

Network statistics provide a strategic overview of the performance of the whole network. These statistics have been extracted for the whole modelled network to understand the wider network impacts across each of the modelled scenarios. In all cases, the results presented are an average of ten model runs (known as replications) for each scenario.

- **Total travel time per vehicle (unit: s):** mean time it takes for vehicles to travel through the network in the modelled time period. This includes the total travel time in virtual queues.
- **Delay time (unit: s/km):** mean delay incurred by vehicles travelling through the network in the modelled time period and is calculated as the difference between actual travel time and free flow travel.
- **Speed (unit: km/h):** mean speed of vehicles in the network.
- **Stop time (unit: s/km):** mean amount of time that vehicles are stationary.
- **Density (unit: veh/km):** the mean number of vehicles per km of road space and is an indicator of queuing and congestion.
- **Mean Queue (unit: veh):** the mean number of vehicles in queuing in the model, averaged over the modelled period.
- **Flow (unit: veh/h):** mean number of vehicles that pass through the network in the modelled time period.
- **Vehicles Out (unit: veh):** number of vehicles that have left the network during the simulation period.
- **Vehicles In (unit: veh):** number of vehicles inside the network when the simulation period finishes.
- **Vehicles Waiting to Enter (unit: Veh):** number of vehicles that are waiting to enter the network.

6.2.1 Subnetwork 1: Middlesbrough Central

The results of Subnetwork 1 are summarised in Table 14 to Table 16, below and overleaf. Detailed network statistics are provided at Appendix D1.

Table 14: Subnetwork 1 Network Statistics Summary – AM Peak Period (07:30 – 09:30)

Statistic	AM Peak Period (07:30 - 09:30)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	100.6	107.1	109.1	112.9	119.3
Delay	sec/km	42.2	48.3	50.3	54.0	60.6
Density	veh/km	5.8	6.3	6.5	6.9	7.4
Mean Queue	veh	213.9	250.0	267.7	295.6	352.0
Speed	km/h	46.0	44.5	44.2	43.2	42.4
Stop Time	sec/km	32.7	38.3	40.2	43.5	49.6
Flow	veh/h	15,923.1	17,164.6	17,354.9	17,956.4	18,307.8
Vehicles Out	veh	31,846.1	34,329.2	34,709.7	35,912.7	36,615.6
Vehicles In	veh	812.4	893.9	903.2	961.6	1,027.6
Vehicles Waiting to Enter	veh	7.7	16.0	35.2	46.1	79.1

Table 15: Subnetwork 1 Network Statistics Summary – Inter Peak Period (12:00 – 14:00)

Statistic	Inter Peak Period (12:00 - 14:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	113.2	124.5	127.4	128.9	138.8
Delay	sec/km	53.4	64.6	67.5	69.1	79.4
Density	veh/km	4.8	5.7	5.9	6.1	7.1
Mean Queue	veh	199.6	261.0	277.9	289.3	384.3
Speed	km/h	44.1	42.3	42.1	42.1	41.0
Stop Time	sec/km	44.0	54.3	57.2	58.7	68.6
Flow	veh/h	13,894.7	15,265.7	15,422.8	16,037.8	16,497.3
Vehicles Out	veh	27,789.3	30,531.4	30,845.5	32,075.5	32,994.5
Vehicles In	veh	769.4	918.9	974.5	980.9	1,275.7
Vehicles Waiting to Enter	veh	9.1	40.3	76.4	63.0	92.9

Table 16: Subnetwork 1 Network Statistics Summary – PM Peak Period (16:00 – 18:00)

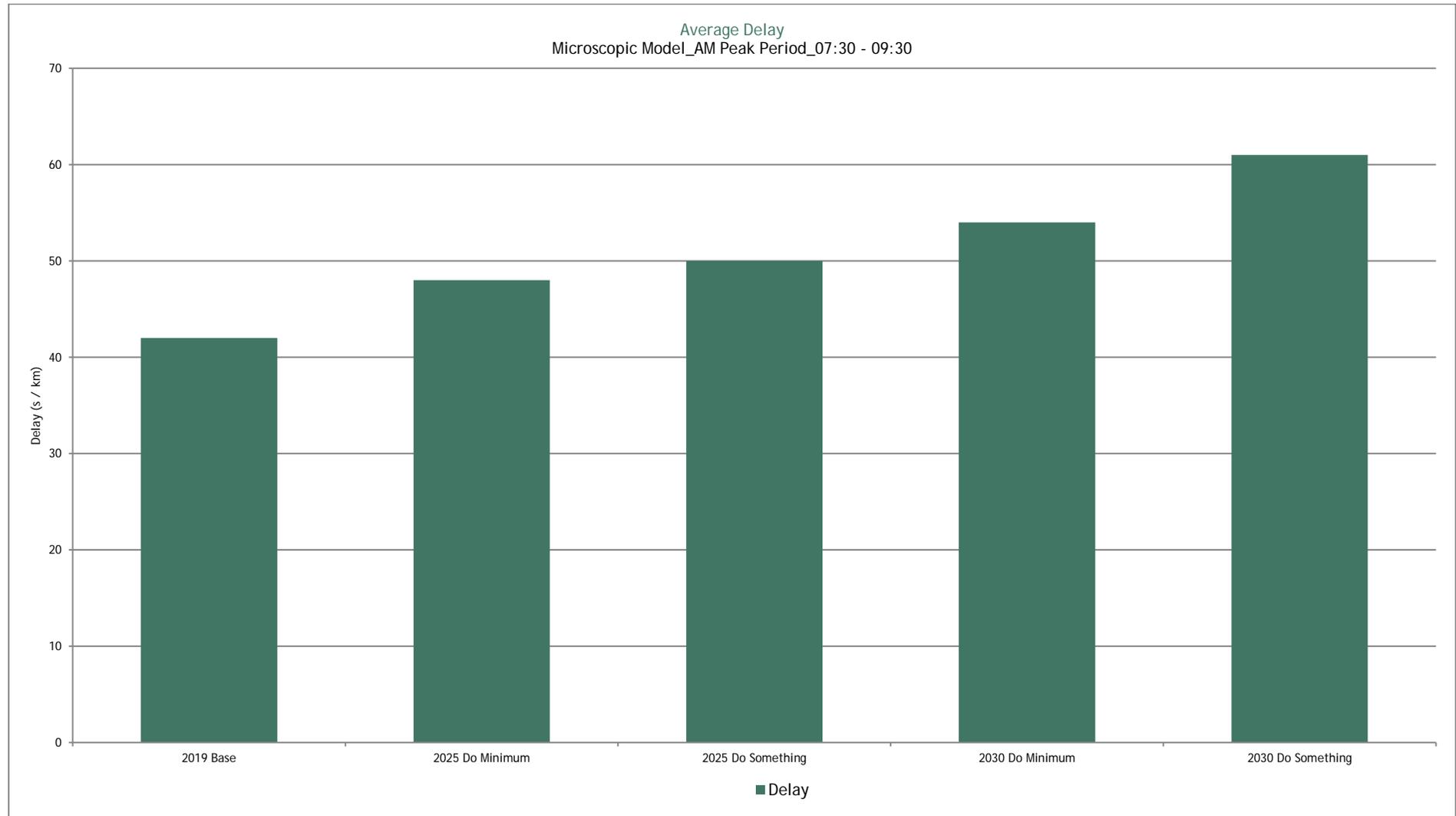
Statistic	PM Peak Period (16:00 - 18:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	115.6	128.8	130.6	129.8	139.5
Delay	sec/km	56.4	69.5	71.3	70.6	80.5
Density	veh/km	7.0	8.5	8.9	9.1	10.3
Mean Queue	veh	283.4	413.3	445.7	456.3	559.7
Speed	km/h	43.5	39.1	38.4	39.8	37.3
Stop Time	sec/km	45.4	55.9	57.0	58.1	65.0
Flow	veh/h	18,536.1	20,026.7	20,074.1	20,864.5	21,367.9
Vehicles Out	veh	37,072.1	40,053.4	40,148.2	41,729.0	42,735.7
Vehicles In	veh	871.7	1,111.6	1,252.6	1,194.7	1,485.7
Vehicles Waiting to Enter	veh	11.3	94.1	61.9	122.0	185.1

In order to better understand the network statistics presented in Table 14 to Table 16, and the detailed statistics presented at Appendix D1, some of these have been presented as graphs, as set out below:

- Delay (unit: sec / km):** Graph 1 to Graph 3 present the average delay incurred by vehicles travelling through the network in the modelled time period and is calculated as the difference between actual travel time and free flow travel. These graphs provide an overview of model performance and can be used as a general indicator of network conditions.
- Network Throughput (unit: veh):** Graph 4 to Graph 6 present stacked bar charts showing vehicles that have passed through the model, the vehicles inside the model, and vehicles waiting to enter the model. These give an overview of the state of the network at the end of the simulation period. The sum of these statistics is equal to the overall demand, with the number of vehicles inside the network and waiting to enter the network giving an indication of whether the network is operating within capacity.

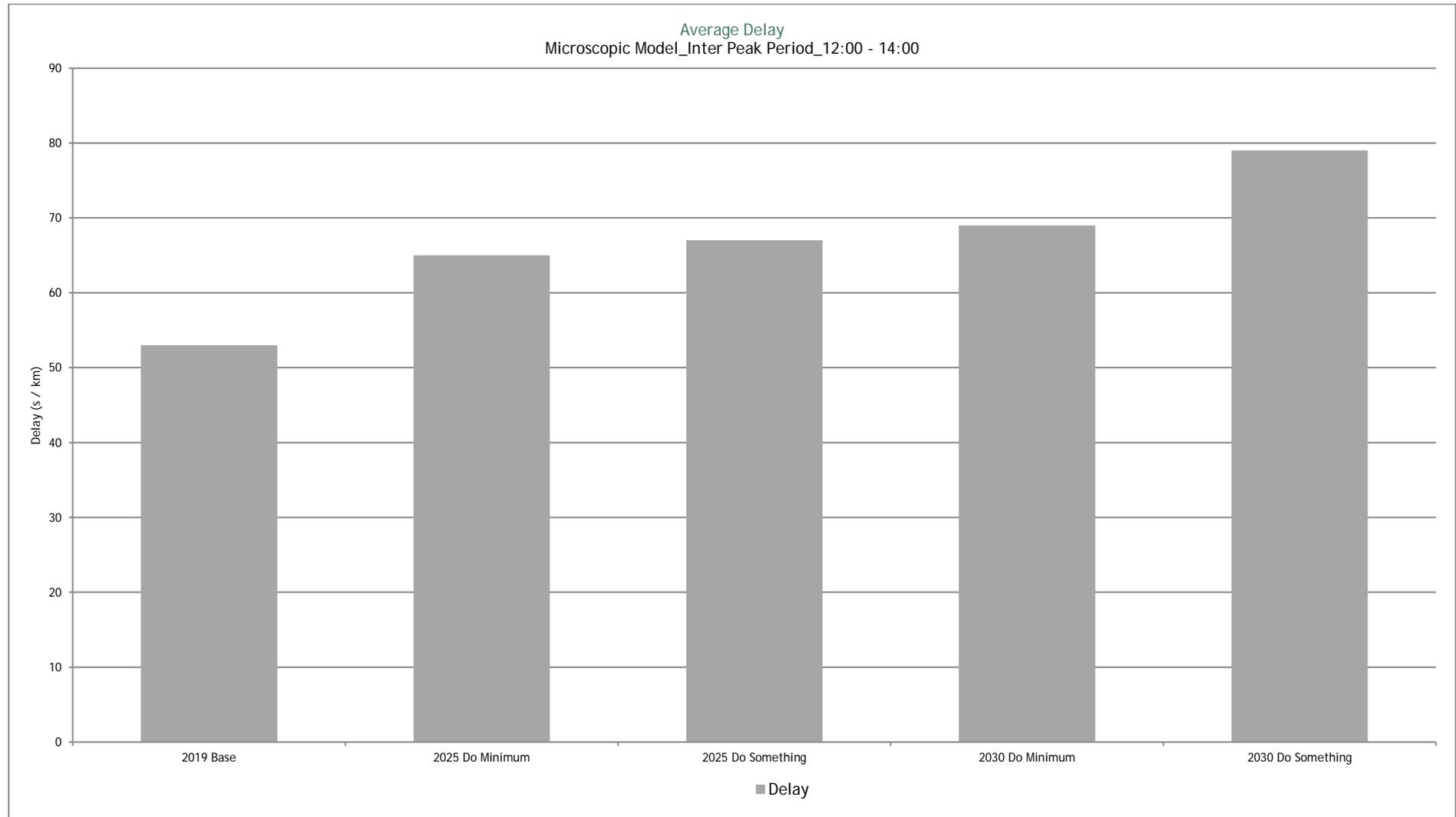


Graph 1: Subnetwork 1 Average Delay – AM Peak Period (07:30 – 09:30)



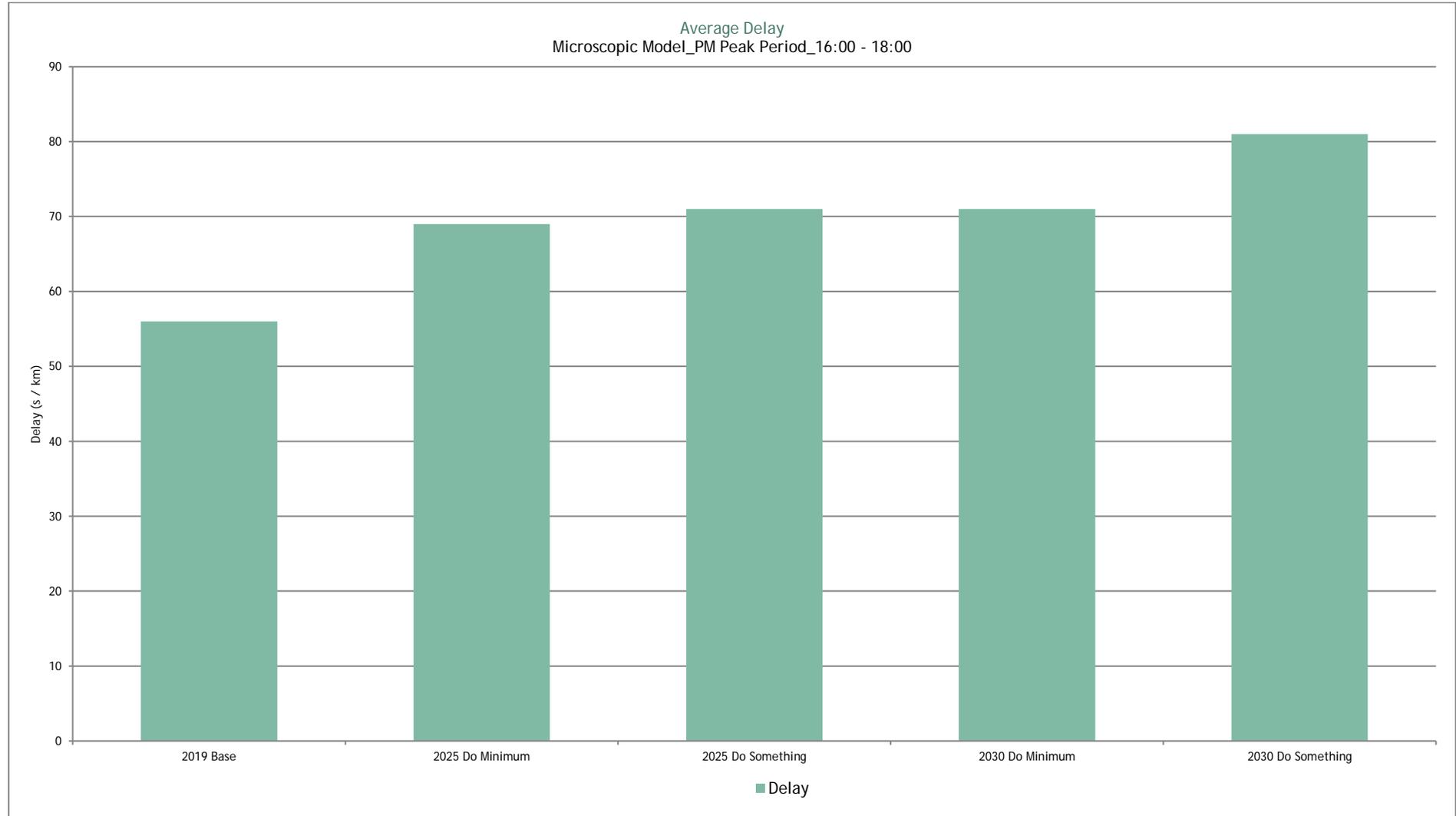


Graph 2: Subnetwork 1 Average Delay – Inter Peak Period (12:00 – 14:00)



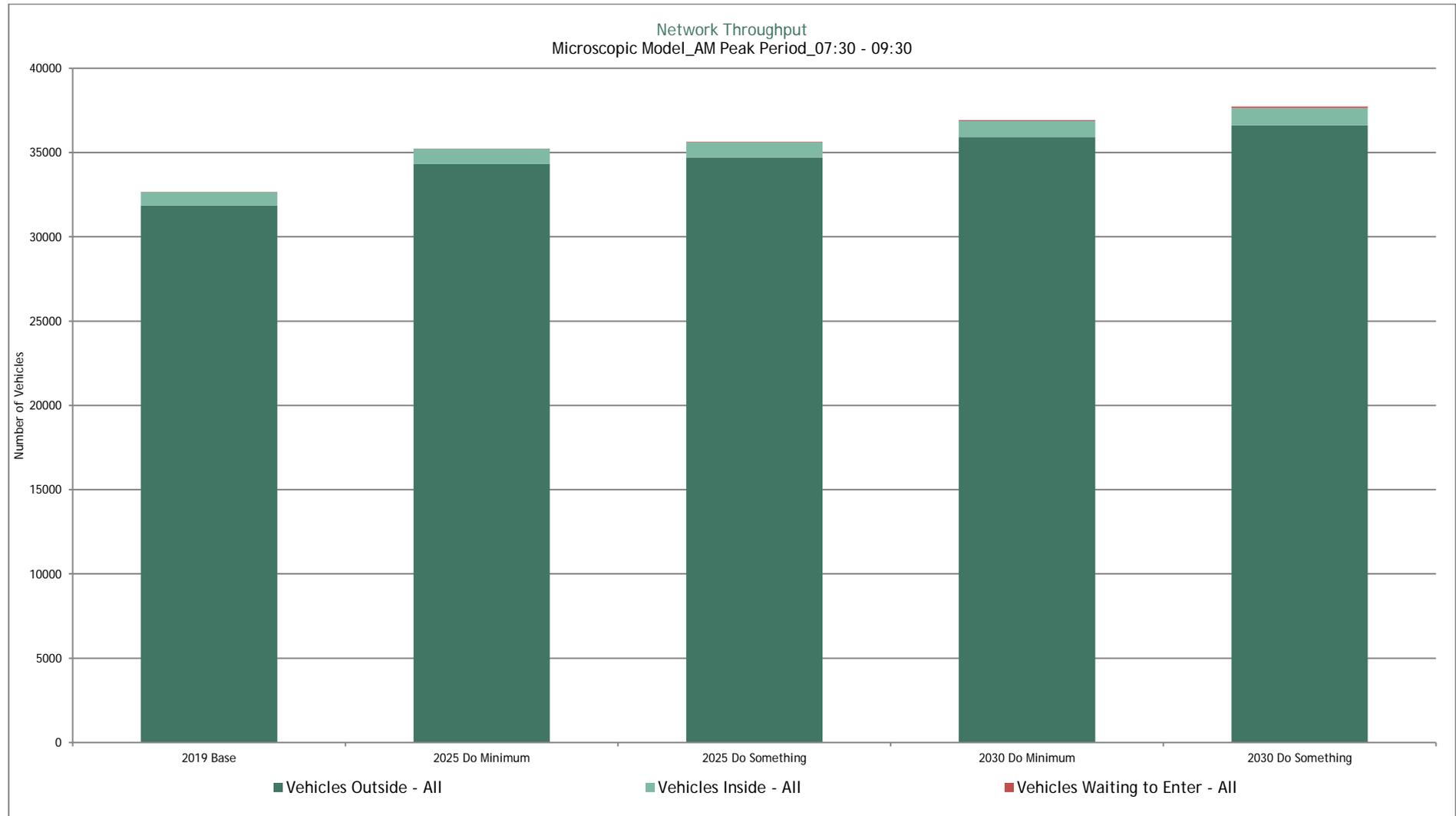


Graph 3: Subnetwork 1 Average Delay– PM Peak Period (16:00 – 18:00)



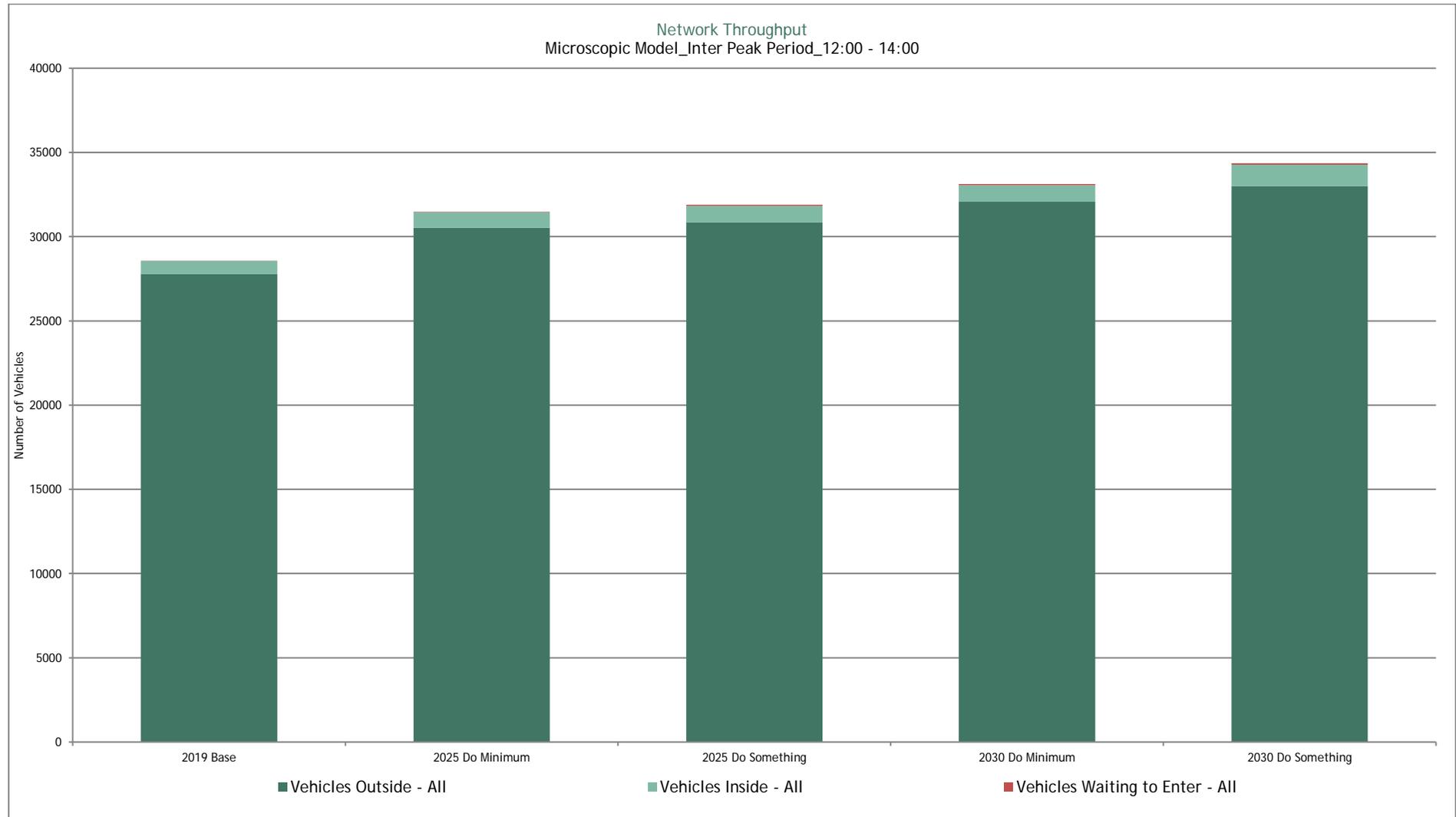


Graph 4: Subnetwork 1 Network Throughput – AM Peak Period (07:30 – 09:30)



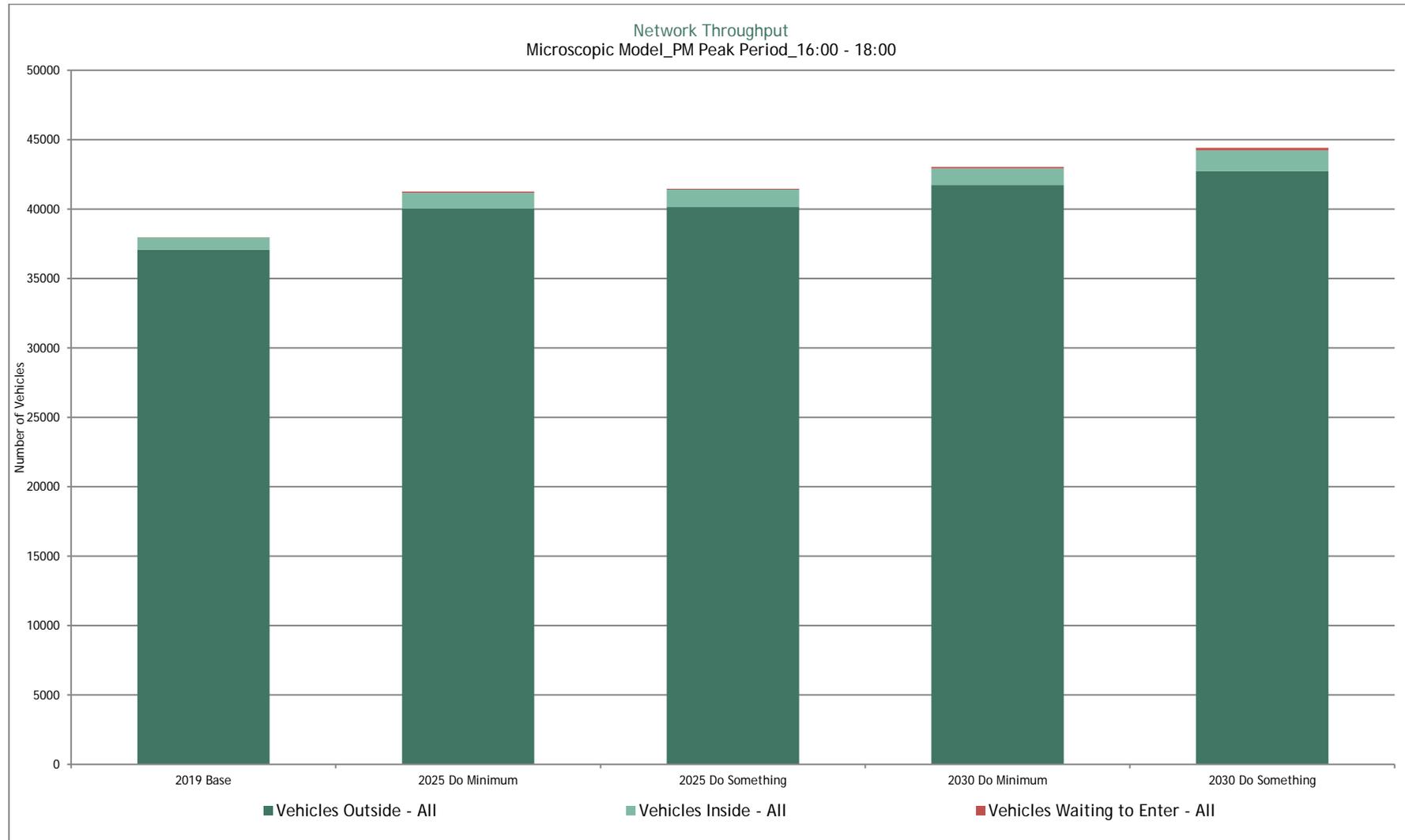


Graph 5: Subnetwork 1 Network Throughput – Inter Peak Period (12:00 – 14:00)





Graph 6: Subnetwork 1 Network Throughput – PM Peak Period (16:00 – 18:00)



6.2.2 Analysis

In 2025, Graph 1 to Graph 3 show that the proposed development is forecast to give rise to reasonably small increases in overall network delay compared to the corresponding do minimum scenario. For example, in 2025, the proposed development is predicted to give rise to an increase in overall network delay of no more than 2.9s per km. Whilst the impact is forecast to be greater by 2030, the results show that this increase is not expected to be greater than 10.3s per km across all future assessment year scenarios.

Consistent with the results set out above, Graph 4 to Graph 6 demonstrate that the proposed development is unlikely to give rise to a significant impact on overall network throughput in 2025. That is, the results show that only small changes in the number of vehicles either queuing within the modelled network or waiting to enter the modelled network at the end of the simulation period is predicted to occur. However, in the 2030 future assessment year scenario (particularly the PM peak period), the results show that more significant impacts to overall throughput could occur. This is shown by a more noticeable increase in the number of vehicles either queuing within the modelled network or waiting to enter the modelled network at the end of the simulation period.

In summary, the results show that in 2025, the decrease in overall network capacity relative to the do minimum scenario is not considered to be significant and, as a result, the proposed development is unlikely to give rise to any significant capacity issues across the microsimulation area. In 2030 however, more significant impacts could potentially occur.

6.2.3 Subnetwork 2: A171 Cargo Fleet Lane Corridor

Network wide modelling results are summarised in Table 17 to Table 19, overleaf. Detailed network statistics are provided at Appendix D2.

Table 17: Subnetwork 2 Network Statistics Summary – AM Peak Period (07:30 – 09:30)

Statistic	AM Peak Period (07:30 - 09:30)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	113.1	149.7	157.2	160.0	240.4
Delay	sec/km	53.4	89.6	97.2	100.0	181.1
Density	veh/km	8.9	11.6	12.5	12.7	23.1
Mean Queue	veh	106.6	190.2	213.1	218.0	538.2
Speed	km/h	41.0	34.9	33.8	33.4	29.2
Stop Time	sec/km	42.0	75.3	82.3	84.9	162.8
Flow	veh/h	9,512.7	9,893.6	9,975.8	10,193.0	9,859.6
Vehicles Out	veh	19,025.4	19,787.1	19,951.6	20,386.0	19,719.2
Vehicles In	veh	300.5	417.9	461.7	449.4	1,141.2
Vehicles Waiting to Enter	veh	0.0	988.2	1,143.9	1,339.5	2,434.4

Table 18: Subnetwork 2 Network Statistics Summary – Inter Peak Period (12:00 – 14:00)

Statistic	Inter Peak Period (12:00 - 14:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	96.3	128.8	151.9	137.9	266.4
Delay	sec/km	35.8	67.5	90.5	76.7	205.4
Density	veh/km	6.9	9.5	11.8	10.7	24.4
Mean Queue	veh	61.5	132.1	212.6	164.1	609.7
Speed	km/h	43.1	37.1	34.4	36.0	26.3
Stop Time	sec/km	26.4	54.4	75.7	62.9	185.9
Flow	veh/h	8,661.1	9,443.5	9,519.2	9,733.3	9,395.2
Vehicles Out	veh	17,322.1	18,886.9	19,038.4	19,466.5	18,790.4
Vehicles In	veh	258.8	441.0	554.5	513.0	1,455.7
Vehicles Waiting to Enter	veh	0.0	2.2	273.9	17.8	1,323.8

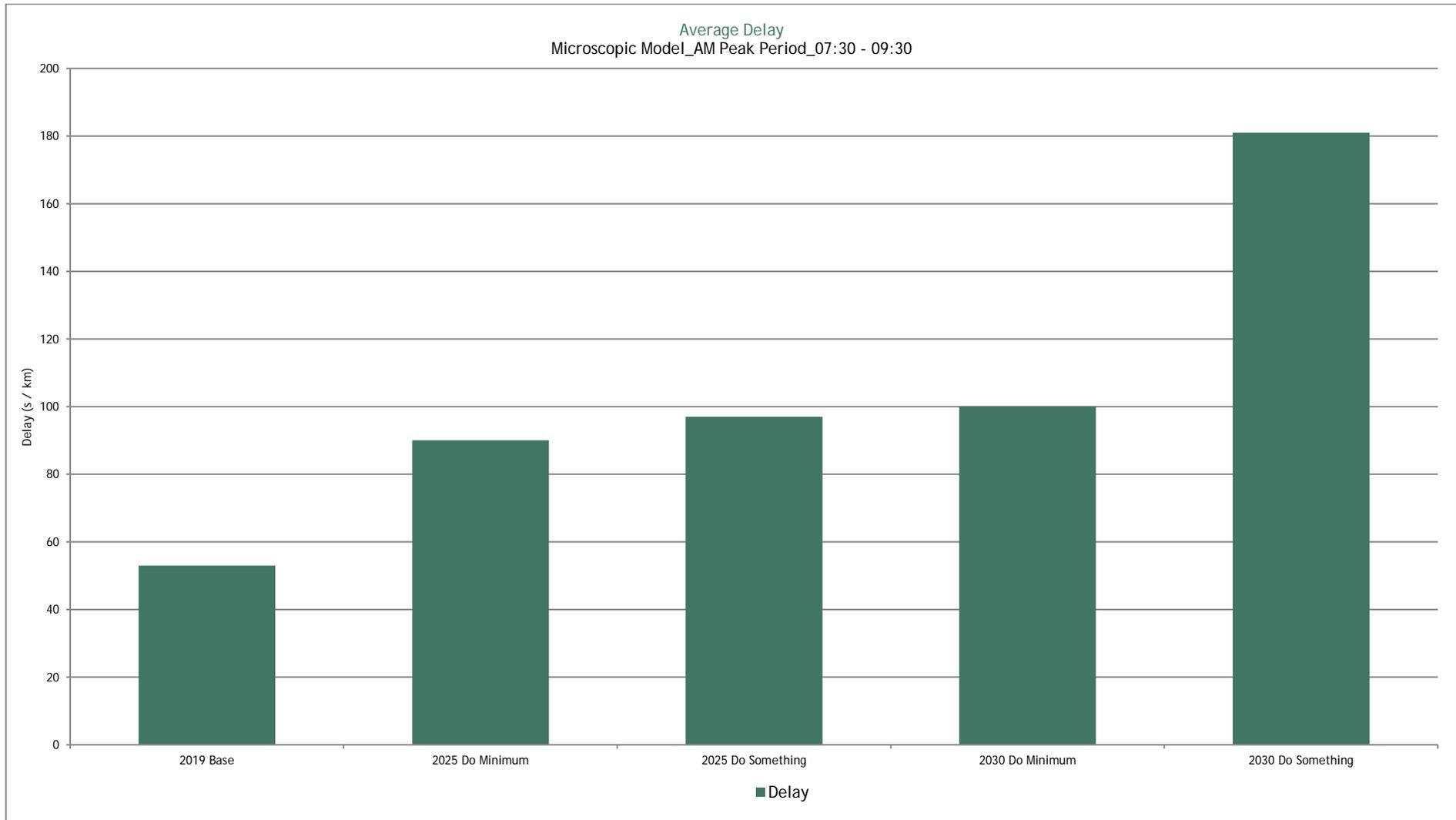
Table 19: Subnetwork 2 Network Statistics Summary – PM Peak Period (16:00 – 18:00)

Statistic	PM Peak Period (16:00 - 18:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	120.0	205.0	261.1	242.3	353.1
Delay	sec/km	60.6	144.8	200.3	182.2	292.1
Density	veh/km	10.5	19.0	24.9	23.9	36.8
Mean Queue	veh	137.9	407.0	618.0	559.6	1,015.9
Speed	km/h	40.5	28.0	23.2	23.4	17.9
Stop Time	sec/km	49.2	124.6	178.8	158.5	264.8
Flow	veh/h	10,690.3	11,015.1	10,600.2	11,342.7	10,363.1
Vehicles Out	veh	21,380.5	22,030.2	21,200.3	22,685.3	20,726.2
Vehicles In	veh	310.7	803.8	1,082.9	1,212.0	2,039.5
Vehicles Waiting to Enter	veh	16.4	558.2	1,817.6	578.9	3,236.1

Consistent with the above, Graph 7 to Graph 12, overleaf, present some of the statistics set out in Table 17 to Table 19, and the detailed statistics presented at Appendix D2.

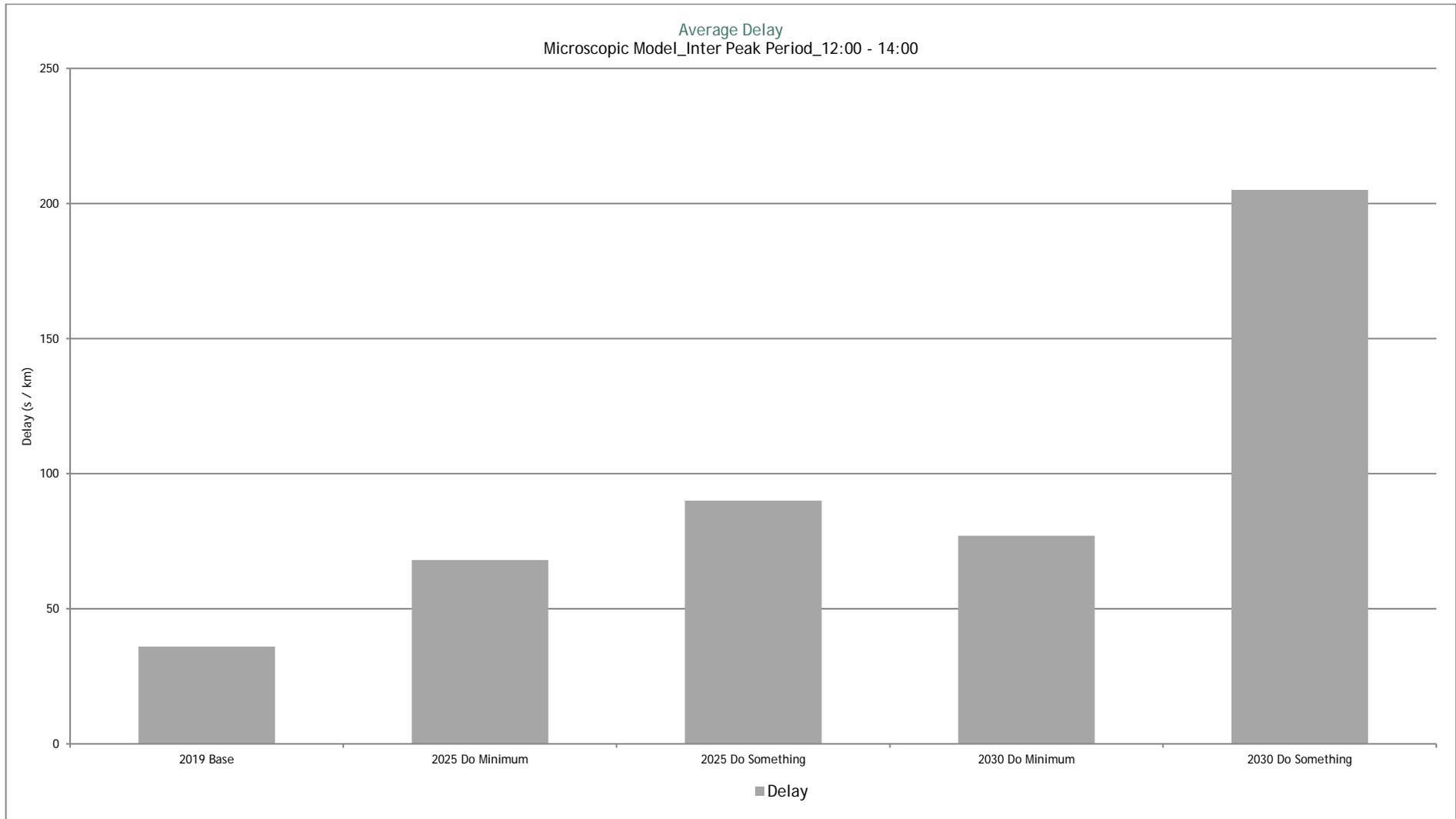


Graph 7: Subnetwork 2 Average Delay – AM Peak Period (07:30 – 09:30)



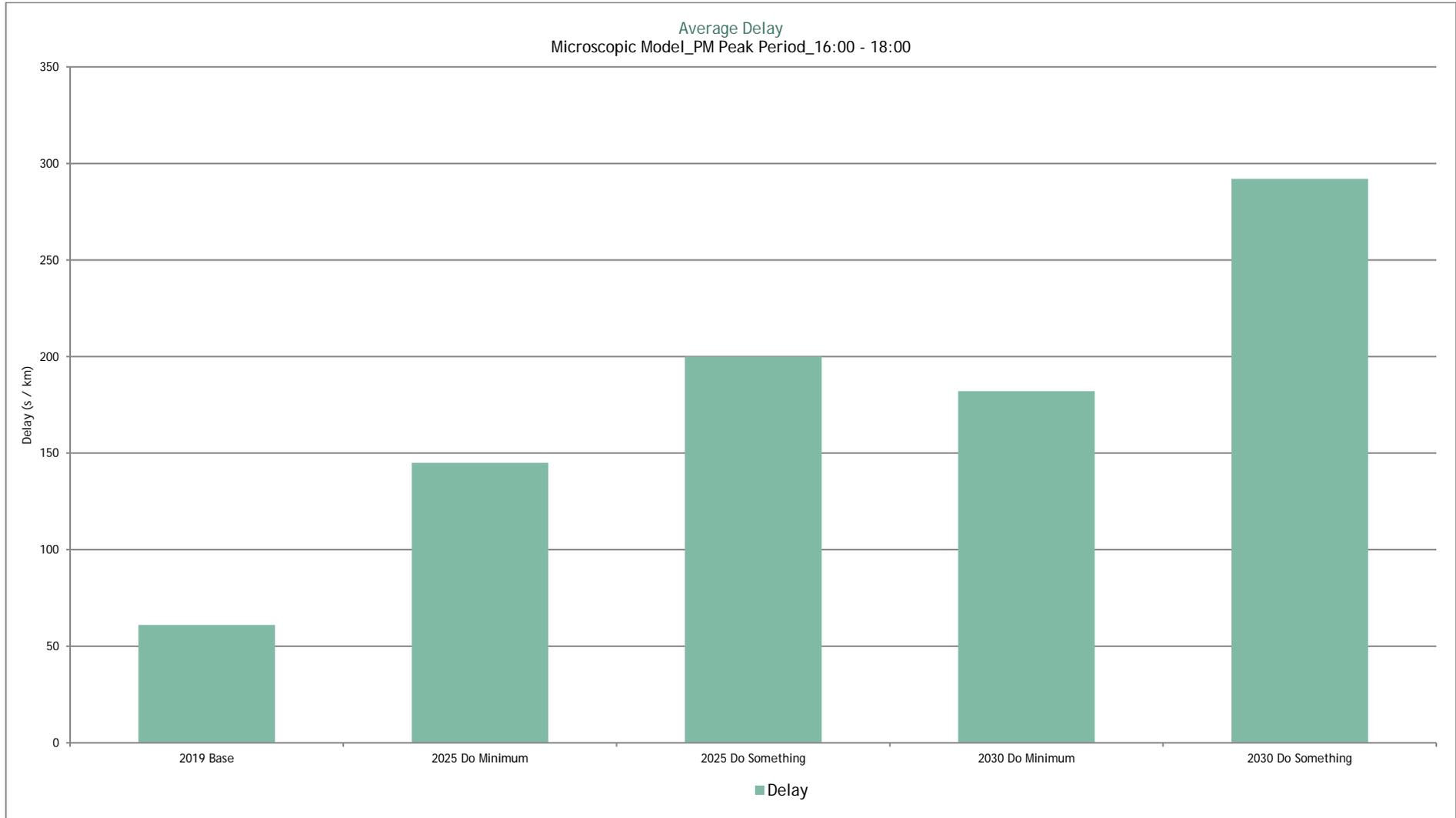


Graph 8: Subnetwork 2 Average Delay – Inter Peak Period (12:00 – 14:00)



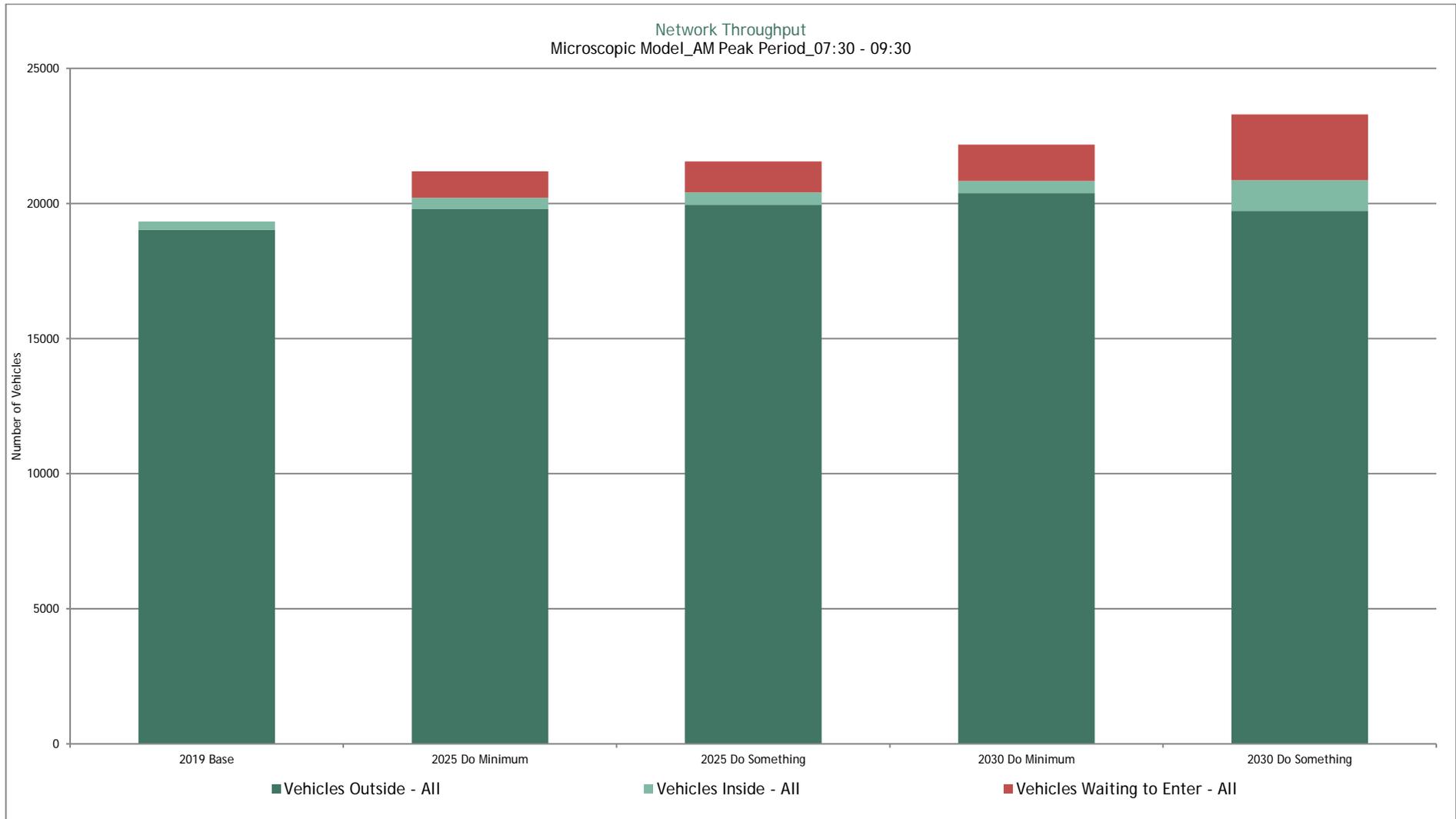


Graph 9: Subnetwork 2 Average Delay– PM Peak Period (16:00 – 18:00)



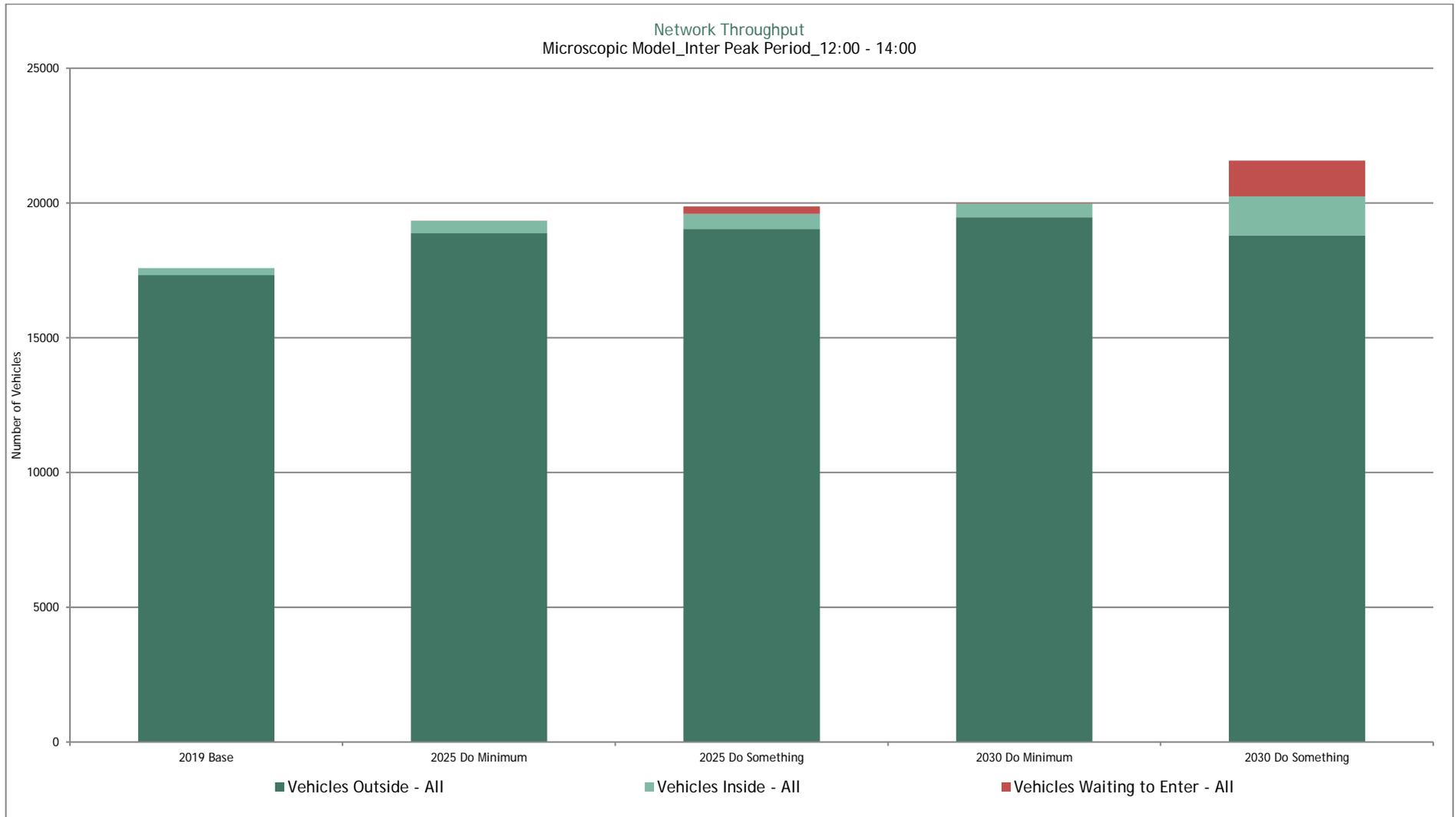


Graph 10: Subnetwork 2 Network Throughput – AM Peak Period (07:30 – 09:30)



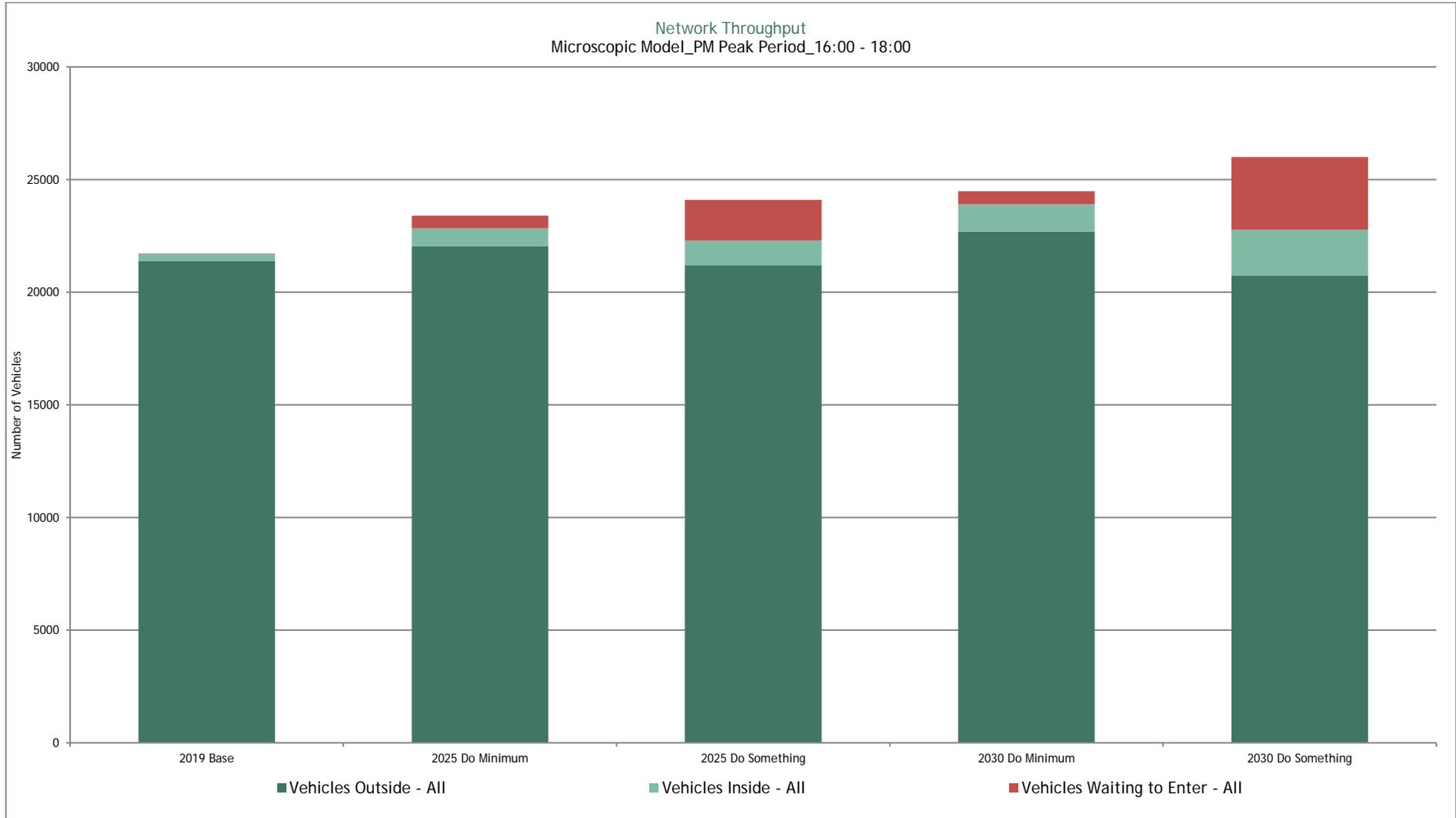


Graph 11: Subnetwork 2 Network Throughput – Inter Peak Period (12:00 – 14:00)





Graph 12: Subnetwork 2 Network Throughput – PM Peak Period (16:00 – 18:00)



6.2.4 Analysis

In 2025, Graph 1 to Graph 3 show that the impact of the proposed development varies across each future assessment year scenario. In the AM (07:30 - 09:30) and inter (12:00 - 14:00) peak periods, the proposed development is predicted to give rise to an increase in overall network delay of no more than 22.9s per km. However, in the PM peak period (16:00 - 18:00), an increase in delay of 55.5s per km is reported. In 2030, the impact of the development is more recognisable across all future assessment year scenarios. That is, an increase in overall network delay of up to 128.7s per km is predicted to occur.

Consistent with the results set out above, Graph 4 to Graph 6 demonstrate that, in 2025, the proposed development is predicted to give rise to an impact on overall network throughput. Across all future assessment year scenarios, the results show that the proposed development is predicted to give rise to an increase in the number of vehicles either queueing within the modelled network or waiting to enter the network at the end of the simulation period. In 2030, the impacts of the proposed development are exacerbated as a result of an increase in development-generated traffic on the network. As a result, more significant increases in the number of vehicles queueing inside the network or waiting to enter the network are predicted to occur. This suggests that development-generated traffic would simply add to and exacerbate existing congestion and queueing on the network.

In summary, the results show that the overall capacity of the network is forecast to be significantly affected with the development in place compared to the corresponding do minimum scenario.

6.2.5 Subnetwork 4: Ormesby Road Corridor

Network wide modelling results are summarised in Table 20 to Table 22, overleaf. Detailed network statistics are provided at Appendix D3.

Table 20: Subnetwork 4 Network Statistics Summary – AM Peak Period (07:30 – 09:30)

Statistic	AM Peak Period (07:30 - 09:30)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	122.4	132.4	138.4	159.4	162.8
Delay	sec/km	57.1	66.4	72.4	93.5	96.8
Density	veh/km	8.6	10.5	11.1	13.5	14.1
Mean Queue	veh	75.5	107.2	124.0	182.1	195.6
Speed	km/h	37.7	35.9	35.2	33.8	33.3
Stop Time	sec/km	45.1	53.8	59.5	79.6	82.7
Flow	veh/h	7,016.7	7,798.7	7,805.2	8,003.2	8,090.6
Vehicles Out	veh	14,033.4	15,597.3	15,610.4	16,006.4	16,181.2
Vehicles In	veh	219.6	294.4	317.1	439.1	471.1
Vehicles Waiting to Enter	veh	0.0	25.6	23.9	88.8	117.8

Table 21: Subnetwork 4 Network Statistics Summary – Inter Peak Period (12:00 – 14:00)

Statistic	Inter Peak Period (12:00 - 14:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	142.7	150.6	156.7	173.4	179.4
Delay	sec/km	76.4	83.8	90.1	106.8	112.9
Density	veh/km	7.9	8.7	9.0	11.0	11.6
Mean Queue	veh	65.1	77.9	81.7	125.3	137.2
Speed	km/h	37.2	36.0	36.0	33.6	33.3
Stop Time	sec/km	64.1	71.1	77.3	92.8	98.8
Flow	veh/h	6,835.1	7,058.1	7,102.3	7,418.8	7,529.2
Vehicles Out	veh	13,670.2	14,116.2	14,204.6	14,837.5	15,058.4
Vehicles In	veh	230.7	249.3	280.4	328.5	373.4
Vehicles Waiting to Enter	veh	15.7	10.3	44.5	44.9	189.8

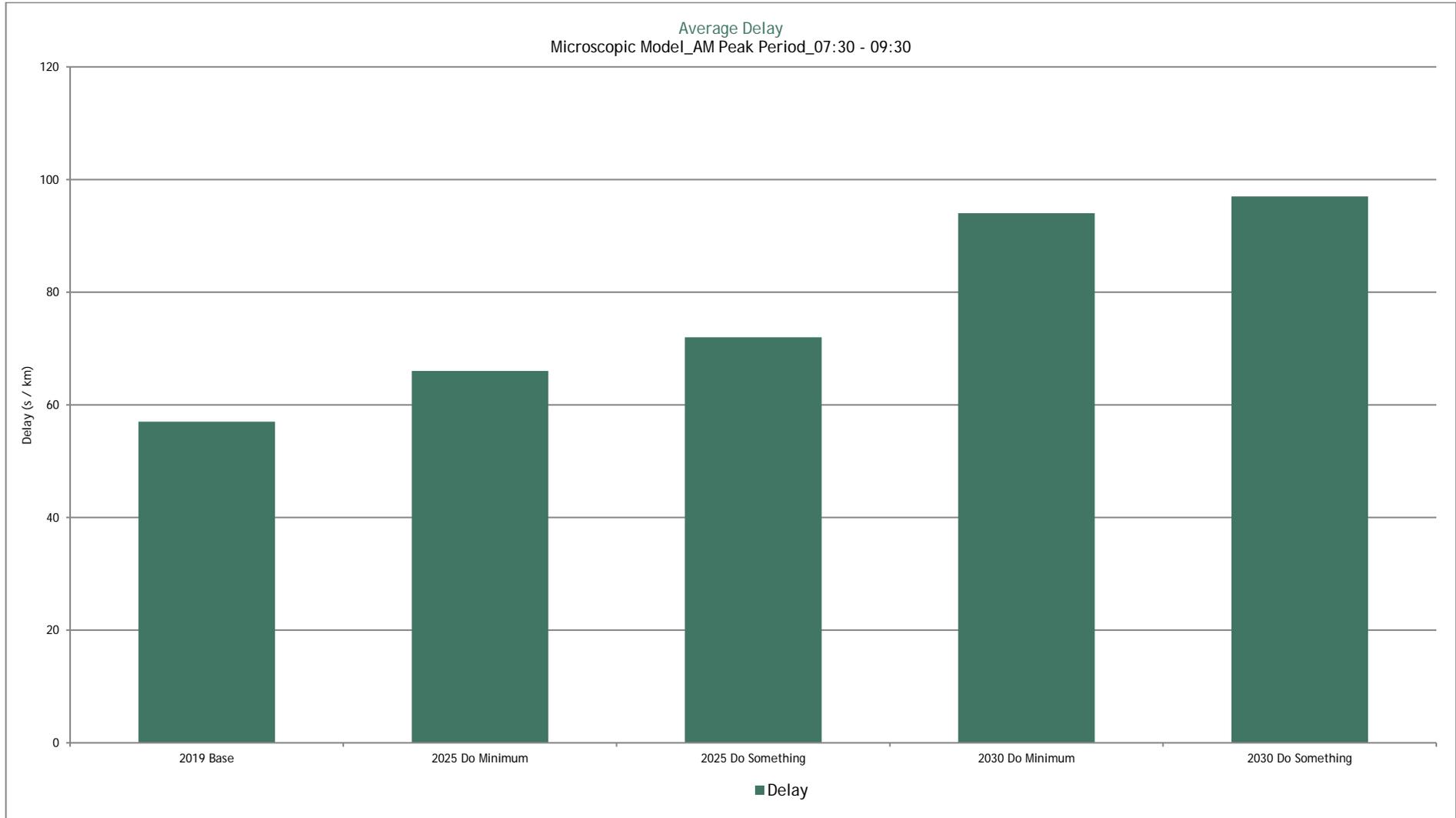
Table 22: Subnetwork 4 Network Statistics Summary – PM Peak Period (16:00 – 18:00)

Statistic	PM Peak Period (16:00 - 18:00)					
	Units	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Total Travel Time	sec/km	165.9	176.6	178.8	198.2	197.2
Delay	sec/km	99.7	109.9	112.1	131.5	130.5
Density	veh/km	10.8	15.5	15.9	19.5	18.3
Mean Queue	veh	123.6	231.3	241.4	322.6	304.1
Speed	km/h	34.9	30.7	30.4	29.2	28.7
Stop Time	sec/km	86.1	94.5	96.6	115.2	114.0
Flow	veh/h	7,809.8	8,060.8	8,098.9	7,943.2	8,234.5
Vehicles Out	veh	15,619.5	16,121.5	16,197.7	15,886.3	16,469.0
Vehicles In	veh	304.2	478.5	489.2	747.2	648.3
Vehicles Waiting to Enter	veh	49.0	359.3	346.9	831.5	623.0

Consistent with the above, Graph 13 to Graph 18, overleaf, present some of the statistics set out in Table 20 to Table 22, and the detailed statistics presented at Appendix D3.

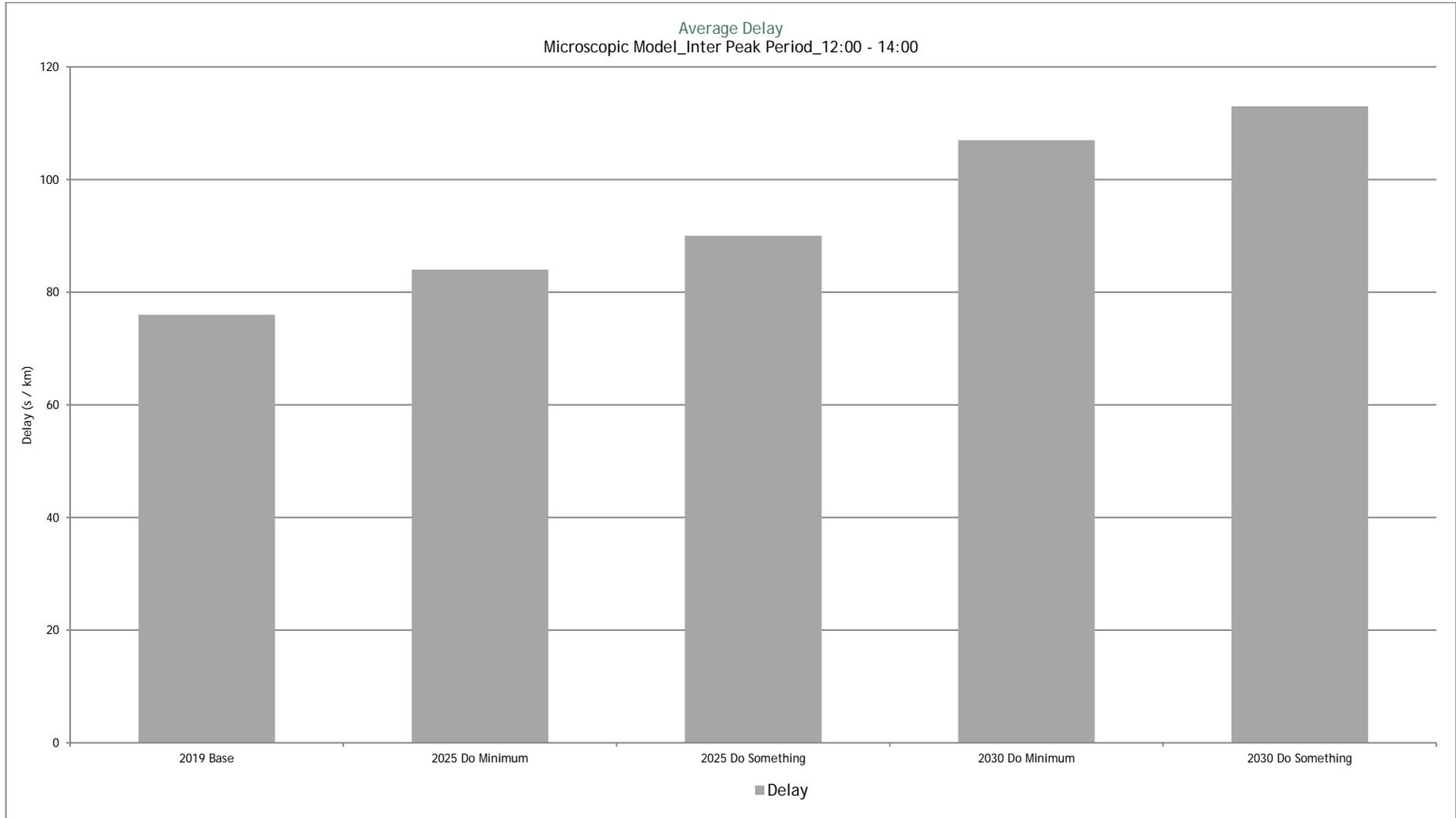


Graph 13: Subnetwork 4 Average Delay – AM Peak Period (07:30 – 09:30)



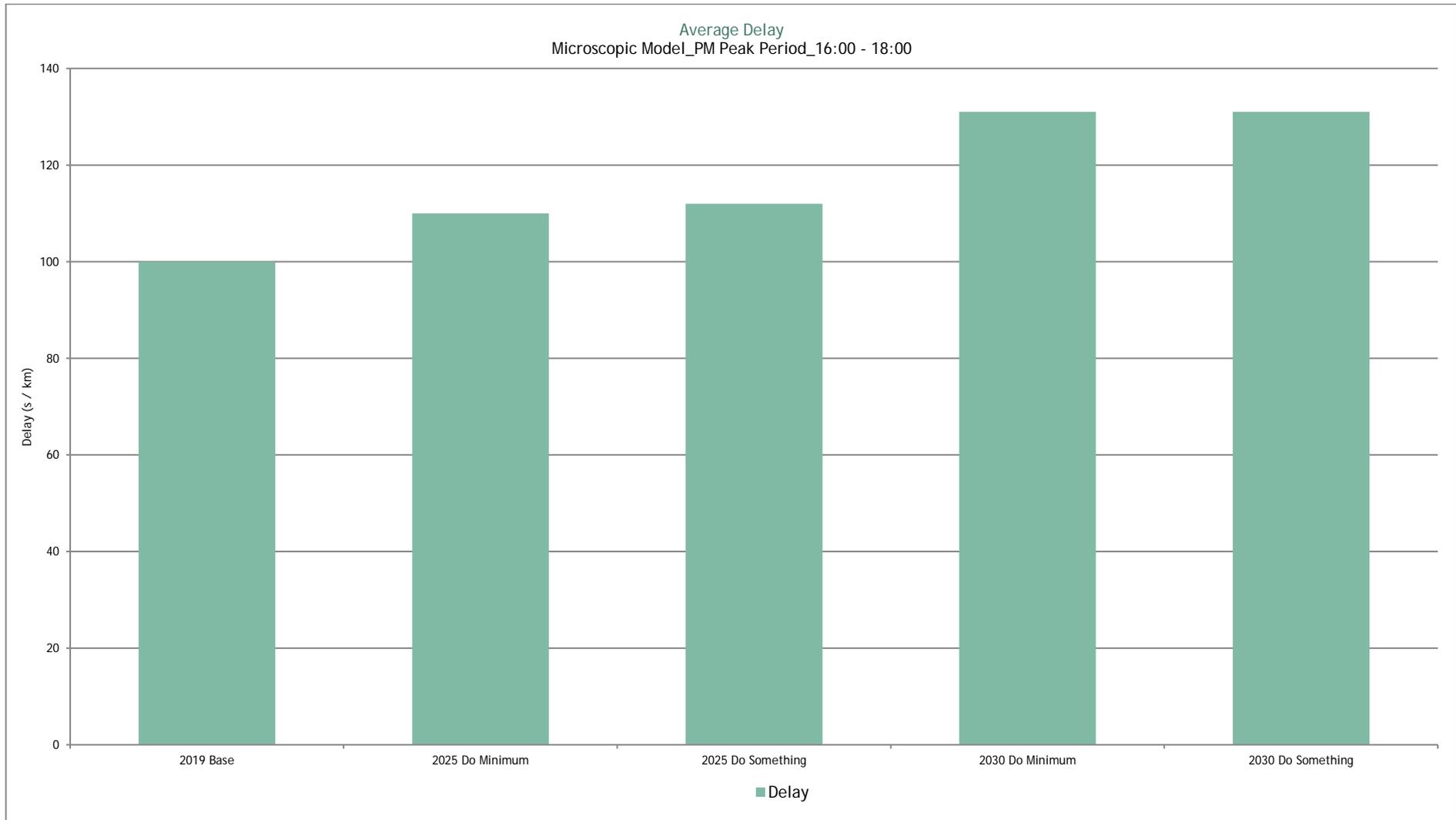


Graph 14: Subnetwork 4 Average Delay – Inter Peak Period (12:00 – 14:00)



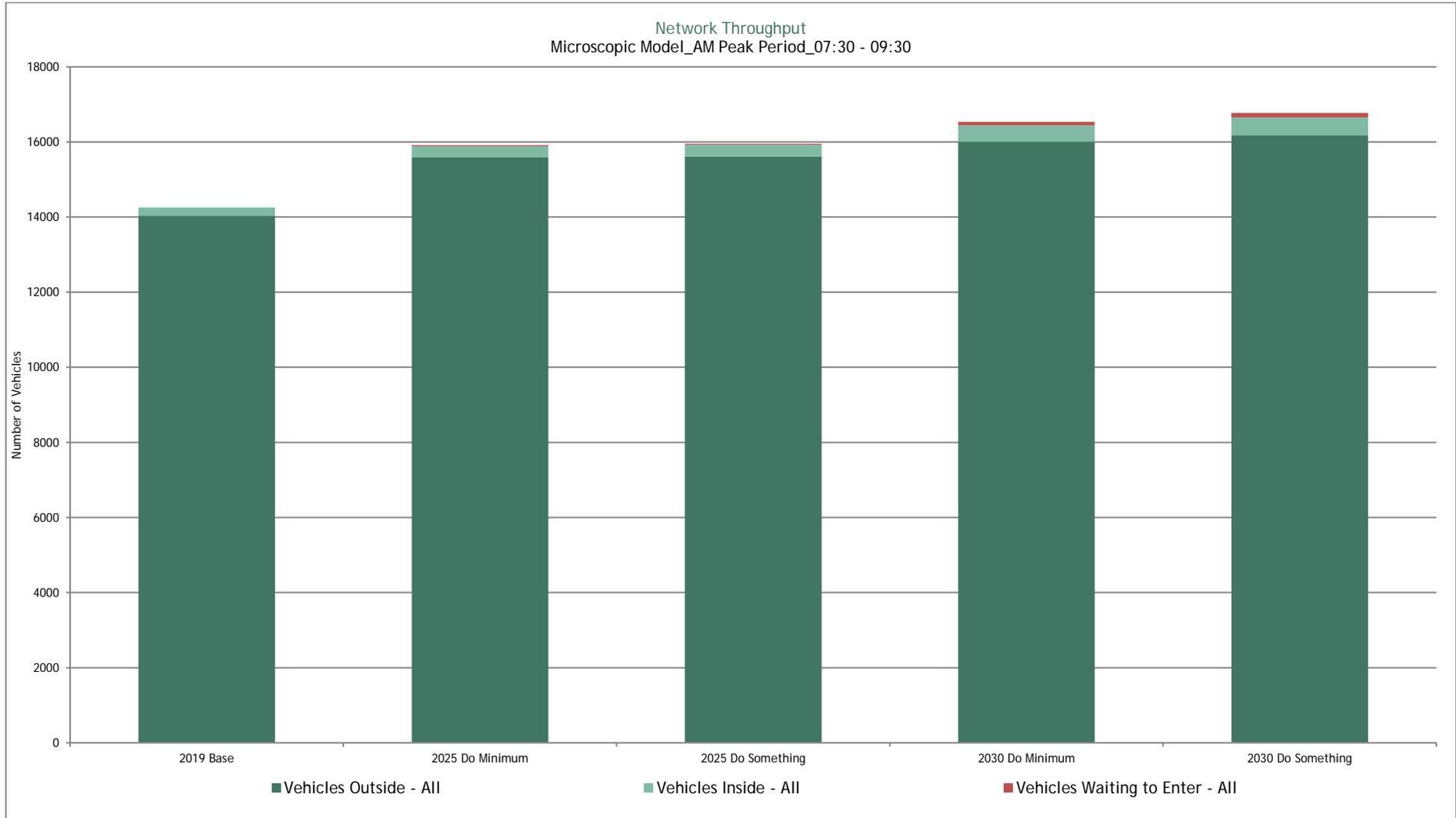


Graph 15: Subnetwork 4 Average Delay– PM Peak Period (16:00 – 18:00)



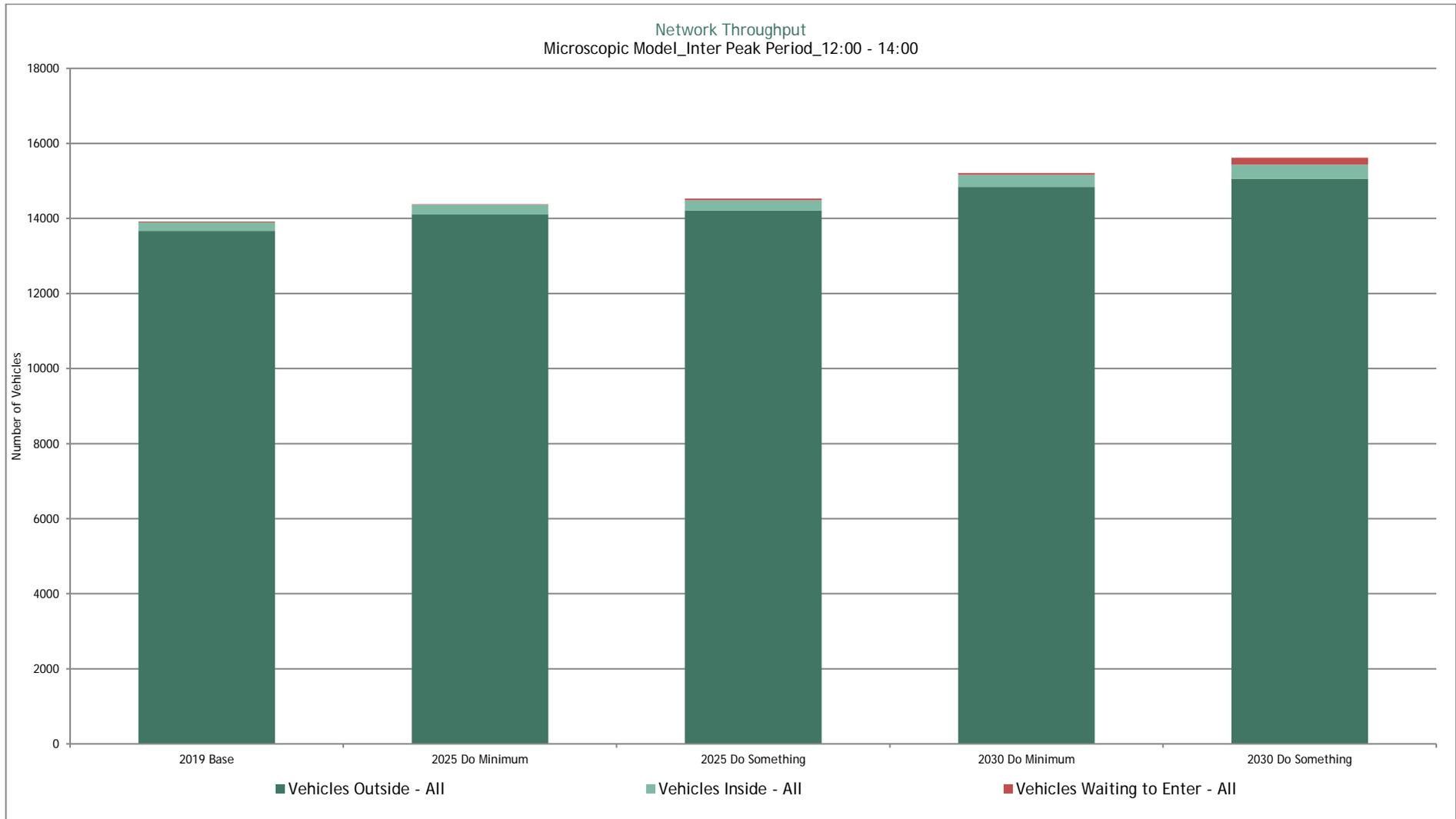


Graph 16: Subnetwork 4 Network Throughput – AM Peak Period (07:30 – 09:30)



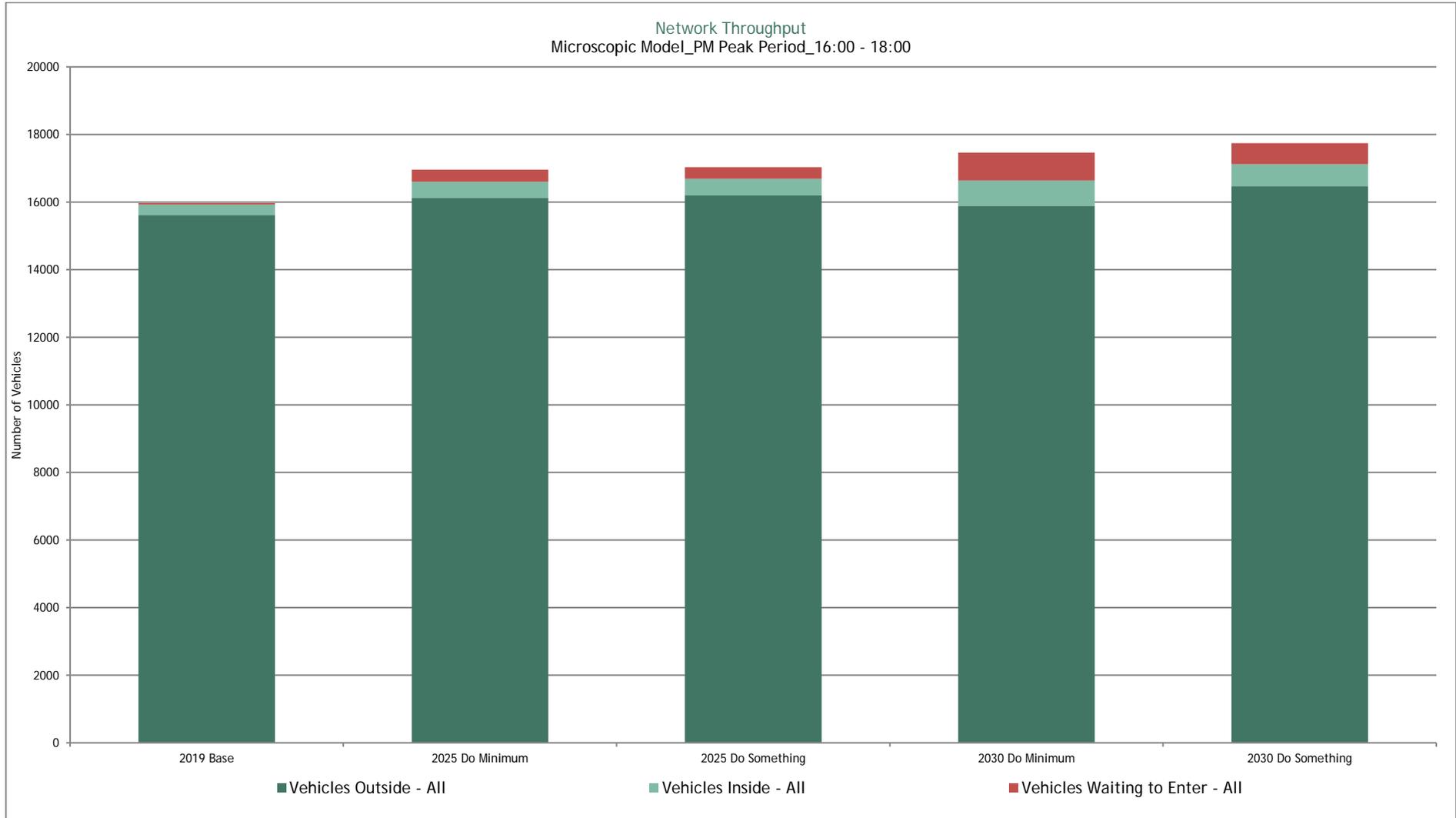


Graph 17: Subnetwork 4 Network Throughput – Inter Peak Period (12:00 – 14:00)





Graph 18: Subnetwork 4 Network Throughput – PM Peak Period (16:00 – 18:00)



6.2.6 Analysis

In 2025, Graph 13 to Graph 15 show that the proposed development is forecast to give rise to reasonably small increases in overall network delay compared to the corresponding do minimum scenario. For example, in 2025, the proposed development is predicted to give rise to an increase in overall network delay of no more than 6.3s per km. In 2030, the results show that this increase is not expected to be greater than 6.1s per km across all future assessment year scenarios.

Consistent with the results set out above, Graph 16 to Graph 18 generally demonstrate that the proposed development is unlikely to give rise to a significant impact on overall network throughput in 2025. That is, the results show that only small changes in the number of vehicles either queuing within the modelled network or waiting to enter the modelled network at the end of the simulation period is predicted to occur. In 2030 however, the modelling suggests that the proposed development could potentially give rise to more significant capacity issues across the network, with more noticeable increases in the number of vehicles waiting to enter the network or queuing inside the network at the end of the simulation period, particularly in the AM (07:30 - 09:30) and inter (12:00 - 14:00) peak periods.

In 2025, the network as a whole is unlikely to operate with any material differences with the development in place compared to the corresponding do minimum scenario. However, with the addition of more development-generated traffic in 2030, the modelling suggests that the capacity of the network could potentially be affected with the development in place.

6.3 Journey Time Analysis

As part of the validation of the base model, pre-defined journey time routes have been defined that cover key routes and congested junctions within each subnetwork. The journey time routes defined are illustrated on Diagram 1 to Diagram 3, overleaf.

Diagram 1: Journey Time Validation Routes – Subnetwork 1

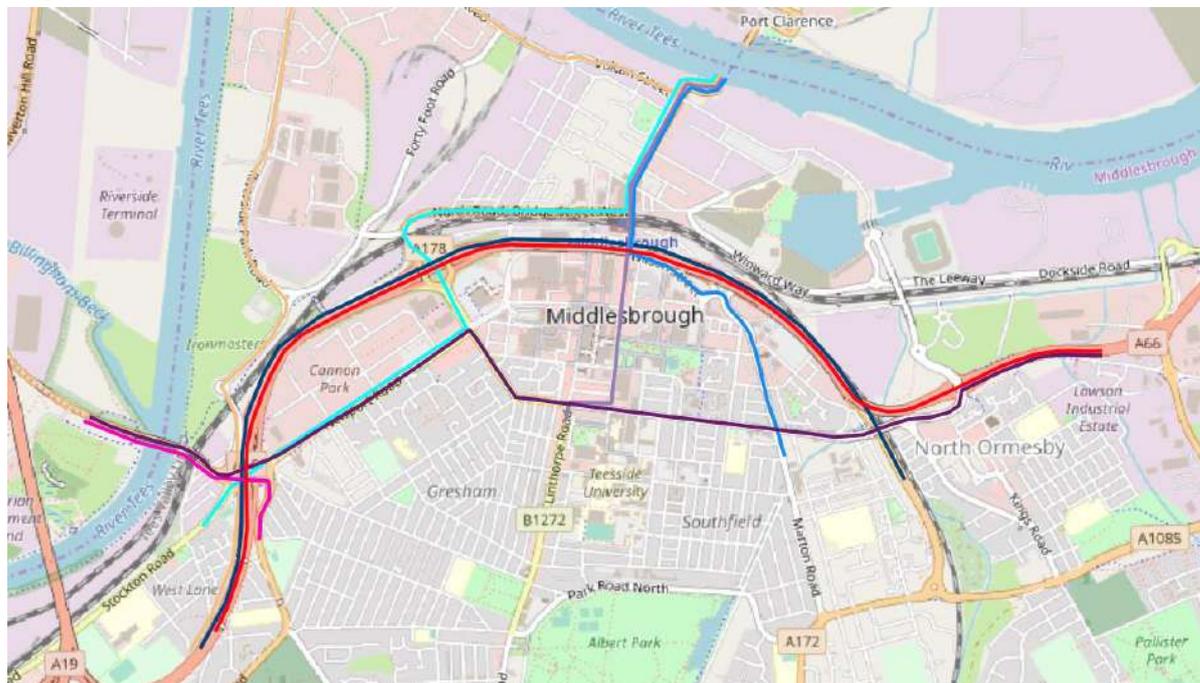


Diagram 2: Journey Time Validation Routes – Subnetwork 2

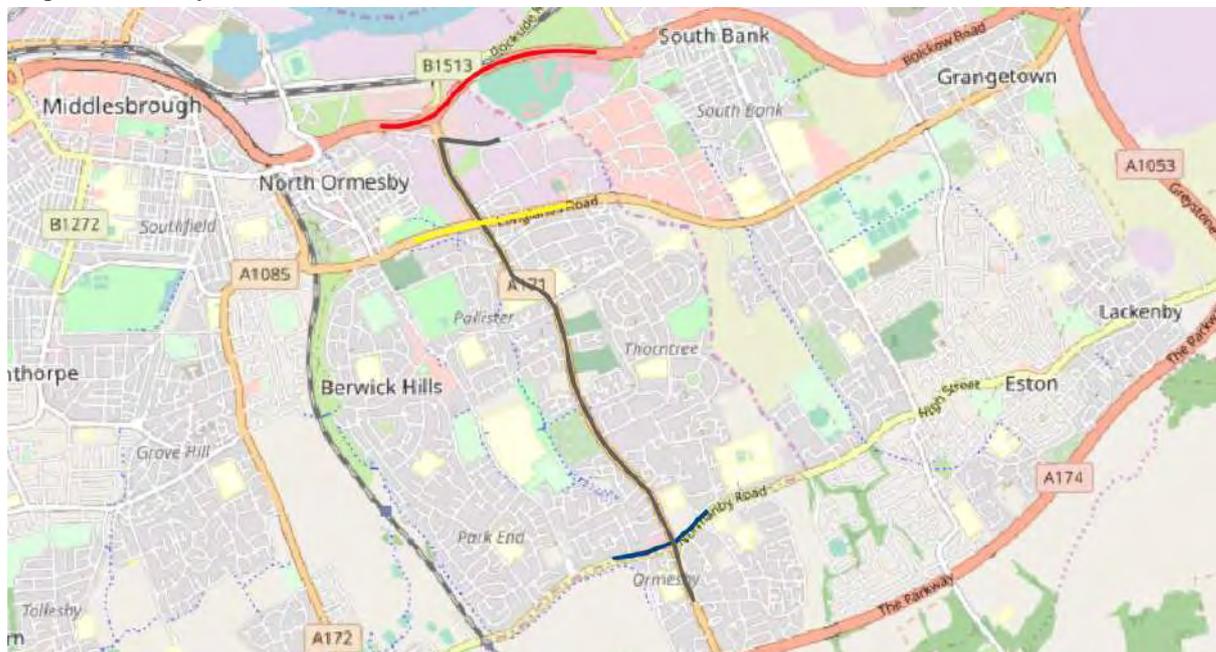
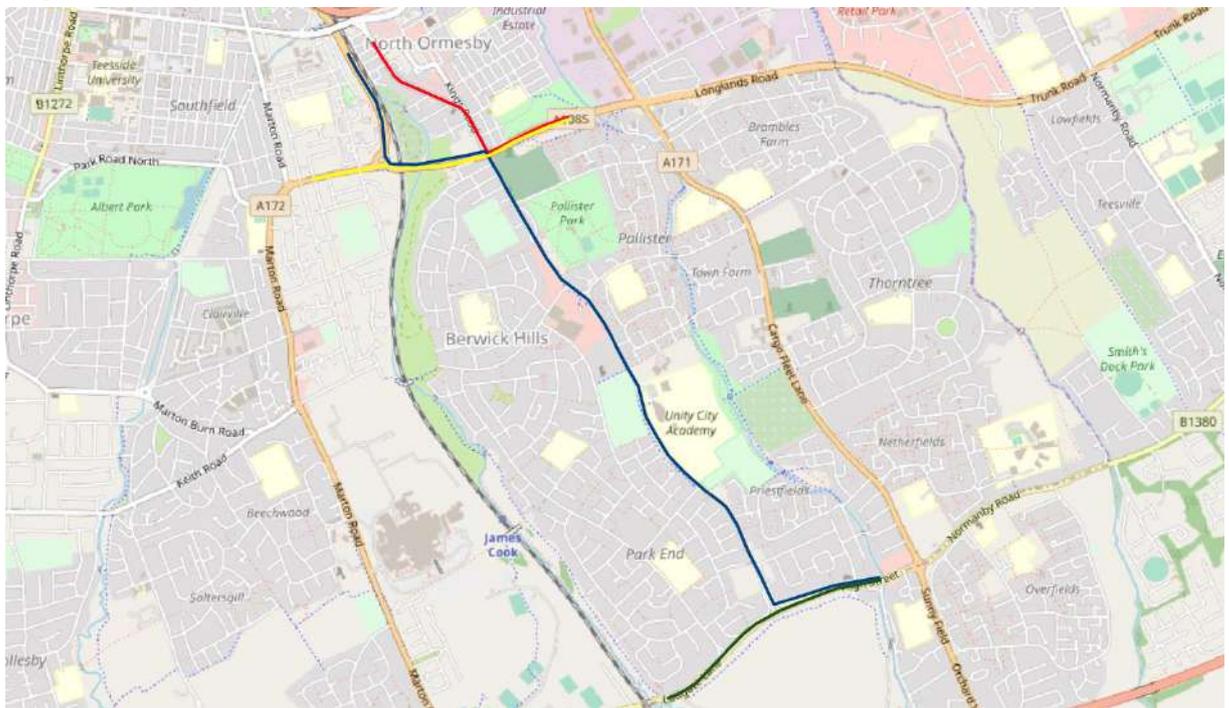


Diagram 3: Journey Time Validation Routes – Subnetwork 4



Journey time statistics have therefore been extracted from Aimsun for the routes set out above for each future assessment year scenario in order to understand the impact of the proposed development relative to the corresponding do minimum scenario.

In validating transport models, it is usual practice to consider that journey times that are modelled to within 15% of observed journey times (or within 1 minute if higher than 15%) are acceptable. This is because journey times can typically vary by 15% from day-to-day with shorter journey times experiencing much larger relative variations. This threshold has therefore been adopted for the purpose of this analysis in order to determine whether the proposed development would give rise to a material impact on journey times.

Notwithstanding this, whilst a development may give rise to a material impact on journey times, this does not necessarily mean that it should automatically be considered to be severe in the context of Paragraph 109 of the NPPF. Rather it suggests that drivers would experience an increase in journey time that is beyond what they would expect to encounter on a day-to-day basis. However, it does provide a minimum threshold below which a journey time impact should not be considered to be severe. Determining the severity of an increase is subjective and should be considered on a case-by-case basis, however for the purpose of this assessment the severity of an impact is defined as:

- For journey times less than 600s (ten minutes) an impact of $\geq 180s$ (three minutes) is considered severe.

- For journey times more than 600s (ten minutes) an impact of $\geq 30\%$ is considered severe.
- For journey times of exactly 600s (ten minutes) both of the criteria set out above would apply.

6.3.1 Subnetwork 1: Middlesbrough Central

A summary of the modelled journey times for Subnetwork 1, alongside the impact of the proposed development relative to the corresponding do minimum scenario, is presented in Table 23 to Table 28, overleaf. Consistent with the validation of the base model, journey time statistics are provided for the network peak hours and full modelled time periods. Material increases in journey times as a result of the proposed development are highlighted red. Journey time increases that, for the purpose of this assessment, could potentially be considered as severe are highlighted red and underlined.

Table 23: Subnetwork 1 Journey Time Analysis – AM Peak Hour (08:00 – 09:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	307.8	292.5	294.5	+2.0	+0.7%	293.8	298.6	+4.8	+1.6%
Route 01-B: A66 (East) to A66 (West) 	230.7	230.0	229.8	-0.1	-0.1%	231.0	236.9	+5.9	+2.6%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) 	701.4	835.3	843.6	+8.3	+1.0%	851.9	976.5	+124.7	+14.6%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) 	606.0	687.8	710.8	+23.1	+3.4%	762.2	828.6	+66.4	+8.7%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) 	271.5	298.5	305.6	+7.1	+2.4%	319.0	317.3	-1.7	-0.5%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) 	303.1	347.5	401.8	+54.4	+15.6%	350.9	405.0	+54.1	+15.4%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) 	111.6	114.5	115.5	+1.1	+0.9%	126.1	123.6	-2.5	-2.0%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) 	149.6	276.5	286.3	+9.9	+3.6%	291.0	388.4	+97.4	+33.5%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) 	301.3	324.2	327.1	+2.9	+0.9%	335.8	338.2	+2.3	+0.7%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) 	372.3	380.4	384.9	+4.5	+1.2%	384.8	386.2	+1.4	+0.4%
Route 06-A: A66 (West) to A172 (South) 	221.9	207.5	209.4	+2.0	+1.0%	208.7	213.3	+4.5	+2.2%
Route 06-B: A172 (South) to A66 (West) 	210.7	211.6	211.3	-0.3	-0.1%	212.3	213.6	+1.3	+0.6%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) 	401.7	450.7	469.0	+18.3	+4.1%	521.4	497.5	-24.0	-4.6%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) 	436.6	483.3	487.2	+3.9	+0.8%	531.7	535.1	+3.4	+0.6%
Route 08-A: A66 (West) to A178 Ferry Road (North) 	409.1	436.8	437.7	+0.9	+0.2%	447.1	514.6	+67.6	+15.1%
Route 08-B: A178 Ferry Road (North) to A66 (West) 	377.0	377.6	378.7	+1.0	+0.3%	386.3	385.8	-0.5	-0.1%

Table 24: Subnetwork 1 Journey Time Analysis – Inter Peak Hour (12:30 – 13:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	234.5	235.0	235.2	+0.3	+0.1%	235.2	238.3	+3.1	+1.3%
Route 01-B: A66 (East) to A66 (West) 	225.5	223.8	224.8	+1.1	+0.5%	225.0	243.8	+18.9	+8.4%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) 	660.2	708.6	742.2	+33.6	+4.7%	743.5	927.6	+184.2	+24.8%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) 	611.6	694.9	705.6	+10.7	+1.5%	723.4	985.1	+261.8	+36.2%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) 	250.4	283.3	283.8	+0.4	+0.2%	283.5	283.1	-0.4	-0.1%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) 	262.0	296.7	297.4	+0.6	+0.2%	310.9	322.1	+11.1	+3.6%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) 	104.6	104.9	104.5	-0.4	-0.4%	105.3	105.3	+0.0	+0.0%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) 	145.1	166.8	164.4	-2.5	-1.5%	158.2	171.1	+12.9	+8.2%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) 	313.2	355.0	350.5	-4.5	-1.3%	380.3	350.1	-30.2	-7.9%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) 	347.8	372.7	369.3	-3.4	-0.9%	373.9	364.3	-9.5	-2.6%
Route 06-A: A66 (West) to A172 (South) 	198.9	199.7	199.8	+0.1	+0.1%	199.9	200.2	+0.3	+0.2%
Route 06-B: A172 (South) to A66 (West) 	206.7	206.7	207.0	+0.3	+0.1%	207.5	208.3	+0.8	+0.4%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) 	425.2	483.9	476.5	-7.4	-1.5%	462.9	493.2	+30.3	+6.6%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) 	418.0	467.5	477.0	+9.5	+2.0%	458.2	472.7	+14.5	+3.2%
Route 08-A: A66 (West) to A178 Ferry Road (North) 	333.4	337.0	339.0	+1.9	+0.6%	341.2	342.6	+1.4	+0.4%
Route 08-B: A178 Ferry Road (North) to A66 (West) 	374.0	373.9	373.5	-0.4	-0.1%	374.8	373.3	-1.6	-0.4%

Table 25: Subnetwork 1 Journey Time Analysis – PM Peak Hour (16:30 – 17:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	266.2	266.2	266.3	+0.1	+0.0%	266.5	266.8	+0.3	+0.1%
Route 01-B: A66 (East) to A66 (West) 	253.0	293.1	319.0	+25.9	+8.8%	261.2	308.8	+47.6	+18.2%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) 	939.7	1,128.4	1,160.5	+32.1	+2.8%	1,061.1	1,247.9	+186.8	+17.6%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) 	826.5	777.1	746.8	-30.3	-3.9%	716.1	756.6	+40.4	+5.6%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) 	253.2	303.7	306.0	+2.2	+0.7%	304.8	312.8	+7.9	+2.6%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) 	345.9	470.3	502.8	+32.6	+6.9%	512.0	570.4	+58.4	+11.4%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) 	106.2	107.9	108.0	+0.1	+0.1%	108.1	111.0	+2.9	+2.7%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) 	161.6	397.5	425.0	+27.5	+6.9%	402.3	509.6	+107.3	+26.7%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) 	304.3	324.0	331.5	+7.5	+2.3%	335.4	352.3	+16.9	+5.0%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) 	383.5	403.0	404.9	+1.9	+0.5%	410.8	425.9	+15.1	+3.7%
Route 06-A: A66 (West) to A172 (South) 	204.5	205.0	205.0	+0.0	+0.0%	205.3	205.5	+0.2	+0.1%
Route 06-B: A172 (South) to A66 (West) 	233.5	275.2	300.8	+25.6	+9.3%	243.0	289.9	+46.8	+19.3%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) 	432.7	441.7	442.7	+1.1	+0.2%	471.4	481.0	+9.6	+2.0%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) 	508.9	520.0	520.2	+0.2	+0.0%	544.4	574.1	+29.6	+5.4%
Route 08-A: A66 (West) to A178 Ferry Road (North) 	381.7	394.7	393.3	-1.4	-0.4%	393.6	395.5	+1.9	+0.5%
Route 08-B: A178 Ferry Road (North) to A66 (West) 	413.9	483.2	495.1	+11.8	+2.5%	574.3	662.2	+87.9	+15.3%

Table 26: Subnetwork 1 Journey Time Analysis – AM Peak Period (07:30 – 09:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	307.8	291.0	292.4	+1.4	+0.5%	292.1	295.2	+3.1	+1.1%
Route 01-B: A66 (East) to A66 (West) 	230.7	228.5	228.5	+0.0	+0.0%	229.3	233.6	+4.3	+1.9%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) 	701.4	793.4	811.9	+18.5	+2.3%	818.3	930.0	+111.7	+13.7%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) 	606.0	667.5	681.9	+14.4	+2.2%	714.7	777.5	+62.8	+8.8%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) 	271.5	291.9	300.7	+8.8	+3.0%	310.5	310.4	-0.0	-0.0%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) 	303.1	337.7	371.9	+34.2	+10.1%	344.2	373.6	+29.4	+8.5%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) 	111.6	111.6	112.5	+0.9	+0.8%	118.9	117.8	-1.1	-0.9%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) 	149.6	237.0	251.1	+14.1	+5.9%	255.9	343.4	+87.5	+34.2%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) 	301.3	320.0	324.0	+4.0	+1.2%	333.6	334.8	+1.2	+0.4%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) 	372.3	380.4	388.2	+7.8	+2.0%	391.0	397.6	+6.6	+1.7%
Route 06-A: A66 (West) to A172 (South) 	221.9	206.0	207.4	+1.4	+0.7%	207.1	210.0	+2.9	+1.4%
Route 06-B: A172 (South) to A66 (West) 	210.7	210.5	210.4	-0.1	-0.0%	211.1	212.4	+1.2	+0.6%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) 	401.7	437.5	452.5	+14.9	+3.4%	489.1	480.3	-8.8	-1.8%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) 	436.6	480.5	485.1	+4.6	+1.0%	517.2	517.6	+0.4	+0.1%
Route 08-A: A66 (West) to A178 Ferry Road (North) 	409.1	415.1	417.5	+2.4	+0.6%	424.7	464.0	+39.3	+9.3%
Route 08-B: A178 Ferry Road (North) to A66 (West) 	377.0	374.4	375.6	+1.2	+0.3%	381.5	380.8	-0.7	-0.2%

**Table 27: Subnetwork 1 Journey Time Analysis – Inter Peak Period (12:00 – 14:00)**

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	234.5	234.9	235.2	+0.3	+0.1%	235.3	239.8	+4.5	+1.9%
Route 01-B: A66 (East) to A66 (West) ■	225.5	223.7	224.6	+0.9	+0.4%	224.7	246.8	+22.1	+9.8%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) ■	660.2	706.9	746.7	+39.8	+5.6%	740.7	940.4	+199.7	+27.0%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) ■	611.6	675.8	707.4	+31.6	+4.7%	718.1	970.7	+252.6	+35.2%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) ■	250.4	284.3	286.9	+2.6	+0.9%	286.2	288.8	+2.6	+0.9%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) ■	262.0	299.0	298.4	-0.6	-0.2%	319.4	328.0	+8.6	+2.7%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) ■	104.6	104.2	103.9	-0.2	-0.2%	104.6	104.9	+0.3	+0.3%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) ■	145.1	168.8	165.7	-3.1	-1.8%	160.4	172.4	+12.0	+7.5%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) ■	313.2	345.8	348.6	+2.8	+0.8%	384.7	349.1	-35.6	-9.3%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) ■	347.8	371.6	365.6	-6.0	-1.6%	372.5	371.2	-1.3	-0.4%
Route 06-A: A66 (West) to A172 (South) ■	198.9	199.6	199.8	+0.2	+0.1%	199.9	200.2	+0.3	+0.1%
Route 06-B: A172 (South) to A66 (West) ■	206.7	206.7	206.9	+0.2	+0.1%	207.4	208.0	+0.7	+0.3%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) ■	425.2	473.2	471.9	-1.3	-0.3%	461.7	482.8	+21.1	+4.6%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) ■	418.0	466.5	471.1	+4.6	+1.0%	459.1	475.1	+16.1	+3.5%
Route 08-A: A66 (West) to A178 Ferry Road (North) ■	333.4	337.1	337.9	+0.8	+0.2%	340.9	342.3	+1.5	+0.4%
Route 08-B: A178 Ferry Road (North) to A66 (West) ■	374.0	372.5	372.9	+0.4	+0.1%	375.0	373.8	-1.2	-0.3%

Table 28: Subnetwork 1 Journey Time Analysis – PM Peak Period (16:00 – 18:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	266.2	266.2	266.3	+0.1	+0.0%	266.5	267.0	+0.5	+0.2%
Route 01-B: A66 (East) to A66 (West) 	253.0	302.8	331.6	+28.7	+9.5%	260.3	317.3	+57.1	+21.9%
Route 02-A: A1032 Newport Bridge (West) to A66 (East) 	939.7	1,062.4	1,091.9	+29.5	+2.8%	1,015.1	1,186.4	+171.2	+16.9%
Route 02-B: A66 (East) to A1032 Newport Bridge (West) 	826.5	772.2	757.7	-14.5	-1.9%	701.3	740.2	+38.9	+5.5%
Route 03-A: A172 Marton Road (South) to A178 Ferry Road (North) 	253.2	298.0	297.2	-0.8	-0.3%	296.7	303.2	+6.6	+2.2%
Route 03-B: A178 Ferry Road (North) to A172 Marton Road (South) 	345.9	418.1	438.8	+20.8	+5.0%	457.9	495.0	+37.1	+8.1%
Route 04-A: A1032 Heywood Street (South) to A1032 Newport Bridge (West) 	106.2	107.2	107.2	+0.1	+0.1%	107.9	109.3	+1.4	+1.3%
Route 04-B: A1032 Newport Bridge (West) to A1032 Heywood Street (South) 	161.6	353.2	384.5	+31.3	+8.9%	368.4	472.6	+104.2	+28.3%
Route 05-A: B1272 Linthorpe Road (South) to A178 Ferry Road (North) 	304.3	323.9	329.6	+5.7	+1.8%	332.0	340.6	+8.6	+2.6%
Route 05-B: A178 Ferry Road (North) to B1272 Linthorpe Road (South) 	383.5	391.6	398.4	+6.7	+1.7%	405.6	411.0	+5.4	+1.3%
Route 06-A: A66 (West) to A172 (South) 	204.5	205.0	205.1	+0.1	+0.1%	205.2	205.7	+0.5	+0.3%
Route 06-B: A172 (South) to A66 (West) 	233.5	285.1	313.6	+28.5	+10.0%	242.2	298.7	+56.5	+23.3%
Route 07-A: B6541 Newport Road (South) to A178 Ferry Road (North) 	432.7	439.1	444.3	+5.2	+1.2%	465.4	471.8	+6.4	+1.4%
Route 07-B: A178 Ferry Road (North) to B6541 Newport Road (South) 	508.9	510.4	513.9	+3.6	+0.7%	535.0	554.6	+19.6	+3.7%
Route 08-A: A66 (West) to A178 Ferry Road (North) 	381.7	393.6	391.9	-1.7	-0.4%	388.9	389.5	+0.6	+0.1%
Route 08-B: A178 Ferry Road (North) to A66 (West) 	413.9	491.7	498.2	+6.6	+1.3%	571.0	645.3	+74.3	+13.0%

6.3.2 Subnetwork 2: A171 Cargo Fleet Lane Corridor

A summary of the modelled journey times for Subnetwork 2, alongside the impact of the proposed development relative to the corresponding do minimum scenario, is presented in Table 29 to Table 34, overleaf. Consistent with the validation of the base model, journey time statistics are provided for the network peak hours and full modelled time periods. Material increases in journey times as a result of the proposed development are highlighted red. Journey time increases that, for the purpose of this assessment, could potentially be considered as severe are highlighted red and underlined.

In addition to the above, cumulative time-distance graphs of the modelled journey time data have also been plotted.

Table 29: Subnetwork 2 Journey Time Analysis – AM Peak Hour (08:00 – 09:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	105.8	96.8	95.9	-1.0	-1.0%	98.4	96.5	-1.9	-2.0%
Route 01-B: A66 (East) to A66 (West) ■	109.7	183.7	192.1	+8.5	+4.6%	201.2	281.7	+80.4	+40.0%
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) ■	124.1	158.4	180.8	+22.3	+14.1%	183.8	475.5	+291.6	+158.6%
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) ■	173.3	171.5	174.4	+2.9	+1.7%	171.7	183.4	+11.8	+6.9%
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) ■	520.3	773.5	840.2	+66.7	+8.6%	793.8	2,020.3	+1226.5	+154.5%
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) ■	428.4	505.2	536.4	+31.2	+6.2%	560.2	557.7	-2.5	-0.4%
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) ■	74.1	77.9	78.1	+0.2	+0.2%	81.5	99.1	+17.6	+21.7%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) ■	89.3	256.8	274.2	+17.4	+6.8%	287.5	303.5	+16.0	+5.6%

Table 30: Subnetwork 2 Journey Time Analysis – Inter Peak Hour (12:30 – 13:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	95.6	231.3	391.2	+159.9	+69.2%	242.3	544.8	+302.5	+124.9%
Route 01-B: A66 (East) to A66 (West) ■	96.5	106.4	124.2	+17.7	+16.6%	106.0	251.2	+145.3	+137.1%
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) ■	107.3	109.2	108.7	-0.5	-0.4%	108.2	225.9	+117.7	+108.7%
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) ■	170.5	169.8	170.6	+0.8	+0.5%	173.1	459.2	+286.1	+165.3%
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) ■	377.6	446.8	494.5	+47.7	+10.7%	524.6	1,514.9	+990.3	+188.8%
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) ■	373.5	417.1	423.1	+6.0	+1.4%	420.3	546.3	+126.0	+30.0%
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) ■	50.1	58.1	62.7	+4.7	+8.1%	58.7	90.4	+31.7	+54.1%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) ■	59.8	68.3	79.3	+11.0	+16.0%	72.2	98.5	+26.2	+36.3%

Table 31: Subnetwork 2 Journey Time Analysis – PM Peak Hour (16:30 – 17:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	126.3	483.6	749.8	+266.1	+55.0%	440.2	666.7	+226.5	+51.5%
Route 01-B: A66 (East) to A66 (West) ■	99.6	173.1	473.5	+300.4	+173.5%	320.7	766.0	+445.4	+138.9%
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) ■	111.1	113.2	130.1	+16.9	+14.9%	152.8	210.8	+58.0	+38.0%
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) ■	178.6	180.7	186.2	+5.4	+3.0%	209.8	285.4	+75.6	+36.0%
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) ■	395.4	577.9	759.3	+181.5	+31.4%	664.3	1,002.2	+337.9	+50.9%
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) ■	586.9	999.9	1,243.1	+243.2	+24.3%	1,164.3	1,899.6	+735.4	+63.2%
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) ■	57.4	68.3	71.2	+2.9	+4.2%	74.5	87.6	+13.1	+17.6%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) ■	142.9	301.6	336.0	+34.4	+11.4%	355.7	314.5	-41.2	-11.6%

Table 32: Subnetwork 2 Journey Time Analysis – AM Peak Period (07:30 – 09:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	111.0	96.8	98.3	+1.5	+1.5%	99.1	98.6	-0.4	-0.4%
Route 01-B: A66 (East) to A66 (West) ■	103.0	183.7	162.1	-21.6	-11.7%	172.2	243.2	+71.0	+41.2%
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) ■	121.5	158.4	162.9	+4.5	+2.8%	168.2	489.3	+321.1	+190.9%
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) ■	172.5	171.5	174.6	+3.2	+1.9%	171.3	179.9	+8.6	+5.0%
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) ■	529.3	773.5	841.4	+67.9	+8.8%	798.7	1,763.5	+964.8	+120.8%
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) ■	400.1	505.2	477.8	-27.4	-5.4%	503.4	522.2	+18.8	+3.7%
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) ■	66.7	77.9	74.4	-3.5	-4.5%	78.4	97.4	+19.0	+24.2%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) ■	79.6	256.8	230.0	-26.8	-10.5%	252.8	254.9	+2.0	+0.8%

Table 33: Subnetwork 2 Journey Time Analysis – Inter Peak Period (12:00 – 14:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) ■	101.2	233.6	390.2	+156.6	+67.0%	252.0	483.0	+231.0	+91.7%
Route 01-B: A66 (East) to A66 (West) ■	96.4	105.9	120.1	+14.3	+13.5%	105.8	252.6	+146.8	+138.7%
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) ■	107.7	108.9	108.3	-0.6	-0.5%	108.4	255.2	+146.8	+135.4%
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) ■	169.1	169.5	170.4	+0.9	+0.6%	171.1	436.0	+264.9	+154.8%
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) ■	374.7	442.0	482.3	+40.2	+9.1%	507.9	1,425.0	+917.1	+180.6%
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) ■	379.5	405.9	419.7	+13.8	+3.4%	417.7	530.6	+112.8	+27.0%
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) ■	50.9	58.9	63.1	+4.2	+7.2%	60.1	99.5	+39.4	+65.6%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) ■	60.0	69.9	80.3	+10.4	+14.9%	73.1	101.1	+28.0	+38.3%

Table 34: Subnetwork 2 Journey Time Analysis – PM Peak Period (16:00 – 18:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A66 (West) to A66 (East) 	113.4	436.4	636.5	<u>+200.2</u>	<u>+45.9%</u>	414.8	675.8	<u>+261.1</u>	<u>+62.9%</u>
Route 01-B: A66 (East) to A66 (West) 	99.2	163.6	420.3	<u>+256.7</u>	<u>+156.9%</u>	292.4	739.4	<u>+447.0</u>	<u>+152.9%</u>
Route 02-B: A1085 Longlands Road (West) to A1085 Longlands Road (East) 	112.3	113.3	123.0	+9.8	+8.6%	151.7	221.3	<u>+69.6</u>	<u>+45.9%</u>
Route 02-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	177.4	180.6	184.7	+4.1	+2.3%	216.6	313.4	<u>+96.7</u>	<u>+44.7%</u>
Route 03-A: A171 Sunnyfield (South) to South Bank Road (East) 	393.5	583.8	699.7	<u>+116.0</u>	<u>+19.9%</u>	661.4	976.6	<u>+315.3</u>	<u>+47.7%</u>
Route 03-B: South Bank Road (East) to A171 Sunnyfield (South) 	552.3	936.5	1,181.3	<u>+244.8</u>	<u>+26.1%</u>	1,166.4	1,789.6	<u>+623.2</u>	<u>+53.4%</u>
Route 04-A: B1380 High Street (West) to B1380 Normanby Road (East) 	57.3	67.5	69.9	+2.4	+3.5%	74.4	84.9	+10.5	+14.2%
Route 04-B: B1380 Normanby Road (East) to B1380 High Street (West) 	145.3	280.5	309.8	+29.4	+10.5%	343.4	309.5	-33.9	-9.9%

6.3.3 Subnetwork 4: Ormesby Road Corridor

A summary of the modelled journey times for Subnetwork 4, alongside the impact of the proposed development relative to the corresponding do minimum scenario, is presented in Table 35 to Table 40, overleaf. Consistent with the validation of the base model, journey time statistics are provided for the network peak hours and full modelled time periods. Material increases in journey times as a result of the proposed development are highlighted red. Journey time increases that, for the purpose of this assessment, could potentially be considered as severe are highlighted red and underlined.

In addition to the above, cumulative time-distance graphs of the modelled journey time data have also been plotted.

Table 35: Subnetwork 4 Journey Time Analysis – AM Peak Hour (08:00 – 09:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	276.8	257.4	280.5	+23.1	+9.0%	280.0	284.5	+27.1	+9.7%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	165.2	164.9	171.2	+6.2	+3.8%	183.3	191.0	+26.0	+14.2%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	82.2	83.4	83.5	+0.1	+0.1%	83.5	83.7	+0.3	+0.4%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	86.0	98.0	98.1	+0.1	+0.1%	100.8	102.3	+4.3	+4.3%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	425.3	627.8	702.7	+74.9	+11.9%	1,016.3	1,041.9	<u>+414.1</u>	<u>+40.7%</u>
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	453.6	440.7	471.2	+30.4	+6.9%	479.0	483.3	+42.6	+8.9%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	188.4	190.3	188.4	-2.0	-1.0%	188.2	189.9	-0.5	-0.2%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	205.0	207.8	213.6	+5.8	+2.8%	225.8	233.8	+26.0	+11.5%

Table 36: Subnetwork 4 Journey Time Analysis – Inter Peak Hour (12:30 – 13:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	211.9	234.4	231.4	-3.0	-1.3%	288.6	311.3	+77.0	+26.7%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	145.1	149.4	150.2	+0.8	+0.5%	159.7	157.8	+8.4	+5.2%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	81.9	82.7	82.7	+0.0	+0.0%	83.0	83.1	+0.4	+0.5%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	83.7	88.2	86.4	-1.8	-2.1%	87.9	88.3	+0.1	+0.1%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	381.5	406.0	392.6	-13.4	-3.3%	519.1	512.8	+106.8	+20.6%
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	405.8	430.5	428.5	-2.0	-0.5%	494.6	518.4	+87.9	+17.8%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	200.5	204.6	201.2	-3.4	-1.7%	206.2	174.9	-29.7	-14.4%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	192.6	199.6	196.5	-3.1	-1.6%	208.0	206.9	+7.3	+3.5%

Table 37: Subnetwork 4 Journey Time Analysis – PM Peak Hour (16:30 – 17:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	342.8	755.6	772.8	+17.2	+2.3%	745.1	804.2	+48.5	+6.5%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	162.8	176.5	185.4	+9.0	+5.1%	213.5	221.1	+44.6	+20.9%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	85.3	83.4	83.6	+0.1	+0.2%	99.8	83.5	+0.1	+0.1%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	91.9	92.4	91.9	-0.5	-0.6%	144.9	92.5	+0.0	+0.0%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	454.7	481.0	586.1	+105.0	+21.8%	642.4	661.0	+179.9	+28.0%
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	547.7	893.0	909.8	+16.9	+1.9%	1,096.4	973.6	+80.7	+7.4%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	283.4	318.0	305.8	-12.2	-3.8%	348.2	332.7	+14.7	+4.2%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	214.3	224.5	234.4	+9.8	+4.4%	269.3	275.0	+50.4	+18.7%

Table 38: Subnetwork 4 Journey Time Analysis – AM Peak Period (07:30 – 09:30)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	250.1	244.7	263.0	+18.3	+7.5%	256.7	265.0	+20.3	+7.9%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	159.7	160.2	161.5	+1.3	+0.8%	174.0	177.8	+17.6	+10.1%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	81.9	82.9	83.0	+0.2	+0.2%	83.0	83.2	+0.4	+0.4%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	86.3	96.3	97.2	+0.8	+0.9%	97.8	99.2	+2.9	+2.9%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	447.1	572.5	644.8	+72.3	+12.6%	946.9	990.3	<u>+417.8</u>	<u>+44.1%</u>
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	428.9	428.2	451.7	+23.5	+5.5%	454.5	462.2	+34.0	+7.5%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	188.7	190.5	189.9	-0.7	-0.3%	190.4	190.6	+0.1	+0.1%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	199.2	202.8	203.7	+0.9	+0.5%	216.6	221.0	+18.2	+8.4%

Table 39: Subnetwork 4 Journey Time Analysis – Inter Peak Period (12:00 – 14:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	208.8	232.6	237.9	+5.3	+2.3%	283.5	300.2	+67.6	+23.9%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	144.8	148.4	154.7	+6.3	+4.2%	158.3	158.8	+10.4	+6.6%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	81.9	82.7	82.8	+0.0	+0.0%	83.0	83.1	+0.4	+0.5%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	83.5	87.7	86.9	-0.8	-0.9%	88.0	88.5	+0.8	+0.9%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	382.2	406.8	399.0	-7.8	-1.9%	518.6	528.4	+121.6	+23.4%
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	401.9	429.8	436.2	+6.4	+1.5%	494.1	508.6	+78.9	+16.0%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	202.8	205.0	207.4	+2.4	+1.2%	210.9	216.7	+11.7	+5.6%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	192.3	197.7	202.5	+4.7	+2.4%	206.8	209.3	+11.6	+5.6%

Table 40: Subnetwork 4 Journey Time Analysis – PM Peak Period (16:00 – 18:00)

Route	2019 Base (s)	2025 Do Minimum (s)	2025 Do Something (s)	Difference (s)	Difference (%)	2030 Do Minimum (s)	2030 Do Something (s)	Difference (s)	Difference (%)
Route 01-A: A1085 Longlands Road (West) to 1085 Longlands Road (East) 	331.3	690.2	665.8	-24.3	-3.5%	679.1	715.0	+24.8	+3.7%
Route 01-B: A1085 Longlands Road (East) to A1085 Longlands Road (West) 	160.7	172.1	180.6	+8.5	+5.0%	220.9	213.4	+41.3	+18.7%
Route 02-A: B1380 Ladgate Lane (West) to B1380 High Street (East) 	85.3	83.4	83.7	+0.3	+0.4%	98.2	83.6	+0.2	+0.2%
Route 02-B: B1380 High Street (East) to B1380 Ladgate Lane (West) 	91.6	92.7	92.7	-0.1	-0.1%	136.5	93.6	+0.8	+0.6%
Route 03-A: B1380 High Street (East) to A172 via Ormesby Road 	444.2	478.1	551.3	+73.3	+15.3%	597.3	634.4	+156.4	+26.2%
Route 03-B: A172 to B1380 High Street (East) via Ormesby Road 	532.7	847.6	839.8	-7.8	-0.9%	1,042.4	963.7	+116.1	+11.1%
Route 04-A: West Terrace to A1085 Longlands Road (East) 	268.6	306.5	289.6	-17.0	-5.5%	334.5	309.8	+3.2	+1.0%
Route 04-B: A1085 Longlands Road (East) to West Terrace 	210.9	221.4	227.9	+6.5	+2.9%	273.2	267.5	+46.1	+16.9%

6.3.4 Analysis

The impacts identified from the journey time analysis is summarised in Table 41, below.

Table 41: Journey Time Analysis Summary

Time Period	2025 Future Assessment Year Scenario						2030 Future Assessment Year Scenario					
	Material			Potential Severe			Material			Potential Severe		
	SN1	SN2	SN4	SN1	SN2	SN4	SN1	SN2	SN4	SN1	SN2	SN4
08:00 - 09:00	0	0	0	0	0	0	2	3	1	0	2	1
07:30 - 09:30	0	0	0	0	0	0	1	3	1	0	2	1
12:30 - 13:30	0	1	0	0	0	0	2	6	3	1	3	0
12:00 - 14:00	0	1	0	0	0	0	2	6	3	1	3	0
16:30 - 17:30	0	4	1	0	4	0	3	5	1	0	4	0
16:00 - 18:00	0	4	0	0	3	0	2	6	1	0	4	0
Total	11			7			51			22		

Table 41 shows that:

- In the 2025 future assessment year scenario, the proposed development is predicted to give rise to a material impact on 11 routes across all assessment periods. The impact is potentially considered severe on 7 of these routes. Considering the above in more detail, this shows that:
 - 10 of the 11 journey time routes materially affected by the proposed development are in Subnetwork 2. The other remaining journey time route is in Subnetwork 4. No journey time routes are predicted to be materially affected in Subnetwork 1.
 - All 7 journey time routes potentially severely affected by the proposed development are in Subnetwork 2.
- In the 2030 future assessment year scenario, the proposed development is predicted to give rise to a material impact on 51 routes across all assessment periods. The impact is potentially considered severe on 22 of these routes. Considering the above in more detail, this shows that:
 - 29 of the 51 journey time routes materially affected by the proposed development are in Subnetwork 2. Of the remaining 22 journey time routes, 12 of these are in Subnetwork 1 and 10 are in Subnetwork 4.

- 18 journey time routes potentially severely affected by the proposed development are in Subnetwork 2. However, only two routes in both Subnetwork 1 and Subnetwork 4 are predicted to be potentially severely affected by the proposed development.

6.4 Junction Statistics Analysis - Microscopic Model

As set out at section 5.2, an initial screening exercise has been undertaken using the macroscopic model results. To do this, a macro function component has been used to calculate the ratio of volume to capacity (V/C) for each turning movement in the model for each future assessment year scenario. The results of the screening exercise are summarised at section 5.2 and provided in full at Appendix C. The screening exercise determined that junction assessments were required at 17 junctions across Subnetwork 1, Subnetwork 2 and Subnetwork 4. In addition to the above, further analysis of the model outputs determined that a further 2 junctions were required to be assessed, resulting in a total of 19 junctions being assessed using the microscopic modelling results. These are:

- J-01: Riverside Park Road / Ironmasters Way.
- J-02: Newport Interchange.
- J-03: Hartington Interchange.
- J-04: Metz Bridge Road / A178 North Road .
- J-05: Newport Road / Marsh Street.
- J-06: Lower Feversham Street / Cleveland Street.
- J-07: West Terrace / Cromwell Street.
- J-08: A66 / Borough Road GSJ.
- J-09: Shepherdson Way / Heath Road.
- J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield.
- J-11: A171 Cargo Fleet Lane / A1085 Longlands Road.
- J-12: A171 Cargo Fleet Lane / Cranmore Road.
- J-13: A171 Cargo Fleet Lane / Minor Access Road.

- J-14: A66 / A171 Cargo Fleet Lane Throughabout.
- J-15: A171 Cargo Fleet Lane / College Road.
- J-16: A171 Cargo Fleet Lane / South Bank Road.
- J-17: B1380 Ladgate Lane / Ormesby Road.
- J-18: Ormesby Road / A1085 Longlands Road / Kings Road.

With the above in mind, and to understand the impact of the proposed development at key locations across the local highway network, detailed junction statistics have been extracted from the relevant microsimulation subnetwork for all future assessment year scenarios.

Appendix E presents statistics for each arm of the junction. A 15-minute extraction period was used to show the build-up and decay of traffic in more detail and the statistics presented cover the full model time periods (07:30 to 09:30, 12:00 to 14:00 and 16:00 to 18:00 hours). Table 42, below, explains the statistics that have been presented.

Table 42: Individual Arm Statistics Description

Statistic	Units	Analytical Use
Flow	veh/h	This shows the actual traffic flow on each arm of the junction.
Delay	s	This shows the delay experienced by each vehicle on each arm of the junction and is calculated as the difference between the actual travel time and free-flow travel time.
Mean Queue	veh	This shows the time-averaged queue.
Max Queue	veh	This shows the maximum length of queue observed on each arm.
Speed	km/h	This shows the average speed on each arm of the junction.

For analysis purposes, peak hour statistics have been derived for each of the arms approaching the junction. The method used is described in Table 43, below.

Table 43: Description of Statistics

Statistic	Units	Description of Statistic
Flow	veh/h	The total traffic flow through the junction, averaged over time.
Delay	s	The average delay per vehicle passing through the junction.
Mean Queue	veh	The average mean queue at the junction.
Max Queue	veh	The average maximum queue at the junction.
Speed	km/h	The average speed of a vehicle passing through the junction.

A review of the model outputs for each junction has been undertaken and a summary the likely impacts as a result of the proposed development is set out in Table 44, below. This review identifies that the impact of the proposed development is considered significant at 12 of the 19 junctions considered.

Table 44: Summary of Impacts

Reference	Junction Name	Identified Impact		
		AM	IP	PM
J-01	Riverside Park Road / Ironmasters Way	×	×	✓
J-02	Newport Interchange	×	×	✓
J-03	Hartington Interchange	✓	×	×
J-04	Metz Bridge Road / A178 North Road	×	×	×
J-05	Newport Road / Marsh Street	×	×	×
J-06	Lower Feversham Street / Cleveland Street	×	×	×
J-07	West Terrace / Cromwell Street	×	✓	×
J-08	A66 / Borough Road GSJ	✓	✓	✓
J-09	Shepherdson Way / Heath Road	×	×	×
J-10	A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield	✓	×	✓
J-11	A171 Cargo Fleet Lane / A1085 Longlands Road	✓	✓	✓
J-12	A171 Cargo Fleet Lane / Cranmore Road	✓	✓	✓
J-13	A171 Cargo Fleet Lane / Minor Access Road	×	×	×
J-14	A66 / A171 Cargo Fleet Lane Throughabout	✓	✓	✓
J-15	A171 Cargo Fleet Lane / College Road	✓	✓	✓
J-16	A171 Cargo Fleet Lane / South Bank Road	✓	✓	✓
J-17	B1380 Ladgate Lane / Ormesby Road	×	×	×
J-18	Ormesby Road / A1085 Longlands Road / Kings Road	✓	×	✓

As such, detailed junction statistics are presented below for each junction identified for assessment.

6.4.1 J-01: Riverside Park Road / Ironmasters Way

Individual arm statistics for the J-01 are presented in Table 45 to Table 47, overleaf.

Table 45: Junction Statistics_J-01 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Riverside Park Road (East)					
Flow	614.8	664.8	667.2	1,032.0	1,025.6
Total Delay	4.2	4.3	4.6	4.9	4.8
Total Mean Queue	0.2	0.2	0.2	0.3	0.3
Total Max Queue	5.2	5.4	5.5	6.8	6.7
Speed	43.8	42.8	42.7	35.9	37.0
B: Ironmasters Way					
Flow	2,066.0	2,088.0	2,039.6	2,650.8	2,584.4
Total Delay	1.5	2.4	2.1	5.2	5.0
Total Mean Queue	0.0	0.1	0.1	0.4	0.4
Total Max Queue	1.3	3.8	3.2	8.8	9.1
Speed	43.4	42.3	42.7	38.0	37.1
C: Riverside Park Road (West)					
Flow	1,167.6	1,361.6	1,367.2	1,938.8	1,970.4
Total Delay	1.1	0.8	0.8	1.0	1.1
Total Mean Queue	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.6	0.7	1.3	1.3
Speed	47.0	49.2	49.1	48.3	48.1

The results of the AM peak hour (08:00 - 09:00) show that across both future assessment year scenarios, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 46: Junction Statistics_J-01 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Riverside Park Road (East)					
Flow	556.0	620.8	635.2	786.8	884.4
Total Delay	0.4	0.5	0.5	1.1	1.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.1	0.2	0.7	0.8
Speed	47.8	47.1	46.8	41.0	40.9
B: Ironmasters Way					
Flow	774.4	868.0	896.8	1,483.6	1,368.8
Total Delay	0.6	0.8	0.8	1.7	1.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.4	0.3	1.3	1.5
Speed	49.0	48.2	47.9	44.2	43.6
C: Riverside Park Road (West)					
Flow	1,421.6	1,430.8	1,490.8	2,177.2	2,218.4
Total Delay	0.4	0.4	0.4	0.5	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.2	0.2	0.5	0.3
Speed	52.0	52.2	51.8	51.3	51.9

The results of the inter peak hour (12:30 - 13:30) show that across both future assessment year scenarios, the proposed development is not predicted to materially impact the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 47: Junction Statistics_J-01 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Riverside Park Road (East)					
Flow	854.8	850.8	890.8	971.6	926.8
Total Delay	4.6	5.0	5.0	26.4	39.7
Total Mean Queue	0.3	0.3	0.3	2.1	3.1
Total Max Queue	6.0	6.0	6.3	10.7	11.1
Speed	38.3	36.9	37.6	28.0	29.2
B: Ironmasters Way					
Flow	634.4	645.6	655.2	958.4	990.8
Total Delay	0.6	0.9	0.8	3.9	3.9
Total Mean Queue	0.0	0.0	0.0	0.2	0.2
Total Max Queue	0.1	0.3	0.1	1.5	1.1
Speed	49.5	47.5	48.9	44.8	45.1
C: Riverside Park Road (West)					
Flow	3,014.8	3,271.2	3,220.4	4,051.2	4,002.0
Total Delay	0.5	0.5	0.5	6.6	8.8
Total Mean Queue	0.0	0.0	0.0	1.3	1.7
Total Max Queue	0.7	0.5	0.5	6.8	7.4
Speed	51.1	51.1	51.3	48.1	47.3

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on one arm of the junction. That is, the results show that, with the development in place, an increase in delay of 13.3s per vehicle is predicted to occur on the Riverside Park Road (East) arm of the junction. A corresponding increase in mean and maximum queueing of less than one vehicle is predicted.

Analysis of Impacts

Through analysis of the model, it is noted that this increase generally occurs due to congestion on Ironmasters Way on approach to the Newport Interchange. It is therefore considered that the capacity of this junction is directly affected by the link capacity on Ironmasters Way and, therefore, any impacts should not be considered in isolation.

In general, it is considered that the impacts associated with the proposed development at J-01 are unlikely to materially affect the operation of the junction across both future assessment year scenarios. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place.

6.4.2 J-02: Newport Interchange

Individual arm statistics for the J-02 are presented in Table 48 to Table 50, below and overleaf.

Table 48: Junction Statistics_J-02 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A66 Southbound Off-Slip					
Flow	1,449.6	1,613.6	1,638.0	1,601.6	1,725.6
Total Delay	16.2	23.7	28.9	56.4	61.2
Total Mean Queue	0.7	1.2	1.5	3.0	3.5
Total Max Queue	3.4	4.8	5.5	8.1	8.6
Speed	43.2	37.6	35.3	29.1	27.1
B: Newport Road (East)					
Flow	2,070.0	2,267.2	2,272.0	2,856.0	2,864.4
Total Delay	19.9	20.4	19.6	36.5	38.6
Total Mean Queue	1.3	1.5	1.4	4.0	4.2
Total Max Queue	11.7	13.3	12.2	16.9	18.2
Speed	48.8	48.5	48.9	43.1	42.7
C: A1032 Acklam Road					
Flow	3,670.0	4,138.8	4,127.2	4,147.6	4,150.0
Total Delay	21.7	22.5	23.1	27.1	26.0
Total Mean Queue	1.7	1.9	2.0	2.4	2.3
Total Max Queue	6.2	6.7	6.8	7.1	7.2

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Speed	20.7	19.7	19.3	17.9	18.2
D: A66 Northbound Off-Slip					
Flow	3,945.6	4,032.0	4,012.4	4,100.8	4,203.6
Total Delay	54.5	81.1	80.5	84.2	150.4
Total Mean Queue	6.4	9.8	9.6	10.3	18.9
Total Max Queue	17.4	23.5	22.4	24.8	36.9
Speed	23.7	18.5	19.9	17.9	11.5
E: B6541 Newport Road (West)					
Flow	1,902.4	2,052.8	2,014.8	2,103.2	2,007.2
Total Delay	1.4	3.8	3.1	5.4	5.5
Total Mean Queue	0.1	0.2	0.2	0.3	0.3
Total Max Queue	1.4	3.1	2.5	3.6	3.4
Speed	43.8	38.0	38.4	33.0	33.5
F: A1032 Newport Bridge Approach					
Flow	4,013.6	4,127.6	4,190.8	4,200.8	4,211.6
Total Delay	58.7	150.5	158.0	154.8	241.3
Total Mean Queue	4.3	16.4	17.8	17.6	30.3
Total Max Queue	15.9	36.6	38.5	39.9	59.1
Speed	41.3	15.0	12.3	12.6	7.3
G: Ironmasters Way					
Flow	854.4	992.0	1,004.8	1,455.6	1,513.2
Total Delay	35.2	35.4	35.8	36.1	34.5
Total Mean Queue	1.0	1.2	1.2	1.7	1.7
Total Max Queue	4.1	4.9	5.3	6.5	6.4
Speed	17.2	17.2	17.0	16.8	17.5

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 66.2s per vehicle is predicted to occur on the A66 Northbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queuing of 8.6 and 12.1 vehicles, respectively.
- With the development in place, an increase in delay of 86.5s per vehicle is predicted to occur on the A1032 Newport Bridge Approach arm of the junction, with a corresponding reported increase in mean and maximum queuing of 12.7 and 19.2 vehicles, respectively.

Table 49: Junction Statistics_J-02 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A66 Southbound Off-Slip					
Flow	1,358.0	1,623.2	1,591.2	1,676.0	1,778.0
Total Delay	7.1	10.3	10.1	12.6	14.4
Total Mean Queue	0.2	0.4	0.4	0.5	0.7
Total Max Queue	2.3	3.5	3.1	3.5	4.4
Speed	55.5	50.8	51.1	47.4	45.5
B: Newport Road (East)					
Flow	2,865.6	2,846.4	2,828.4	2,964.0	2,900.8
Total Delay	20.3	16.3	16.6	16.7	16.0
Total Mean Queue	1.7	1.2	1.2	1.3	1.1
Total Max Queue	15.1	10.7	10.2	10.9	9.8
Speed	48.0	49.7	49.6	49.3	49.6
C: A1032 Acklam Road					
Flow	2,224.4	2,237.6	2,192.0	2,386.0	2,450.8
Total Delay	17.6	17.6	17.2	17.4	17.9
Total Mean Queue	0.8	0.8	0.8	0.9	0.9
Total Max Queue	3.8	3.8	3.6	3.8	3.9
Speed	24.0	24.1	24.1	24.0	23.4
D: A66 Northbound Off-Slip					

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Flow	2,469.6	2,459.6	2,484.4	3,088.4	2,828.0
Total Delay	40.3	39.9	41.0	43.4	41.2
Total Mean Queue	3.0	3.0	3.1	4.0	3.5
Total Max Queue	9.9	10.0	10.2	12.9	11.6
Speed	33.6	34.1	33.1	30.5	32.2
E: B6541 Newport Road (West)					
Flow	1,015.6	1,088.0	1,087.6	1,116.8	1,102.4
Total Delay	0.4	0.4	0.5	0.4	0.5
Total Mean Queue	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.1	0.2	0.2	0.2
Speed	49.8	49.1	48.9	48.5	47.8
F: A1032 Newport Bridge Approach					
Flow	2,328.4	2,646.4	2,653.6	2,731.2	2,836.4
Total Delay	60.8	63.5	62.0	59.9	65.3
Total Mean Queue	2.4	3.0	2.8	2.8	3.3
Total Max Queue	8.4	10.7	10.5	9.8	12.7
Speed	49.5	45.7	46.2	48.5	43.6
G: Ironmasters Way					
Flow	1,024.4	1,032.0	1,070.0	1,543.2	1,622.4
Total Delay	36.2	36.4	35.4	36.5	36.2
Total Mean Queue	1.2	1.3	1.2	1.9	1.9
Total Max Queue	4.7	5.2	5.1	7.4	6.9
Speed	17.0	16.4	16.8	16.3	16.6

The results of the inter peak hour (12:30 - 13:30) show that across both future assessment year scenarios, the proposed development is not predicted to materially impact the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 50: Junction Statistics_J-02 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A66 Southbound Off-Slip					
Flow	1,753.6	1,833.6	1,868.0	1,807.2	1,928.4
Total Delay	18.3	35.3	45.0	97.7	206.8
Total Mean Queue	0.9	2.1	2.8	6.0	13.2
Total Max Queue	4.3	7.2	8.6	12.9	21.4
Speed	42.1	31.3	29.6	19.0	10.9
B: Newport Road (East)					
Flow	3,145.2	3,376.8	3,410.4	3,648.4	3,900.8
Total Delay	39.7	17.9	17.9	21.1	24.9
Total Mean Queue	4.3	1.7	1.7	2.4	3.1
Total Max Queue	21.5	14.5	13.4	16.1	19.0
Speed	31.9	47.9	47.8	46.2	44.5
C: A1032 Acklam Road					
Flow	2,892.8	2,911.6	2,866.4	3,046.0	3,084.0
Total Delay	18.4	18.8	18.9	18.9	20.6
Total Mean Queue	1.1	1.1	1.1	1.2	1.3
Total Max Queue	4.6	4.8	4.7	5.0	5.6
Speed	22.7	22.6	22.7	22.0	21.2
D: A66 Northbound Off-Slip					
Flow	3,002.8	2,971.6	2,998.4	3,182.4	3,251.2
Total Delay	42.3	42.7	42.7	43.5	43.1
Total Mean Queue	3.8	3.8	3.8	4.2	4.2
Total Max Queue	12.6	12.4	12.9	13.7	13.6
Speed	31.8	31.1	31.2	30.5	30.8
E: B6541 Newport Road (West)					
Flow	1,455.6	1,519.2	1,530.4	1,524.8	1,559.6
Total Delay	0.7	1.1	0.8	1.9	1.9
Total Mean Queue	0.0	0.0	0.0	0.1	0.1
Total Max Queue	0.5	0.9	0.6	1.2	1.5

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Speed	45.9	44.4	45.1	42.3	41.8
F: A1032 Newport Bridge Approach					
Flow	4,129.6	3,999.6	3,990.4	4,155.6	3,974.4
Total Delay	57.3	237.0	261.9	230.9	312.7
Total Mean Queue	4.5	28.2	31.6	28.2	38.4
Total Max Queue	16.1	53.3	58.3	53.6	67.6
Speed	38.7	8.4	6.9	8.4	5.5
G: Ironmasters Way					
Flow	2,976.8	3,084.8	3,092.4	3,392.4	3,271.6
Total Delay	45.6	60.9	57.3	143.2	159.0
Total Mean Queue	5.2	8.9	8.0	27.7	30.0
Total Max Queue	20.8	32.6	29.8	75.3	79.7
Speed	20.9	21.8	21.2	22.7	21.3

The results of the PM peak hour (16:30 - 17:30) show that, in both future assessment year scenarios, the proposed development is not predicted to materially impact on most arms of the junction with only small variations in the level of queueing and delay.

However, the results show that the proposed development is likely to give rise to more significant impacts on some arms of across the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in delay of 9.7s is predicted to occur on the A66 Southbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queueing of 0.7 and 1.4 vehicles respectively. These impacts are exacerbated with the addition of additional development-generated traffic to the network in 2030, whereby an increase in delay of 109.1s per vehicle is predicted and a corresponding increase in mean and maximum queueing of 7.2 and 8.5 vehicles is reported.
- In the 2025 future assessment year scenario with the development in place, an increase in delay of 24.9s is predicted to occur on the A1032 Newport Bridge Approach arm of the junction, with a corresponding reported increase in mean and maximum queueing of 3.4 and 5.0 vehicles respectively. Consistent with the above, these impacts are exacerbated with the addition of more development-generated traffic to the network in 2030, whereby an increase in delay of 81.8s per vehicle is

predicted and a corresponding increase in mean and maximum queueing of 10.2 and 14.0 vehicles is reported.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of the future operation of the Newport Interchange junction. As such, the vast majority of delay and queueing occurs as a result of an increase in traffic using the junction and the effect of blocking which frequently occurs on the circulatory of the roundabout. With the addition of development-generated traffic these impacts are exacerbated. It should be noted, however, that since some arms of the junction are already predicted to operate with an increased level of queueing and delay as a result of the overall capacity of the junction, any reported impacts as a result of the proposed development are disproportionate to the level of additional flow.

It is considered that the impacts associated with the proposed development at J-02 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.3 J-03: Hartington Interchange

Individual arm statistics for the J-03 are presented in Table 51 to Table 53, overleaf.

Table 51: Junction Statistics_J-03 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A178 North Road					
Flow	1,197.2	1,398.8	1,368.0	1,494.0	1,423.2
Total Delay	29.5	29.0	29.0	29.2	29.8
Total Mean Queue	1.1	1.3	1.3	1.4	1.4
Total Max Queue	4.2	4.8	4.6	5.0	5.0
Speed	19.7	19.9	20.4	20.5	20.5
B: A66 Westbound Off-Slip					
Flow	1,613.6	1,664.4	1,642.8	1,940.0	1,920.8
Total Delay	8.7	9.1	15.1	30.2	49.1
Total Mean Queue	0.4	0.4	0.8	1.9	3.3
Total Max Queue	2.8	3.2	3.7	7.2	8.4
Speed	44.2	41.5	39.5	31.7	31.4
C: B1272 Hartington Road					
Flow	1,609.2	1,806.4	1,840.0	1,932.4	2,014.4
Total Delay	2.5	3.1	7.2	19.8	14.1
Total Mean Queue	0.1	0.1	0.3	0.9	0.7
Total Max Queue	1.2	1.4	2.1	4.4	3.5
Speed	52.4	52.3	50.8	47.6	48.6
D: A66 Eastbound Off-Slip					
Flow	4,911.2	5,095.6	5,004.0	5,220.8	5,159.2
Total Delay	52.0	53.3	55.1	56.5	61.1
Total Mean Queue	7.5	7.8	8.2	8.5	9.4
Total Max Queue	20.2	20.9	20.9	21.9	23.2
Speed	26.2	25.7	25.9	24.7	23.9

The results of the AM peak hour (08:00 - 09:00) show that, in both future assessment year scenarios, the proposed development is not predicted to materially impact on most arms of the junction with only small variations in the level of queueing and delay. However, across both future assessment year scenarios, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in delay of 6.0s per vehicle is predicted to occur on the A66 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queueing of less than 1 vehicle.
- In the 2030 future assessment year scenario with the development in place, an increase in delay of 18.9s per vehicle is predicted to occur on the A66 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.3 and 1.2 vehicles respectively.

Table 52: Junction Statistics_J-03 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A178 North Road					
Flow	2,208.8	2,847.6	2,761.6	2,974.4	3,051.6
Total Delay	18.3	18.2	17.9	16.5	18.1
Total Mean Queue	1.2	1.6	1.5	1.5	1.7
Total Max Queue	5.7	7.0	6.6	6.9	7.2
Speed	24.2	26.0	25.7	26.5	26.8
B: A66 Westbound Off-Slip					
Flow	1,232.0	1,503.6	1,517.6	1,815.2	1,765.6
Total Delay	6.1	8.3	10.1	7.9	9.8
Total Mean Queue	0.2	0.3	0.4	0.4	0.5
Total Max Queue	1.9	2.6	2.8	2.9	3.2
Speed	44.4	37.7	37.2	38.2	34.6
C: B1272 Hartington Road					
Flow	3,686.8	3,734.8	3,740.0	3,583.2	3,839.2
Total Delay	11.0	19.1	16.9	14.0	22.5
Total Mean Queue	0.9	1.6	1.4	1.1	2.0
Total Max Queue	4.5	6.6	6.8	5.5	7.1
Speed	48.6	44.2	45.1	46.9	43.0
D: A66 Eastbound Off-Slip					
Flow	2,659.2	2,998.8	2,872.0	2,696.4	3,092.4
Total Delay	26.7	26.1	26.2	25.7	26.0
Total Mean Queue	2.1	2.3	2.2	2.0	2.3
Total Max Queue	6.9	8.1	8.1	7.3	8.5
Speed	38.1	38.8	38.4	38.8	38.5

The results of the inter peak hour (12:30 - 13:30) show that across both future assessment year scenarios, the proposed development is not predicted to materially impact the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 53: Junction Statistics_J-03 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A178 North Road					
Flow	4,104.0	4,466.8	4,467.2	4,856.4	4,878.4
Total Delay	21.0	19.6	19.1	20.5	20.9
Total Mean Queue	2.5	2.7	2.6	3.1	3.2
Total Max Queue	9.3	9.6	9.6	9.9	9.9
Speed	21.4	31.1	31.4	32.3	32.1
B: A66 Westbound Off-Slip					
Flow	759.6	960.8	947.2	1,203.6	1,301.6
Total Delay	10.1	11.0	10.0	13.2	13.2
Total Mean Queue	0.2	0.3	0.3	0.4	0.5
Total Max Queue	1.9	2.4	2.0	2.9	3.1
Speed	38.9	35.0	36.4	33.1	31.4
C: B1272 Hartington Road					
Flow	4,290.0	4,541.6	4,459.6	4,837.2	4,773.6
Total Delay	6.1	6.5	6.9	8.8	8.0
Total Mean Queue	0.4	0.4	0.5	0.7	0.6
Total Max Queue	4.1	4.2	4.8	5.8	5.6
Speed	50.2	49.8	49.9	48.0	48.7
D: A66 Eastbound Off-Slip					
Flow	1,623.6	1,824.8	1,834.4	1,875.6	1,914.4
Total Delay	35.1	36.0	36.1	36.1	36.1
Total Mean Queue	1.7	2.0	2.0	2.1	2.1
Total Max Queue	5.9	6.7	6.8	6.9	7.4
Speed	33.8	33.2	33.1	33.7	33.2

The results of the PM peak hour (16:30 - 17:30) show that that across both future assessment year scenarios, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queuing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of congestion on the circulatory of the roundabout and the future combined operation of the Hartington Interchange and Metz Bridge Road / A178 North Road traffic signals. As such, traffic frequently blocks back through the junction which, in turn, results in queues forming on the westbound off-slip.

In general, it is considered that the impacts associated with the proposed development at J-03 are unlikely to materially affect the operation of the junction across both future assessment year scenarios. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place.

6.4.4 J-07: West Terrace / Cromwell Street

Individual arm statistics for the J-07 are presented in Table 54 to Table 56, overleaf.

Table 54: Junction Statistics_J-07 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: West Terrace (North)					
Flow	1,426.4	1,382.8	1,405.6	1,308.0	1,492.0
Total Delay	32.9	34.5	34.6	33.3	39.1
Total Mean Queue	2.9	3.1	3.0	2.8	3.7
Total Max Queue	14.8	14.8	15.2	14.4	15.9
Speed	22.7	22.2	22.4	21.9	22.9
B: Cromwell Street					
Flow	910.4	963.6	961.2	944.0	979.2
Total Delay	24.6	24.2	23.9	24.6	25.5
Total Mean Queue	1.4	1.4	1.4	1.4	1.5
Total Max Queue	7.7	7.9	7.7	8.0	8.3
Speed	17.6	18.0	17.9	17.6	17.0
C: West Terrace (South)					
Flow	339.2	388.8	400.8	451.2	492.0
Total Delay	18.0	18.2	17.7	18.4	17.7
Total Mean Queue	0.4	0.5	0.5	0.5	0.6
Total Max Queue	3.1	3.4	3.3	3.6	3.7
Speed	13.1	12.9	12.8	12.5	13.4

The results of the AM peak hour (08:00 - 09:00) show that across both future assessment year scenarios, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 55: Junction Statistics_J-07 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: West Terrace (North)					
Flow	1,666.4	1,687.6	1,723.2	1,744.0	1,788.8
Total Delay	54.8	71.3	84.8	84.7	97.9
Total Mean Queue	5.7	7.9	9.9	9.8	11.6
Total Max Queue	17.8	18.7	19.2	19.1	19.8
Speed	22.6	22.7	22.9	22.9	23.2
B: Cromwell Street					
Flow	912.4	1,025.6	1,019.2	1,054.4	1,124.4
Total Delay	23.7	25.3	25.4	26.0	25.7
Total Mean Queue	1.3	1.6	1.6	1.7	1.8
Total Max Queue	7.7	8.9	8.5	8.9	9.6
Speed	18.6	17.6	17.7	17.7	17.6
C: West Terrace (South)					
Flow	307.2	277.6	288.4	289.6	277.6
Total Delay	18.4	19.2	19.7	23.3	20.8
Total Mean Queue	0.4	0.4	0.4	0.5	0.4
Total Max Queue	2.8	2.8	2.9	2.9	3.1
Speed	13.3	13.0	13.6	11.9	13.4

The results of the inter peak hour (12:30 - 13:30) show that, in both future assessment year scenarios, the proposed development is not predicted to materially impact on most arms of the junction with only small variations in the level of queueing and delay.

However, across both future assessment year scenarios, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in delay of 13.5s per vehicle is predicted to occur on the West Terrace (North) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 2.0 and 0.5 vehicles respectively.

- In the 2030 future assessment year scenario with the development in place, an increase in delay of 13.1s per vehicle is predicted to occur on the West Terrace (North) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.8 and 0.7 vehicles respectively.

Table 56: Junction Statistics_J-07 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: West Terrace (North)					
Flow	2,411.6	2,488.8	2,594.4	2,581.2	2,678.4
Total Delay	49.5	29.0	29.2	27.9	29.8
Total Mean Queue	7.5	4.4	4.6	4.3	4.8
Total Max Queue	19.2	18.2	18.6	18.1	18.5
Speed	29.1	31.0	31.5	31.3	31.8
B: Cromwell Street					
Flow	847.2	770.0	770.8	782.0	778.0
Total Delay	28.7	35.8	36.2	35.6	36.2
Total Mean Queue	1.5	1.8	1.8	1.8	1.8
Total Max Queue	8.0	8.4	8.4	8.2	8.7
Speed	15.9	14.6	14.7	13.9	14.1
C: West Terrace (South)					
Flow	487.6	650.4	646.8	653.2	659.6
Total Delay	16.5	15.4	14.9	16.0	15.9
Total Mean Queue	0.5	0.7	0.6	0.7	0.7
Total Max Queue	3.9	4.4	4.5	4.3	4.5
Speed	14.9	17.1	17.9	17.1	16.8

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of the existing cycle time and green splits at the junction. As such, it is considered that insufficient green time is allocated to the northern arm of the junction which, in turn, can result in disproportionate queueing and delay.

It is considered that the impacts associated with the proposed development at J-07 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.5 J-08: A66 / Borough Road GSJ

Individual arm statistics for the J-08 are presented in Table 57 to Table 59, overleaf.

Table 57: Junction Statistics_J-08 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Borough Road (North)					
Flow	600.4	697.6	886.0	720.0	1,188.4
Total Delay	36.4	36.2	35.2	36.0	36.4
Total Mean Queue	0.5	0.6	0.7	0.6	1.0
Total Max Queue	2.7	3.0	3.6	3.2	4.3
Speed	40.3	40.3	37.9	39.5	35.2
B: A66 Westbound Off-Slip					
Flow	1,501.2	1,948.4	2,124.4	2,042.4	2,372.8
Total Delay	15.3	21.6	26.6	23.7	65.3
Total Mean Queue	0.7	1.3	1.8	1.5	5.1
Total Max Queue	3.5	5.4	6.5	5.7	11.3
Speed	29.7	26.0	24.0	25.8	19.5
C: Borough Road (South)					
Flow	1,006.8	1,188.4	1,257.2	1,341.6	1,426.0
Total Delay	28.8	31.6	32.6	35.8	51.5
Total Mean Queue	0.9	1.2	1.3	1.6	2.5
Total Max Queue	4.1	5.1	5.2	5.9	7.1
Speed	14.9	14.5	13.7	12.1	9.7
D: A66 Eastbound Off-Slip					
Flow	1,546.0	1,824.4	1,962.8	1,835.2	2,237.2
Total Delay	34.6	34.6	35.4	34.8	35.8
Total Mean Queue	1.7	1.8	1.9	1.8	2.1
Total Max Queue	7.3	8.2	8.5	7.9	8.9
Speed	29.0	28.9	29.2	30.0	29.6

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 41.6s per vehicle is predicted to occur on the A66 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queueing of 3.6 and 1.2 vehicles respectively.
- With the development in place, an increase in delay of 15.7s per vehicle is predicted to occur on the Borough Road (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 0.9 and 1.2 vehicles respectively.

Table 58: Junction Statistics_J-08 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Borough Road (North)					
Flow	1,106.8	2,061.2	2,420.8	2,006.0	2,872.8
Total Delay	29.5	33.7	35.2	33.6	66.9
Total Mean Queue	0.7	1.5	1.8	1.5	4.5
Total Max Queue	3.7	5.6	6.1	5.7	9.9
Speed	36.2	28.7	25.8	28.9	15.5
B: A66 Westbound Off-Slip					
Flow	954.4	1,305.2	1,493.2	1,499.6	1,560.4
Total Delay	16.4	33.8	51.2	32.7	114.1
Total Mean Queue	0.5	1.4	2.6	1.6	6.7
Total Max Queue	2.6	5.0	7.2	5.3	12.7
Speed	27.3	22.4	19.5	22.1	13.3
C: Borough Road (South)					
Flow	915.6	1,203.6	1,298.4	1,232.0	1,285.6
Total Delay	31.0	34.6	38.4	39.3	68.5
Total Mean Queue	0.9	1.3	1.6	1.6	3.1
Total Max Queue	3.8	5.0	5.5	5.4	8.4
Speed	11.5	11.0	10.4	9.4	7.0
D: A66 Eastbound Off-Slip					
Flow	998.0	1,334.8	1,468.0	1,218.8	1,877.2
Total Delay	31.7	30.6	30.6	32.3	40.2
Total Mean Queue	1.0	1.3	1.3	1.1	2.5
Total Max Queue	5.2	6.0	6.4	5.5	7.9
Speed	32.7	31.4	30.8	32.2	27.8

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 33.3s per vehicle is predicted to occur on the Borough Road (North) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 3.1 and 4.3 vehicles respectively.
- With the development in place, an increase in delay of 81.5s per vehicle is predicted to occur on the A66 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queuing of 5.1 and 7.4 vehicles respectively.
- With the development in place, an increase in delay of 29.2s per vehicle is predicted to occur on the Borough Road (South) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 1.6 and 3.1 vehicles respectively.

Table 59: Junction Statistics_J-08 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Borough Road (North)					
Flow	1,796.4	2,530.8	2,770.8	2,692.0	3,054.0
Total Delay	37.5	38.6	39.2	40.0	41.1
Total Mean Queue	1.4	2.0	2.3	2.2	2.6
Total Max Queue	5.8	7.4	7.9	7.7	8.6
Speed	26.6	25.7	24.4	24.6	23.1
B: A66 Westbound Off-Slip					
Flow	1,026.0	1,387.6	1,515.6	1,397.6	1,633.2
Total Delay	16.0	29.1	30.7	27.6	46.4
Total Mean Queue	0.5	1.3	1.5	1.2	2.4
Total Max Queue	3.2	4.7	5.3	4.7	7.1
Speed	29.1	25.3	24.6	24.6	21.9
C: Borough Road (South)					
Flow	1,365.6	1,345.6	1,308.8	1,320.0	1,281.2
Total Delay	86.4	92.7	101.7	72.6	113.1
Total Mean Queue	4.1	4.4	4.7	3.2	5.2
Total Max Queue	9.6	10.2	10.4	8.3	10.8
Speed	4.2	4.0	3.5	6.1	2.7
D: A66 Eastbound Off-Slip					
Flow	1,108.8	1,596.8	1,688.8	1,572.4	1,748.0
Total Delay	41.3	37.3	35.9	36.5	35.2
Total Mean Queue	1.6	2.0	2.0	2.0	2.1
Total Max Queue	6.0	7.2	7.8	7.4	8.0
Speed	25.2	27.3	27.8	28.1	28.0

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 18.9s per vehicle is predicted to occur on the A66 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean and maximum queuing of 1.2 and 2.4 vehicles respectively.
- With the development in place, an increase in delay of 40.4s per vehicle is predicted to occur on the Borough Road (South) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 2.0 and 2.5 vehicles respectively.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of the existing green splits and future operation of the traffic signals at the junction. As such, due to an increase in traffic using the junction as a result of the proposed development, the green times allocated to some arms of the junction are likely to be insufficient. Moreover, it is also noted that on some occasions there is insufficient stacking space between the northern and southern arm of the junction (for right turners onto the A66 east) which, in turn, can result in queueing on other arms of the junction due to vehicles being unable to clear the junction during the allocated green time.

It is considered that the impacts associated with the proposed development at J-08 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.6 J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Individual arm statistics for the J-10 are presented in Table 60 to Table 62, overleaf.

Table 60: Junction Statistics_J-10 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane					
Flow	2,516.8	2,897.2	3,068.4	3,080.8	2,974.4
Total Delay	8.0	25.5	29.3	31.4	31.6
Total Mean Queue	0.9	3.9	4.7	5.0	5.1
Total Max Queue	9.3	13.6	13.6	13.5	13.5
Speed	35.7	28.3	27.3	26.5	27.9
B: B1380 Normanby Road					
Flow	2,527.6	2,240.0	2,195.6	2,113.2	2,040.4
Total Delay	10.6	25.3	27.2	28.2	30.2
Total Mean Queue	0.8	1.8	2.0	2.0	2.0
Total Max Queue	3.1	3.9	4.0	4.0	4.2
Speed	22.9	13.1	11.3	12.2	13.1
C: A171 Sunnyfield					
Flow	3,410.8	2,245.2	2,170.8	2,182.0	1,901.2
Total Delay	52.9	234.1	244.5	241.2	271.5
Total Mean Queue	9.8	30.3	30.9	30.5	32.5
Total Max Queue	29.3	45.2	45.5	45.2	45.4
Speed	22.5	8.6	8.2	8.8	10.5
D: B1380 High Street					
Flow	3,148.8	4,660.8	4,754.0	4,743.2	4,361.6
Total Delay	6.0	7.2	6.7	7.8	12.6
Total Mean Queue	0.5	0.9	0.8	1.0	1.6
Total Max Queue	4.3	6.1	5.7	6.0	6.4
Speed	32.2	30.2	30.3	29.6	28.6

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is, with the development in place, an increase in delay of 30.3 per vehicle is predicted to occur on the A171 Sunnyfield arm of the junction, with a corresponding reported increase in mean and maximum queuing of 2.0 and 0.2 vehicles respectively.

Table 61: Junction Statistics_J-10 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane					
Flow	2,213.2	2,305.6	2,455.6	2,421.2	2,595.2
Total Delay	3.9	6.2	8.8	7.2	19.5
Total Mean Queue	0.3	0.5	0.9	0.7	2.5
Total Max Queue	6.8	8.3	9.6	8.4	12.2
Speed	38.0	35.3	33.6	33.7	29.6
B: B1380 Normanby Road					
Flow	1,950.4	1,997.6	1,936.8	1,963.6	1,978.0
Total Delay	3.5	6.1	8.9	7.6	12.8
Total Mean Queue	0.2	0.3	0.5	0.4	0.8
Total Max Queue	2.0	2.3	2.6	2.3	2.8
Speed	35.3	30.0	27.0	28.6	24.4
C: A171 Sunnyfield					
Flow	2,226.0	2,800.0	2,960.0	3,069.6	3,406.0
Total Delay	3.9	14.8	22.8	16.6	53.5
Total Mean Queue	0.2	1.1	2.6	1.6	9.1
Total Max Queue	3.9	11.3	16.7	14.8	30.7
Speed	37.0	20.7	20.7	20.8	19.4
D: B1380 High Street					
Flow	3,316.0	3,859.2	4,106.8	3,923.6	3,908.0
Total Delay	2.4	4.5	5.7	5.1	13.3
Total Mean Queue	0.1	0.4	0.6	0.5	1.5
Total Max Queue	2.8	4.2	5.1	5.1	6.3
Speed	38.8	33.4	31.3	32.3	25.4

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 12.3s per vehicle is predicted to occur on the A171 Cargo Fleet Lane arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.8 and 3.8 vehicles respectively.
- With the development in place, an increase in delay of 36.9s per vehicle is predicted to occur on the Borough Road (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 7.5 and 15.8 vehicles respectively.

Table 62: Junction Statistics_J-10 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane					
Flow	2,609.6	3,104.4	3,048.8	3,070.4	2,816.4
Total Delay	23.6	40.4	44.2	45.7	51.1
Total Mean Queue	3.1	6.8	7.4	7.6	8.0
Total Max Queue	11.7	14.1	14.2	14.3	14.2
Speed	25.1	21.0	20.9	21.0	21.6
B: B1380 Normanby Road					
Flow	1,896.0	1,722.4	1,725.2	1,709.2	1,850.8
Total Delay	17.7	33.4	34.1	36.0	31.9
Total Mean Queue	1.3	1.9	2.0	2.1	2.0
Total Max Queue	3.3	4.0	4.1	4.1	3.9
Speed	19.3	11.2	10.7	10.0	10.8
C: A171 Sunnyfield					
Flow	2,216.4	3,064.8	3,107.2	3,217.2	3,564.0
Total Delay	6.6	56.2	64.7	69.7	75.3
Total Mean Queue	3.4	8.2	10.3	11.9	13.8
Total Max Queue	10.7	30.8	32.7	36.5	40.6
Speed	35.4	23.0	23.0	21.6	22.2
D: B1380 High Street					
Flow	4,297.6	5,233.2	5,501.2	5,485.6	5,272.4
Total Delay	4.2	6.7	7.0	7.9	10.5
Total Mean Queue	0.9	0.9	1.0	1.2	1.5
Total Max Queue	5.1	5.9	6.2	6.5	6.7
Speed	33.9	30.3	29.9	28.8	25.4

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 and 2030 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the vast majority of the junction with only small variations in the level of queueing and delay. Notwithstanding the above, the results show that the proposed development is predicted to give rise isolated impacts on the A171 Sunnyfield arm of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in delay of 8.5s per vehicle is predicted to occur on the A171 Sunnyfield arm of the junction, with a corresponding reported increase in mean and maximum queuing of 2.1 and 1.9 vehicles respectively.
- In the 2030 future assessment year scenario with the development in place, an increase in delay of 5.6s per vehicle is predicted to occur on the A171 Sunnyfield arm of the junction, with a corresponding reported increase in mean and maximum queuing of 1.9 and 4.2 vehicles respectively.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of the approach capacity on all but the western arm of the junction, combined with the volume of traffic using the roundabout in the 2030 future assessment year scenario. As a result of the current layout of the junction (priority controlled), it is noted that the imbalance of flows can result in disproportionate queuing and delay on some arms of the junction which is exacerbated as a result of an increase in development-generated traffic. Notwithstanding the above, it is considered that the junction is already expected to operate above or close to capacity in the corresponding do minimum scenario.

It is considered that the impacts associated with the proposed development at J-10 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.7 J-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Individual arm statistics for the J-11 are presented in Table 63 to Table 65, overleaf.

Table 63: Junction Statistics_J-11 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	1,631.2	1,710.8	1,871.6	1,829.2	2,067.2
Total Delay	64.2	40.4	36.8	35.7	30.7
Total Mean Queue	5.0	2.6	2.4	2.3	2.3
Total Max Queue	13.9	10.8	11.8	11.7	14.6
Speed	18.8	20.3	19.5	20.4	22.9
B: A1085 Longlands Road (East)					
Flow	2,251.6	2,602.0	2,840.0	2,850.4	3,366.0
Total Delay	38.1	36.1	39.0	36.2	47.8
Total Mean Queue	1.8	1.9	2.3	2.1	3.4
Total Max Queue	7.6	8.6	10.4	8.7	14.5
Speed	20.4	20.0	19.0	20.6	16.7
C: A171 Cargo Fleet Lane (South)					
Flow	3,282.4	3,198.4	3,161.2	3,329.6	2,464.8
Total Delay	59.3	40.1	47.3	42.0	106.3
Total Mean Queue	9.2	5.1	6.3	5.7	12.8
Total Max Queue	21.9	20.7	21.4	21.3	22.7
Speed	18.7	19.1	18.1	18.9	14.7
D: A1085 Longlands Road (West)					
Flow	1,965.6	2,572.8	2,586.8	2,723.6	2,329.6
Total Delay	56.2	88.6	109.9	113.1	402.4
Total Mean Queue	2.4	4.9	6.2	6.6	43.0
Total Max Queue	7.6	12.1	13.2	13.8	61.2
Speed	32.7	25.8	22.9	22.2	11.3

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the vast majority of the junction with only small variations in the level of queueing and delay. Notwithstanding the above, the results show that the proposed development is likely to give rise to an isolated impact on the A1085 Longlands Road (West) arm of the junction. That is, with the development in place, an increase in delay of

21.4s per vehicle is predicted to occur, with a corresponding reported increase in mean and maximum queuing of 1.3 and 1.2 vehicles respectively.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts across the junction. That is:

- With the development in place, an increase in delay of 11.5s per vehicle is predicted to occur on the A1085 Longlands Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.3 and 5.8 vehicles respectively.
- With the development in place, an increase in delay of 64.3s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 7.1 and 1.4 vehicles respectively.
- With the development in place, an increase in delay of 289.4s per vehicle is predicted to occur on the A1085 Longlands Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 36.3 and 47.4 vehicles respectively.

Table 64: Junction Statistics_J-11 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,448.4	2,275.6	2,461.2	2,389.2	2,753.6
Total Delay	31.6	43.1	41.6	40.7	63.3
Total Mean Queue	2.7	3.8	3.8	3.6	7.9
Total Max Queue	14.7	15.4	16.4	15.2	20.0
Speed	21.4	20.2	21.0	20.6	23.6
B: A1085 Longlands Road (East)					
Flow	2,224.8	2,260.8	2,416.4	2,333.2	2,435.6
Total Delay	45.4	45.2	46.0	48.5	380.3
Total Mean Queue	2.1	2.2	2.3	2.4	49.3
Total Max Queue	7.9	7.7	8.6	8.4	88.9
Speed	14.4	14.3	13.9	13.5	4.0
C: A171 Cargo Fleet Lane (South)					
Flow	2,806.0	3,417.2	3,610.4	3,508.8	2,976.0
Total Delay	25.8	27.9	28.8	32.0	75.6
Total Mean Queue	2.5	3.7	4.2	4.5	10.8
Total Max Queue	16.5	20.1	20.9	20.5	22.4
Speed	23.2	26.4	26.8	25.7	22.3
D: A1085 Longlands Road (West)					
Flow	2,547.6	2,244.8	2,246.0	2,530.8	2,536.0
Total Delay	39.2	39.9	39.6	39.5	124.4
Total Mean Queue	2.1	1.9	1.9	2.1	8.1
Total Max Queue	7.6	6.9	7.2	7.5	17.9
Speed	38.5	38.4	38.5	38.6	27.3

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 22.5s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (North) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 4.3 and 4.8 vehicles respectively.
- With the development in place, an increase in delay of 331.8s per vehicle is predicted to occur on the A1085 Longlands Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 46.9 and 80.5 vehicles respectively.
- With the development in place, an increase in delay of 43.5s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 6.3 and 1.9 vehicles respectively.
- With the development in place, an increase in delay of 84.9s per vehicle is predicted to occur on the A1085 Longlands Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 6.0 and 10.4 vehicles respectively.

Table 65: Junction Statistics_J-11 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,518.4	2,837.2	2,800.8	3,149.6	3,122.4
Total Delay	81.6	90.5	93.0	63.3	75.1
Total Mean Queue	11.7	11.4	11.6	8.7	10.5
Total Max Queue	19.9	20.5	20.4	20.1	19.7
Speed	15.9	15.1	15.3	18.3	18.7
B: A1085 Longlands Road (East)					
Flow	2,017.2	2,421.2	2,547.6	2,395.2	2,648.0
Total Delay	47.8	48.3	53.7	76.5	152.7
Total Mean Queue	29.6	2.5	2.9	4.1	12.3
Total Max Queue	45.0	9.1	10.1	12.4	27.8
Speed	14.9	13.8	13.4	9.8	5.9
C: A171 Cargo Fleet Lane (South)					
Flow	2,128.0	2,864.0	2,934.0	2,972.4	2,863.2
Total Delay	22.6	28.8	40.5	28.4	50.9
Total Mean Queue	1.7	3.4	5.3	3.7	6.8
Total Max Queue	13.4	18.9	20.3	19.5	21.2
Speed	27.3	29.6	29.2	32.4	29.4
D: A1085 Longlands Road (West)					
Flow	2,160.0	2,947.6	3,013.2	3,240.8	3,234.0
Total Delay	44.7	43.5	60.3	83.1	140.4
Total Mean Queue	8.1	2.7	3.8	5.7	9.8
Total Max Queue	16.3	9.1	10.6	14.7	19.7
Speed	36.5	36.9	33.8	28.5	21.2

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is predicted to give rise to noticeable impacts some arms of the junction. That is:

- With the development in place, an increase in delay of 11.8s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a

corresponding reported increase in mean and maximum queuing of 2.0 and 1.4 vehicles respectively.

- With the development in place, an increase in delay of 16.8s per vehicle is predicted to occur on the A1085 Longlands Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queuing of 1.1 and 1.5 vehicles respectively.

In the 2030 future assessment year scenario, the impact of the proposed development is exacerbated. That is:

- With the development in place, an increase in delay of 76.2s per vehicle is predicted to occur on the A1085 Longlands Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 8.2 and 15.4 vehicles respectively.
- With the development in place, an increase in delay of 22.4s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 3.2 and 1.7 vehicles respectively.
- With the development in place, an increase in delay of 57.3s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 4.1 and 5.1 vehicles respectively.

Analysis

Through analysis of the model, it is noted that a large proportion of the impact occurs as a result of the capacity of the existing junction in the 2030 future assessment year scenario and the link capacity of upstream sections. For example, the queueing on the A171 Cargo Fleet Lane (South) arm of the junction occurs as a result of upstream congestion on A171 Cargo Fleet Lane on approach to the A171 Cargo Fleet Lane / South Bank Road junction.

On some occasions, northbound traffic is unable to clear the junction during the allocated green time due to the blocking back of traffic through the junction. Moreover, the impacts associated with the A1085 Longlands Road (West) arm of the junction generally occur for the same reason. That is, vehicles intending to turn left onto the northern arm of the junction are sometimes unable to make their turn due to upstream congestion on A171 Cargo Fleet Lane. This, in turn, results in a considerable increase in delay and queuing.

It is considered that the impacts associated with the proposed development at J-11 are unlikely to materially affect the operation of the junction in the 2025 future assessment

year scenario. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.8 J-12: A171 Cargo Fleet Lane / Cranmore Road

Individual arm statistics for the J-12 are presented in Table 66 to Table 68, below and overleaf.

Table 66: Junction Statistics_J-12 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,158.0	2,481.2	2,550.4	2,647.2	2,675.2
Total Delay	10.7	11.9	11.6	11.4	11.0
Total Mean Queue	0.7	1.0	0.9	1.0	1.0
Total Max Queue	10.7	13.2	12.5	12.4	12.8
Speed	30.5	29.3	29.4	30.3	33.2
B: Cranmore Road					
Flow	568.0	654.0	672.0	765.6	696.4
Total Delay	36.2	37.5	43.5	43.9	178.2
Total Mean Queue	1.4	1.6	1.9	2.2	8.5
Total Max Queue	7.8	8.8	9.0	9.9	14.9
Speed	10.2	10.6	9.5	9.0	4.0
C: A171 Cargo Fleet Lane (South)					
Flow	2,846.0	2,619.2	2,578.0	2,600.0	1,850.0
Total Delay	35.9	23.0	30.3	20.6	354.3
Total Mean Queue	5.7	3.3	4.4	2.9	43.8
Total Max Queue	25.4	18.2	20.5	15.5	67.7
Speed	25.6	26.8	26.7	26.8	23.5

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts across the junction. That is:

- With the development in place, an increase in delay of 134.3s per vehicle is predicted to occur on the Cranmore Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 6.3 and 5.1 vehicles respectively.
- With the development in place, an increase in delay of 333.7s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 41.0 and 52.2 vehicles respectively.

Table 67: Junction Statistics_J-12 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,791.6	2,850.8	2,974.4	2,944.4	3,083.2
Total Delay	11.0	13.2	13.1	12.6	13.0
Total Mean Queue	1.0	1.2	1.3	1.2	1.5
Total Max Queue	14.0	14.3	15.5	14.9	17.9
Speed	28.9	28.8	29.1	29.8	33.1
B: Cranmore Road					
Flow	433.2	726.0	756.4	679.2	698.4
Total Delay	29.4	42.2	50.0	44.8	125.9
Total Mean Queue	0.8	2.0	2.5	2.0	5.9
Total Max Queue	5.8	9.4	10.5	9.4	13.7
Speed	12.0	9.2	8.0	8.8	4.1
C: A171 Cargo Fleet Lane (South)					
Flow	2,460.0	2,810.8	2,945.2	2,938.4	2,397.2
Total Delay	12.5	18.4	19.2	30.8	254.9
Total Mean Queue	1.4	2.6	2.9	4.8	39.9
Total Max Queue	13.5	17.6	19.1	22.6	69.4
Speed	28.4	29.4	30.4	29.5	26.9

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place. However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 81.0s per vehicle is predicted to occur on the Cranmore Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 3.9 and 4.3 vehicles respectively.
- With the development in place, an increase in delay of 224.1s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a

corresponding reported increase in mean and maximum queueing of 35.1 and 46.8 vehicles respectively.

Table 68: Junction Statistics_J-12 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	3,118.4	3,944.0	3,927.2	4,325.2	3,998.4
Total Delay	11.4	12.9	12.5	14.9	23.3
Total Mean Queue	5.4	1.8	1.8	2.6	4.3
Total Max Queue	17.2	17.8	18.7	21.4	23.1
Speed	31.4	33.8	34.6	34.3	33.7
B: Cranmore Road					
Flow	362.8	362.0	368.8	396.4	520.8
Total Delay	36.3	41.9	47.1	44.8	57.3
Total Mean Queue	3.2	1.0	1.1	1.2	2.0
Total Max Queue	8.0	6.7	6.4	6.5	8.0
Speed	11.0	9.8	8.4	10.0	7.5
C: A171 Cargo Fleet Lane (South)					
Flow	2,336.4	3,050.4	3,080.8	3,090.8	2,829.6
Total Delay	15.0	34.2	89.1	73.8	189.2
Total Mean Queue	9.5	5.7	15.9	12.8	33.5
Total Max Queue	21.3	27.1	43.7	43.6	67.3
Speed	30.2	29.6	28.7	29.8	29.3

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation on most arms of the junction with only small variations in the level of queueing and delay. However, the results show that the proposed development could give rise to an impact on the A171 Cargo Fleet Lane (South) arm of the junction. That is, an increase in delay of 54.8s per vehicle is predicted to occur with a corresponding reported increase in mean and maximum queueing of 10.2 and 16.6 vehicles respectively.

In the 2030 future assessment year scenario, the impact of the proposed development is exacerbated. That is:

- With the development in place, an increase in delay of 12.5s per vehicle is predicted to occur on the Cranmore Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 0.8 and 1.5 vehicles respectively.
- With the development in place, an increase in delay of 115.3s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 20.7 and 23.7 vehicles respectively.

Analysis

Through analysis of the model, it is noted that the vast majority of the reported impacts occur as a result of upstream congestion on A171 Cargo Fleet Lane on approach to the A171 Cargo Fleet Lane / A1085 Longlands Road junction. As such, northbound traffic frequently blocks back towards Cranmore Road which, in turn, results in further congestion to the south of the junction adjacent to Corpus Christ Primary School. The impacts associated with Cranmore Road occur because vehicles are unable to turn left out of the junction as a result of upstream congestion. This occurs due to the effect of the existing yellow box, whereby vehicles will only enter the junction should the link beyond be free of congestion and queueing. Notwithstanding the above, it is noted that the capacity of this junction is directly impacted by the capacity of the A171 Cargo Fleet Lane / A1085 Longlands Road junction and, as such, any impacts should not be considered in isolation.

It is considered that the impacts associated with the proposed development at J-12 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.9 J-14: A66 / A171 Cargo Fleet Lane Throughabout

Individual arm statistics for the J-14 are presented in Table 69 to Table 71, overleaf.

Table 69: Junction Statistics_J-14 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Works Road					
Flow	198.8	202.4	215.2	213.2	209.2
Total Delay	18.0	0.2	0.2	0.2	0.2
Total Mean Queue	0.2	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.1	0.2	0.1	0.2
Speed	34.1	45.0	44.8	44.7	44.5
B: A66 (East)					
Flow	6,294.4	6,820.0	6,834.8	6,996.0	7,092.4
Total Delay	44.0	82.0	91.3	99.8	178.8
Total Mean Queue	19.2	12.7	14.2	16.3	33.3
Total Max Queue	40.9	28.8	30.7	34.7	54.5
Speed	20.5	48.2	45.8	38.1	26.7
C: A171 Cargo Fleet Lane					
Flow	3,793.6	3,947.6	4,059.6	4,144.8	4,363.2
Total Delay	15.0	6.7	6.5	6.7	6.5
Total Mean Queue	1.1	0.5	0.5	0.5	0.5
Total Max Queue	4.9	3.5	3.3	3.5	3.5
Speed	20.6	29.3	30.4	29.6	30.6
D: A66 (West)					
Flow	5,652.4	5,617.6	5,743.2	5,868.4	6,556.0
Total Delay	39.2	17.8	19.1	19.1	18.8
Total Mean Queue	4.9	1.4	1.6	1.6	1.7
Total Max Queue	13.7	7.6	7.7	8.0	8.6
Speed	45.4	83.1	80.0	82.5	79.0
E: Cambridge Road					
Flow	637.6	642.8	636.0	682.4	668.4
Total Delay	8.5	0.1	0.1	0.1	0.1
Total Mean Queue	2.0	0.0	0.0	0.0	0.0
Total Max Queue	6.8	0.7	0.8	1.0	0.9
Speed	34.3	54.3	54.2	54.3	54.1

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to isolated impacts on the A66 (East) arm of the junction. That is, with the development in place, an increase in delay of 79.0s per vehicle is predicted to occur, with a corresponding reported increase in mean and maximum queueing of 17.0 and 19.8 vehicles respectively.

Table 70: Junction Statistics_J-14 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Works Road					
Flow	200.8	236.8	247.2	220.4	227.2
Total Delay	36.4	1.0	0.8	1.2	1.0
Total Mean Queue	0.3	0.0	0.0	0.0	0.0
Total Max Queue	1.4	0.2	0.3	0.3	0.3
Speed	16.0	38.9	39.6	39.2	39.5
B: A66 (East)					
Flow	3,287.6	3,494.0	3,699.2	3,627.6	4,229.2
Total Delay	16.4	24.0	27.6	23.8	85.1
Total Mean Queue	1.0	1.2	1.3	1.2	8.4
Total Max Queue	5.3	6.2	6.6	6.6	18.5
Speed	26.4	84.6	84.8	84.7	75.8
C: A171 Cargo Fleet Lane					
Flow	3,319.2	3,834.0	4,123.6	4,312.0	4,434.4
Total Delay	13.4	8.5	10.1	8.8	15.4
Total Mean Queue	0.9	0.6	0.8	0.7	1.4
Total Max Queue	4.5	4.2	4.6	4.5	5.4
Speed	22.6	25.4	25.3	25.6	24.5
D: A66 (West)					
Flow	5,597.6	6,527.6	6,046.8	6,702.8	5,796.8
Total Delay	24.9	119.6	307.7	133.9	606.0
Total Mean Queue	2.5	15.6	57.8	17.6	191.2
Total Max Queue	9.0	31.5	88.8	32.8	256.5
Speed	49.1	34.1	12.2	33.6	7.9
E: Cambridge Road					
Flow	946.8	1,004.8	1,020.8	978.8	976.8
Total Delay	5.7	0.1	0.1	0.1	0.1
Total Mean Queue	0.3	0.0	0.0	0.0	0.0
Total Max Queue	4.8	1.1	1.2	1.0	1.1
Speed	35.3	54.1	54.2	54.4	54.1

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the vast majority of the junction with only small variations in the level of queueing and delay. However, an isolated impact is predicted to occur on the A66 (West) arm of the junction. That is, with the development in place, an increase in delay of 188.1s is predicted to occur, with a corresponding reported increase in mean and maximum queueing of 42.2 and 57.3 vehicles respectively.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts at isolated locations across the junction. That is:

- With the development in place, an increase in delay of 61.2s per vehicle is predicted to occur on the A66 (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 7.2 and 11.9 vehicles respectively.
- With the development in place, an increase in delay of 472.1s per vehicle is predicted to occur on the A66 (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 173.5 and 223.7 vehicles respectively.

Table 71: Junction Statistics_J-14 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Works Road					
Flow	191.6	467.6	468.4	490.8	468.4
Total Delay	18.0	1.4	7.8	0.6	2.3
Total Mean Queue	46.0	0.0	0.1	0.0	0.0
Total Max Queue	59.3	0.9	1.1	0.8	0.8
Speed	6.2	41.6	40.2	42.4	41.7
B: A66 (East)					
Flow	3,800.4	4,455.2	4,800.8	4,647.6	5,104.0
Total Delay	18.0	77.5	373.3	216.0	720.2
Total Mean Queue	33.5	7.1	58.9	26.5	143.3
Total Max Queue	52.3	18.6	80.3	42.3	185.6
Speed	24.3	61.1	12.5	22.0	5.5
C: A171 Cargo Fleet Lane					
Flow	3,741.6	4,828.8	4,839.6	5,076.0	5,152.8
Total Delay	11.9	8.9	9.2	8.0	8.0
Total Mean Queue	0.9	0.8	0.8	0.7	0.7
Total Max Queue	4.4	4.1	4.4	4.1	4.2
Speed	24.4	23.9	24.8	25.5	26.9
D: A66 (West)					
Flow	7,672.8	7,639.6	5,342.4	8,394.0	5,630.0
Total Delay	56.8	533.1	1,277.0	412.5	1,311.5
Total Mean Queue	39.2	205.0	681.2	129.1	736.2
Total Max Queue	67.5	284.3	819.7	194.2	878.8
Speed	43.6	6.5	3.3	6.2	3.6
E: Cambridge Road					
Flow	810.0	1,020.0	982.0	950.0	1,002.4
Total Delay	10.9	0.1	0.1	0.1	0.1
Total Mean Queue	11.1	0.0	0.0	0.0	0.0
Total Max Queue	19.4	1.0	1.0	1.0	1.2
Speed	28.2	54.4	54.6	54.6	54.6

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is predicted to give rise to impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 295.8s per vehicle is predicted to occur on the A66 (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 51.9 and 61.7 vehicles respectively.
- With the development in place, an increase in delay of 743.9s per vehicle is predicted to occur on the A66 (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 476.2 and 535.4 vehicles respectively.

In the 2030 future assessment year scenario, the impact of the proposed development is exacerbated. That is:

- With the development in place, an increase in delay of 504.2s per vehicle is predicted to occur on the A66 (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 116.8 and 143.3 vehicles respectively.
- With the development in place, an increase in delay of 899.0 per vehicle is predicted to occur on the A66 (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 607.1 and 684.6 vehicles respectively.

Analysis

Through analysis of the model, it is noted that the vast majority of the reported impacts occur as a result of a built up of congestion on approach to the A66 throughabout. Due to the already high volume of vehicles turning right from the A66 (West) to A171 Cargo Fleet Lane, significant queueing is predicted to occur on approach to the junction which is exacerbated with the addition of development-generated traffic. A proportion of the impact is attributed to some vehicles merging into the nearside lanes on approach to the throughabout which, in turn, slows down vehicles travelling between the A66 (West) and A66 (East), thus increasing delay and queueing. Whilst the impacts are less significant on the eastern arm of the junction, these occur simply as a result of development-generated traffic adding to existing queues on approach to the A66 throughabout, thus exacerbating queueing and delay.

It is considered that the impacts associated with the proposed development at J-14 are likely to materially affect the operation of the junction in both the 2025 and 2030 future assessment year scenarios. That is, the results demonstrate that the proposed

development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.10 J-15: A171 Cargo Fleet Lane / College Road

Individual arm statistics for the J-15 are presented in Table 74 to Table 76, below and overleaf.

Table 72: Junction Statistics_J-15 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,034.0	2,459.6	2,529.2	2,612.4	2,520.8
Total Delay	22.6	26.1	24.4	25.6	24.1
Total Mean Queue	2.5	3.6	3.3	3.6	3.4
Total Max Queue	19.8	25.1	22.7	23.7	21.4
Speed	24.4	22.7	22.3	22.4	24.8
B: College Road					
Flow	946.0	1,239.2	1,269.6	1,314.8	794.4
Total Delay	35.3	57.3	62.0	59.3	454.3
Total Mean Queue	2.1	3.7	4.1	4.0	70.6
Total Max Queue	9.7	14.2	14.7	14.7	95.2
Speed	18.1	15.1	14.9	15.0	4.7
C: A171 Cargo Fleet Lane (South)					
Flow	2,563.6	2,382.4	2,432.4	2,376.8	1,992.4
Total Delay	13.8	15.4	14.8	14.3	108.1
Total Mean Queue	1.1	1.1	1.1	1.0	11.3
Total Max Queue	9.7	10.1	9.1	8.8	20.5
Speed	30.8	30.1	30.5	30.5	30.2

The results of the AM peak hour (08:00 - 09:00) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts across the junction. That is:

- With the development in place, an increase in delay of 395.0s per vehicle is predicted to occur on the College Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 66.0 and 80.4 vehicles respectively.
- With the development in place, an increase in delay of 93.8s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 10.3 and 11.7 vehicles respectively.

Table 73: Junction Statistics_J-15 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,141.6	1,954.0	2,098.4	2,108.0	2,248.0
Total Delay	19.8	19.1	21.7	20.1	22.7
Total Mean Queue	2.3	2.1	2.5	2.4	2.9
Total Max Queue	14.6	13.4	15.8	14.8	16.8
Speed	25.6	26.9	24.5	25.7	24.4
B: College Road					
Flow	925.2	1,194.8	1,199.6	1,203.6	942.8
Total Delay	34.6	53.3	55.9	62.8	572.2
Total Mean Queue	2.1	3.3	3.4	4.1	50.1
Total Max Queue	9.1	13.4	13.9	15.1	69.2
Speed	18.0	15.4	16.1	14.7	3.9
C: A171 Cargo Fleet Lane (South)					
Flow	2,666.0	2,942.0	3,077.2	3,028.4	2,717.6
Total Delay	13.1	18.1	19.8	20.9	80.9
Total Mean Queue	1.0	1.7	2.0	2.1	11.6
Total Max Queue	8.6	14.4	16.5	16.7	23.1
Speed	29.5	31.7	32.4	31.8	31.5

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in

place. However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on some arms of the junction. That is:

- With the development in place, an increase in delay of 509.4s per vehicle is predicted to occur on the College Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 46.0 and 54.1 vehicles respectively.
- With the development in place, an increase in delay of 60.0s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 9.5 and 6.4 vehicles respectively.

Table 74: Junction Statistics_J-15 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,327.6	2,888.0	2,841.2	2,982.4	2,760.4
Total Delay	30.6	24.1	32.5	42.2	100.6
Total Mean Queue	8.1	3.9	5.4	7.6	17.7
Total Max Queue	23.5	18.5	22.9	27.2	42.3
Speed	21.5	24.0	19.3	20.3	13.6
B: College Road					
Flow	831.6	1,258.4	1,264.0	1,216.4	912.0
Total Delay	44.8	84.0	255.8	196.4	733.3
Total Mean Queue	27.2	5.4	21.4	15.9	75.2
Total Max Queue	39.7	17.1	37.1	32.1	98.6
Speed	16.3	13.0	9.4	9.9	2.2
C: A171 Cargo Fleet Lane (South)					
Flow	2,114.8	2,853.6	2,936.8	2,901.6	2,887.6
Total Delay	14.3	20.4	30.8	25.0	50.6
Total Mean Queue	2.7	1.8	3.5	2.5	7.0
Total Max Queue	9.6	14.2	17.0	17.4	22.6
Speed	28.5	28.5	29.1	29.1	30.5

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation on most arms of the junction with only small variations in the level of queueing and delay. However, the results show that the proposed development could give rise to an impact on the College Road arm of the junction. That is, an increase in delay of 171.7s per vehicle is predicted to occur with a corresponding reported increase in mean and maximum queueing 16.1 and 19.9 vehicles respectively.

In the 2030 future assessment year scenario, the impact of the proposed development is exacerbated. That is:

- With the development in place, an increase in delay of 58.5s per vehicle is predicted to occur on the A171 Cargo Fleet Lane (North) arm of the junction, with a

corresponding reported increase in mean and maximum queueing of 10.0 and 15.1 vehicles respectively.

- With the development in place, an increase in delay of 536.9s per vehicle is predicted to occur on the College Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 59.3 and 66.5 vehicles respectively.
- With the development in place, an increase in delay of 25.6 per vehicle is predicted to occur on the A171 Cargo Fleet Lane (South) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 4.5 and 5.2 vehicles respectively.

Analysis

Through analysis of the model, it is noted that the vast majority of the reported impacts occur as a result of upstream congestion on A171 Cargo Fleet Lane. In particular, the operation of the junction is directly affected by the level of queueing and congestion at upstream junctions, such as the A171 Cargo Fleet Lane / Cranmore Road junction and the A171 Cargo Fleet Lane / A1085 Longlands Road junction. As a result of upstream congestion, vehicles intending to turn right out of College Road to travel northbound are unable to clear the junction during the allocated green time, thus exacerbating queueing and delay. Moreover, as a result of queueing through the junction, northbound vehicles are, on occasions, unable to clear the junction during the allocated green time.

Notwithstanding the above, it is noted that the capacity of this junction is directly impacted by the capacity at other locations on the A171 Cargo Fleet Lane corridor and, as such, any impacts should not be considered in isolation.

It is considered that the impacts associated with the proposed development at J-15 are likely to materially affect the operation of the junction in both the 2025 and 2030 future assessment year scenarios. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.11 J-16: A171 Cargo Fleet Lane / South Bank Road

Individual arm statistics for the J-16 are presented in Table 74 to Table 76, overleaf.

Table 74: Junction Statistics_J-16 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,229.6	2,419.6	2,511.6	2,542.0	2,891.2
Total Delay	6.4	45.1	44.9	44.9	45.5
Total Mean Queue	0.8	2.3	2.3	2.4	2.7
Total Max Queue	3.4	7.5	7.9	7.7	8.6
Speed	41.4	9.2	9.2	9.3	9.1
B: South Bank Road (East)					
Flow	1,852.4	1,937.6	1,979.2	2,000.0	2,131.6
Total Delay	9.8	35.0	34.7	33.9	36.9
Total Mean Queue	1.1	4.1	4.1	4.0	4.7
Total Max Queue	3.3	16.4	16.8	16.7	17.3
Speed	47.8	33.5	34.0	33.1	31.3
C: A171 Cargo Fleet Lane (South)					
Flow	3,102.8	3,156.8	3,324.4	3,272.8	3,393.6
Total Delay	3.7	21.3	23.3	22.0	24.7
Total Mean Queue	0.4	2.4	2.9	2.6	3.1
Total Max Queue	3.7	7.2	7.2	7.2	7.1
Speed	29.6	28.6	28.0	29.6	28.2
D: South Bank Road (West)					
Flow	329.6	332.8	349.6	344.0	338.4
Total Delay	13.3	78.2	77.1	81.3	75.1
Total Mean Queue	0.3	0.9	1.0	1.0	0.9
Total Max Queue	2.0	4.5	4.7	4.6	4.6
Speed	50.0	45.0	42.9	41.9	45.4

The results of the AM peak hour (08:00 - 09:00) show that the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

Table 75: Junction Statistics_J-16 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,913.6	3,618.4	3,551.6	3,660.0	3,446.4
Total Delay	3.2	50.7	51.6	51.1	58.7
Total Mean Queue	0.2	3.8	3.8	3.9	4.3
Total Max Queue	3.2	10.5	10.4	10.7	11.2
Speed	40.5	8.5	8.5	8.6	8.2
B: South Bank Road (East)					
Flow	1,619.2	1,620.4	1,642.8	1,650.0	1,826.4
Total Delay	4.5	28.0	27.9	29.7	30.8
Total Mean Queue	0.1	2.3	2.4	2.5	2.9
Total Max Queue	2.3	14.4	14.4	15.0	16.3
Speed	50.3	41.3	41.7	41.7	39.0
C: A171 Cargo Fleet Lane (South)					
Flow	2,610.8	2,784.0	3,142.0	3,215.6	3,401.6
Total Delay	2.7	21.7	23.3	23.8	24.9
Total Mean Queue	0.2	2.2	2.7	2.8	3.2
Total Max Queue	3.1	7.2	7.2	7.2	7.2
Speed	33.6	28.7	28.6	30.2	28.6
D: South Bank Road (West)					
Flow	631.6	562.8	568.0	588.8	561.6
Total Delay	9.6	111.1	128.1	127.3	125.5
Total Mean Queue	0.1	2.8	3.3	3.4	3.3
Total Max Queue	2.4	7.4	8.1	8.2	7.6
Speed	50.5	30.3	25.2	25.1	26.4

The results of the inter peak hour (12:30 - 13:30) show that the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

Table 76: Junction Statistics_J-16 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Cargo Fleet Lane (North)					
Flow	2,882.0	3,326.0	2,664.4	3,610.0	2,862.4
Total Delay	5.4	67.8	78.8	52.5	64.0
Total Mean Queue	1.7	4.8	4.6	4.0	4.0
Total Max Queue	5.8	11.8	10.0	11.7	9.7
Speed	37.8	6.7	6.6	7.8	7.6
B: South Bank Road (East)					
Flow	1,897.2	2,257.2	2,257.2	2,249.6	2,406.4
Total Delay	6.1	66.2	108.4	53.2	87.7
Total Mean Queue	2.3	7.4	9.7	7.6	11.4
Total Max Queue	4.9	19.9	22.2	18.3	21.2
Speed	49.9	28.2	25.3	27.0	21.6
C: A171 Cargo Fleet Lane (South)					
Flow	2,263.2	2,766.4	2,930.8	3,031.2	3,200.4
Total Delay	4.8	27.3	29.3	26.9	28.1
Total Mean Queue	0.9	2.7	3.2	3.0	3.4
Total Max Queue	4.1	7.1	7.1	7.1	7.2
Speed	27.7	26.4	27.5	27.7	27.6
D: South Bank Road (West)					
Flow	553.2	614.8	570.8	597.6	627.2
Total Delay	15.6	63.2	81.4	56.1	63.7
Total Mean Queue	0.8	1.2	1.8	1.1	1.5
Total Max Queue	3.0	6.4	7.0	6.2	6.8
Speed	50.9	43.6	41.3	45.2	41.5

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is predicted to give rise to impacts across some arms of the junction. That is:

- With the development in place, an increase in delay of 42.2s per vehicle is predicted to occur on the South Bank Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 2.3 vehicles.

- With the development in place, an increase in delay of 18.2s per vehicle is predicted to occur on the South Bank Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of less than 1 vehicle.

In the 2030 future assessment year scenario, the impact of the proposed development is as follows:

- With the development in place, an increase in delay of 34.5s per vehicle is predicted to occur on the South Bank Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 3.9 and 2.9 vehicles respectively.
- With the development in place, an increase in delay of 7.6s per vehicle is predicted to occur on the South Bank Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of less than 1 vehicle.

Analysis

Through analysis of the model, it is noted that the reported impacts generally occur as a result of the build-up of congestion and increased demand travelling through the junction with the development in place. The impacts on the eastern arm of the junction occur as a result of vehicles being unable to turn right onto A171 Cargo Fleet Lane during the allocated green time. As such, some vehicles are required to wait at least two cycles of the traffic signals which, in turn, results in an increase in delay and queueing. The impacts on the western arm of the junction are largely attributed to the southbound capacity of A171 Cargo Fleet Lane. That is, on occasions, southbound traffic can queue to the exit arm of the junction which, in turn, results in vehicles intending to turn right being unable to enter and clear the junction.

It is considered that the impacts associated with the proposed development at J-16 are unlikely to materially affect the operation of the junction in the 2025 future assessment year scenario. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place. However, it is considered that the impacts associated with the proposed development in the 2030 future assessment year scenario are likely to significantly affect the operation of the junction. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

6.4.12 J-18: Ormesby Road / A1085 Longlands Road / Kings Road

Individual arm statistics for the J-18 are presented in Table 77 to Table 79, overleaf.

Table 77: Junction Statistics_J-18 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Kings Road					
Flow	1,164.8	1,053.2	1,041.2	990.8	1,127.6
Total Delay	19.3	19.3	19.1	18.4	19.5
Total Mean Queue	0.8	0.7	0.7	0.6	0.7
Total Max Queue	4.2	3.9	3.8	3.6	4.0
Speed	23.7	23.1	23.6	23.9	23.3
B: A1085 Longlands Road (East)					
Flow	1,862.0	2,145.6	2,070.8	2,186.0	2,226.8
Total Delay	67.1	69.7	75.4	85.8	91.8
Total Mean Queue	2.8	3.3	3.5	4.3	4.7
Total Max Queue	8.0	9.0	9.4	10.6	11.2
Speed	5.3	5.1	4.9	4.3	4.0
C: Ormesby Road					
Flow	3,906.8	3,987.6	4,060.4	4,064.8	4,098.0
Total Delay	59.3	75.1	72.1	75.8	74.8
Total Mean Queue	8.6	12.3	11.7	12.6	12.6
Total Max Queue	25.4	26.5	26.5	26.7	27.2
Speed	20.7	19.5	19.6	19.3	18.6
D: A1085 Longlands Road (West)					
Flow	3,726.8	3,903.6	3,895.6	3,915.6	3,894.4
Total Delay	115.1	98.4	119.4	117.8	123.3
Total Mean Queue	12.2	10.7	13.3	13.4	13.7
Total Max Queue	25.3	23.5	25.6	27.5	27.9
Speed	24.1	24.3	24.2	24.7	24.7

The results of the AM peak hour (08:00 - 09:00) show that the proposed development is not predicted to materially impact on the operation of most arms of the junction with only small variations in the level of queueing and delay. However, the results show that an impact is predicted to occur on the A1085 Longlands Road (West) arm of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in delay of 21.1s per vehicle is predicted to occur, with a corresponding reported increase in mean and maximum queueing of 2.6 and 2.1 vehicles respectively.
- In the 2030 future assessment year scenario with the development in place, an increase in delay of 5.5s per vehicle is predicted to occur, with a corresponding reported increase in mean and maximum queueing of 0.3 and 0.4 vehicles respectively.

Table 78: Junction Statistics_J-18 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Kings Road					
Flow	1,994.4	1,833.2	1,904.0	1,998.0	2,240.8
Total Delay	28.3	31.6	29.1	32.0	33.4
Total Mean Queue	1.8	1.9	1.8	2.1	2.5
Total Max Queue	7.4	6.7	6.9	7.5	7.9
Speed	18.7	17.1	17.8	17.6	18.1
B: A1085 Longlands Road (East)					
Flow	1,741.2	2,055.2	2,028.4	2,060.8	2,068.8
Total Delay	58.1	60.8	61.4	69.9	68.0
Total Mean Queue	2.2	2.8	2.7	3.3	3.2
Total Max Queue	6.8	8.1	7.9	8.8	9.3
Speed	8.1	7.8	7.6	7.4	7.0
C: Ormesby Road					
Flow	3,308.8	3,393.6	3,388.0	3,726.8	3,640.8
Total Delay	45.9	52.6	49.0	63.3	62.3
Total Mean Queue	6.0	7.4	6.6	10.3	9.7
Total Max Queue	25.2	25.5	25.1	26.3	26.6
Speed	24.8	24.9	24.8	24.4	23.4
D: A1085 Longlands Road (West)					
Flow	3,754.4	3,413.6	3,442.4	3,738.0	3,823.2
Total Delay	62.1	82.8	81.5	133.6	155.3
Total Mean Queue	6.0	7.6	7.5	14.1	17.0
Total Max Queue	16.7	18.6	18.5	26.8	33.0
Speed	26.3	25.7	25.9	27.0	27.2

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the vast majority of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario an isolated impacts is forecast on the A1085 Longlands Road (West) arm of the junction. That is, with the development in place, an increase in delay of 21.7s per vehicle is predicted to occur, with a corresponding reported increase in mean and maximum queueing of 2.9 and 6.2 vehicles respectively.

Table 79: Junction Statistics_J-18 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: Kings Road					
Flow	2,758.0	2,869.2	3,014.0	2,686.8	2,820.8
Total Delay	44.7	50.2	47.5	53.2	48.5
Total Mean Queue	4.1	4.8	4.8	4.9	4.6
Total Max Queue	8.6	9.3	9.7	9.3	8.9
Speed	19.7	18.7	19.4	18.7	20.3
B: A1085 Longlands Road (East)					
Flow	1,802.8	2,112.4	2,151.2	2,158.0	2,296.8
Total Delay	67.2	74.6	83.7	106.4	113.4
Total Mean Queue	2.7	3.6	4.1	6.8	6.4
Total Max Queue	7.6	9.8	10.8	14.9	15.4
Speed	6.5	6.1	6.1	5.5	5.6
C: Ormesby Road					
Flow	3,144.8	3,321.2	3,384.8	3,269.6	3,316.8
Total Delay	71.7	79.4	89.2	90.4	98.4
Total Mean Queue	9.2	10.8	12.5	12.3	13.8
Total Max Queue	25.4	26.1	26.4	26.6	27.0
Speed	21.9	21.5	20.6	20.6	19.8
D: A1085 Longlands Road (West)					
Flow	3,635.2	3,753.2	3,629.6	3,736.8	3,820.4
Total Delay	169.6	366.6	372.6	350.7	357.3
Total Mean Queue	18.9	46.8	46.4	45.5	46.9
Total Max Queue	34.4	75.3	74.8	74.2	75.3
Speed	16.6	17.2	17.1	18.1	17.5

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is predicted to give rise to isolated impacts across some arms of the junction. That is:

- With the development in place, an increase in delay of 7.0s per vehicle is predicted to occur on the A1085 Longlands Road (East) arm of the junction, with no reported increase in mean and maximum queueing.
- With the development in place, an increase in delay of 8.0s per vehicle is predicted to occur on the Ormesby Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.4 and 0.4 vehicles respectively.
- With the development in place, an increase in delay of 6.6s per vehicle is predicted to occur on the A1085 Longlands Road (West) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.4 and 1.1 vehicles respectively.

In the 2030 future assessment year scenario, the impact of the proposed development is exacerbated. That is:

- With the development in place, an increase in delay of 9.1s per vehicle is predicted to occur on the A1085 Longlands Road (East) arm of the junction, with a corresponding reported increase in mean and maximum queueing of 0.6 and 1.1 vehicles respectively.
- With the development in place, an increase in delay of 9.8s per vehicle is predicted to occur on the Ormesby Road arm of the junction, with a corresponding reported increase in mean and maximum queueing of 1.7 and 0.3 vehicles respectively.
- With the development in place, an increase in delay of 5.9s per vehicle is predicted to occur on the A1085 Longlands Road (West) arm of the junction, with no reported increase in mean and maximum queueing.

Analysis

Through analysis of the model, it is noted that the reported impacts generally occur as a result of the build-up of congestion and increased demand travelling through the junction with the development in place. On the Ormesby Road arm of the junction, the vast majority of the impacts occur as a result of the short two-lane approach capacity and link capacity of Ormesby Road travelling northbound. As such, traffic frequently queues on Ormesby Road towards the Homerton Road roundabout. On the western arm of the junction, the vast majority of the impacts occur as a result of right turning vehicles being unable to clear the junction during the allocated green time. This occurs as a result of



downstream congestion on Ormesby Road and the presence of an on-street bus stop a short distance to the south of the junction. As such, the junction can be particularly sensitive to small changes in traffic flows. Moreover, it is also noted that the high volume of right turners significantly effects the link capacity of A1085 Longlands Road (West). That is, right turning vehicles queue in the offside lane, thus effectively reducing the capacity of the link to one lane for ahead movements and left turns.

In general, it is considered that the impacts associated with the proposed development at J-18 are unlikely to materially affect the operation of the junction across both future assessment year scenarios. As such, it is considered that the junction is likely to operate satisfactorily with the proposed development in place.

6.5 Junction Statistics - Macroscopic Model

Since the model runs at both a macroscopic and microscopic level, not all junctions that require to be assessed are included within the microsimulation subnetwork. When this occurs, it is possible to extract results from the wider-area macroscopic model assignment in order to understand the impact of a proposed development, although the results will not be as detailed.

Table 80, below, explains the statistics that have been presented. Detailed junction statistics are presented at Appendix F.

Table 80: Individual Arm Statistics Description

Statistic	Units	Analytical Use
Flow	veh/h	This shows the actual traffic flow on each arm of the junction.
Travel Time	s	This shows the average travel time to traverse each arm of the junction.
Mean Max Queue	PCU	This shows the mean maximum queue on each arm of the junction.

As set out at section 5.2, an initial screening exercise has been undertaken using the macroscopic model results. The results of the screening exercise are summarised at section 5.2 and provided in full at Appendix C. The screening exercise determined that junction assessments were required at 26 junctions across the macroscopic model area. These are:

- J-20: A1032 Acklam Road / Croft Avenue / Green Lane.
- J-21: Mandale Road / A1032 Acklam Road.
- J-22: A66 Tees Flyover / A19 (Northbound) Merge.

- J-23: A1032 Acklam Road / Heywood Street / Ayresome Green Lane / Ayresome Street.
- J-24: A1032 Acklam Road / Lodore Grove.
- J-25: A1043 Nunthorpe Bypass / Unnamed Minor Access Road.
- J-26: Dixons Bank / Gunnergate Lane / Gypsy Lane.
- J-27: B1380 Ladgate Lane / Alan Peacock Way.
- J-28: Mandale Interchange.
- J-29: A174 Parkway.
- J-30: Mandale Road / Levick Crescent.
- J-31: B1380 Ladgate Lane / A1032 Acklam Road / Low Lane.
- J-32: Low Lane / Stainton Way.
- J-33: B1365 / Viewley Hill Avenue / Newham Way .
- J-34: A172 Marton Road / A172 Stokesley Road / B1380 Ladgate Lane.
- J-35: A172 Stokesley Road / A174 Parkway.
- J-36: A172 Dixons Bank / Stainton Way.
- J-37: A172 Dixons Bank / Guisborough Road.
- J-38: A172 Ormesby Bank / Middlesbrough Road / A1043 Nunthorpe Bypass / Guisborough Road.
- J-39: A172 Ormesby Bank / A174 Off-Slip / Church Lane.
- J-40: Stainton Way / Dalby Way.
- J-41: Stainton Way / The King's Academy.
- J-42: Park Vale Road / Clairville Road / Park Road North.
- J-43: A172 Marton Road / James Cook University Hospital (Southern Access).

- J-44: A172 Stokesly Road / Hemlington Grange Way.
- J-45: A172 Marton Road / Clairville Road.

Consistent with the microscopic modelling results, a review of the model outputs for each junction has been undertaken and a summary the likely impacts as a result of the proposed development is set out in Table 81, overleaf. This review identifies that the impact of the proposed development is considered significant at only 2 of the 26 junctions assessed. This occurs because:

- The change in traffic flows at these locations as a result of the proposed development is negligible.
- The junctions included in the macroscopic model area are further from the site and, as such, development-generated traffic is likely to be dispersed across the network, thus reducing the impact.

Table 81: Summary of Impacts

Reference	Junction Name	Identified Impact		
		AM	IP	PM
J-20	A1032 Acklam Road / Croft Avenue / Green Lane	×	×	×
J-21	Mandale Road / A1032 Acklam Road	×	×	×
J-22	A66 Tees Flyover / A19 (Northbound) Merge	×	×	×
J-23	A1032 Acklam Road / Heywood Street / Ayresome Green Lane / Ayresome Street	×	×	×
J-24	A1032 Acklam Road / Lodore Grove	×	×	×
J-25	A1043 Nunthorpe Bypass / Unnamed Minor Access Road	×	×	×
J-26	Dixons Bank / Gunnergate Lane / Gypsy Lane	×	×	×
J-27	B1380 Ladgate Lane / Alan Peacock Way	×	×	×
J-28	Mandale Interchange	×	×	×
J-29	A174 Parkway	×	×	×
J-30	Mandale Road / Levick Crescent	×	×	×
J-31	B1380 Ladgate Lane / A1032 Acklam Road / Low Lane	×	×	×
J-32	Low Lane / Stainton Way	×	×	×
J-33	B1365 / Viewley Hill Avenue / Newham Way	×	×	×
J-34	A172 Marton Road / A172 Stokesley Road / B1380 Ladgate Lane	×	×	×
J-35	A172 Stokesley Road / A174 Parkway	✓	×	✓
J-36	A172 Dixons Bank / Stainton Way	×	×	×
J-37	A172 Dixons Bank / Guisborough Road	×	×	×
J-38	A172 Ormesby Bank / Middlesbrough Road / A1043 Nunthorpe Bypass / Guisborough Road	×	×	×
J-39	A171 Ormesby Bank / A174 Off-Slip / Church Lane	✓	✓	✓
J-40	Stainton Way / Dalby Way	×	×	×
J-41	Stainton Way / The King's Academy	×	×	×
J-42	Park Vale Road / Clairville Road / Park Road North	×	×	×
J-43	A172 Marton Road / James Cook University Hospital (Southern Access)	×	×	×
J-44	A172 Stokesly Road / Hemlington Grange Way	×	×	×
J-45	A172 Marton Road / Clairville Road	×	×	×

As such, detailed junction statistics are presented below for each junction identified for assessment.

6.5.1 J-35: A172 Stokesley Road / A174 Parkway

Individual arm statistics for the J-35 are presented in Table 82 to Table 84, below and overleaf.

Table 82: Junction Statistics_J-35 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A172 Stokesley Road (North)					
Flow	612.8	652.2	653.0	691.8	696.5
Travel Time	14.7	14.8	14.8	15.0	15.0
Mean Max Queue	5.0	5.4	5.4	5.8	5.8
B: A174 Westbound Off-Slip					
Flow	372.4	483.0	494.6	507.5	511.6
Travel Time	24.9	36.9	41.3	50.9	59.1
Mean Max Queue	1.3	1.9	2.2	2.7	3.2
C: A172 Stokesley Road (South)					
Flow	681.1	700.2	709.9	717.3	729.3
Travel Time	15.7	15.4	15.5	15.6	15.8
Mean Max Queue	15.0	15.8	16.1	16.4	16.9
D: A174 Eastbound Off-Slip					
Flow	842.4	835.9	831.7	856.6	860.6
Travel Time	38.0	38.2	38.0	39.3	39.6
Mean Max Queue	9.9	9.4	9.4	10.3	10.9

The results of the AM peak hour (08:00 - 09:00) show that, across both future assessment year scenarios, the proposed development is predicted to give rise to impacts on some arms of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in travel time of 4.4s is predicted to occur on the A174 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean maximum queueing of less than 1 vehicle.
- In the 2030 future assessment year scenario with the development in place, an increase in travel time of 8.1s is predicted to occur on the A174 Westbound Off-Slip

arm of the junction, with a corresponding reported increase in mean maximum queueing of less than 1 vehicle.

Table 83: Junction Statistics_J-35 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A172 Stokesley Road (North)					
Flow	638.2	636.8	622.2	641.3	614.5
Travel Time	14.7	14.7	14.2	14.7	14.2
Mean Max Queue	5.4	5.3	4.0	5.3	4.0
B: A174 Westbound Off-Slip					
Flow	56.2	58.4	59.1	59.4	61.1
Travel Time	15.0	14.2	14.5	14.5	15.1
Mean Max Queue	0.1	0.1	0.1	0.1	0.1
C: A172 Stokesley Road (South)					
Flow	536.5	546.4	571.6	558.5	573.0
Travel Time	13.9	13.4	14.5	13.5	14.5
Mean Max Queue	10.4	10.7	9.5	11.0	9.6
D: A174 Eastbound Off-Slip					
Flow	542.0	380.3	431.0	426.9	513.3
Travel Time	29.2	26.6	18.9	27.3	19.8
Mean Max Queue	6.6	3.9	2.8	4.4	3.7

The results of the inter peak hour (12:30 - 13:30) show that the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

Table 84: Junction Statistics_J-35 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A172 Stokesley Road (North)					
Flow	776.8	807.7	784.9	806.0	800.9
Travel Time	15.3	15.4	15.3	15.4	15.4
Mean Max Queue	6.3	6.6	6.4	6.6	6.5
B: A174 Westbound Off-Slip					
Flow	299.9	388.1	391.0	398.9	414.0
Travel Time	20.4	25.8	25.6	28.6	31.0
Mean Max Queue	0.9	1.0	1.0	1.1	1.3
C: A172 Stokesley Road (South)					
Flow	565.4	644.1	646.7	665.6	674.0
Travel Time	14.2	14.6	14.6	14.9	15.0
Mean Max Queue	11.2	13.7	13.8	14.5	14.8
D: A174 Eastbound Off-Slip					
Flow	776.5	719.9	740.6	797.8	852.4
Travel Time	34.4	33.1	33.7	36.7	42.9
Mean Max Queue	9.4	8.6	8.9	11.0	13.9

The results of the PM peak hour (16:30 - 17:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on the A174 Eastbound Off-Slip arm of the junction. That is, with the development in place, an increase in travel time of 6.3s is predicted to occur, with a corresponding reported increase in mean maximum queueing of 2.9 vehicles.

Analysis

In general, it is considered that the magnitude of impacts associated with the proposed development at J-35 are unlikely to materially affect the operation of the junction across both future assessment year scenarios.

6.5.2 J-39: A171 Ormesby Bank / A174 Off-Slip / Church Lane

Individual arm statistics for the J-39 are presented in Table 85 to Table 87, below and overleaf.

Table 85: Junction Statistics_J-35 – AM Peak Hour (08:00 – 09:00)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Ormesby Bank (North)					
Flow	475.7	484.5	487.1	494.7	494.9
Travel Time	2.2	2.2	2.2	2.2	2.2
Mean Max Queue	0.0	0.0	0.0	0.0	0.0
B: A174 Westbound Off-Slip					
Flow	312.0	310.2	346.8	306.0	387.9
Travel Time	82.3	101.6	192.0	163.4	354.2
Mean Max Queue	3.6	4.0	9.1	6.5	13.6
C: A171 Ormesby Road (South)					
Flow	1,103.9	1,279.7	1,322.6	1,392.7	1,515.0
Travel Time	8.8	9.3	9.3	9.8	9.8
Mean Max Queue	0.2	0.3	0.3	0.4	0.4
D: Church Lane					
Flow	0.4	0.5	0.5	0.5	0.5
Travel Time	18.4	20.7	21.1	22.6	26.0
Mean Max Queue	0.0	0.0	0.0	0.0	0.0

The results of the AM peak hour (08:00 - 09:00) show that, across both future assessment year scenarios, the proposed development is predicted to give rise to impacts on some arms of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in travel time of 90.5s is predicted to occur on the A174 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean maximum queueing of 5.1 vehicles.
- In the 2030 future assessment year scenario with the development in place, an increase in travel time of 190.8s is predicted to occur on the A174 Westbound Off-

Slip arm of the junction, with a corresponding reported increase in mean maximum queueing of 7.1 vehicles.

Table 86: Junction Statistics_J-35 – Inter Peak Hour (12:30 – 13:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Ormesby Bank (North)					
Flow	519.7	645.5	620.3	678.9	636.2
Travel Time	2.2	2.2	2.2	2.2	2.2
Mean Max Queue	0.0	0.0	0.0	0.0	0.0
B: A174 Westbound Off-Slip					
Flow	199.7	232.8	273.9	257.9	356.7
Travel Time	33.9	38.3	42.1	42.1	73.9
Mean Max Queue	0.3	0.5	0.8	0.7	2.9
C: A171 Ormesby Road (South)					
Flow	591.9	736.0	784.9	828.4	940.8
Travel Time	7.9	8.4	8.4	8.8	8.7
Mean Max Queue	0.1	0.1	0.1	0.2	0.2
D: Church Lane					
Flow	60.7	61.0	61.0	62.4	62.4
Travel Time	17.4	19.5	19.5	21.0	21.2
Mean Max Queue	0.2	0.2	0.2	0.3	0.3

The results of the inter peak hour (12:30 - 13:30) show that, in the 2025 future assessment year scenario, the proposed development is not predicted to materially impact on the operation of the junction with only small variations in the level of queueing and delay. As such, the junction is likely to operate satisfactorily with the proposed development in place.

However, in the 2030 future assessment year scenario, the results show that the proposed development is likely to give rise to more noticeable impacts on the A174 Westbound Off-Slip arm of the junction. That is, with the development in place, an increase in travel time of 31.9s is predicted to occur, with a corresponding reported increase in mean maximum queueing of 2.2 vehicles.

Table 87: Junction Statistics_J-35 – PM Peak Hour (16:30 – 17:30)

Statistic	2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
A: A171 Ormesby Bank (North)					
Flow	779.8	875.0	867.6	929.0	911.9
Travel Time	2.2	2.2	2.2	2.2	2.2
Mean Max Queue	0.0	0.0	0.0	0.0	0.0
B: A174 Westbound Off-Slip					
Flow	427.2	433.7	441.0	422.3	438.3
Travel Time	109.3	304.1	375.3	573.5	784.8
Mean Max Queue	5.5	15.0	18.6	23.5	30.0
C: A171 Ormesby Road (South)					
Flow	811.7	954.1	980.4	1,063.3	1,128.0
Travel Time	9.0	10.0	9.9	10.9	10.7
Mean Max Queue	0.2	0.3	0.2	0.3	0.3
D: Church Lane					
Flow	0.0	0.2	0.2	0.2	0.2
Travel Time	17.6	20.2	20.7	24.0	26.6
Mean Max Queue	0.0	0.0	0.0	0.0	0.0

The results of the PM peak hour (16:30 - 17:30) show that, across both future assessment year scenarios, the proposed development is predicted to give rise to impacts on some arms of the junction. That is:

- In the 2025 future assessment year scenario with the development in place, an increase in travel time of 71.2s is predicted to occur on the A174 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean maximum queueing of 3.6 vehicles.
- In the 2030 future assessment year scenario with the development in place, an increase in travel time of 211.3s is predicted to occur on the A174 Westbound Off-Slip arm of the junction, with a corresponding reported increase in mean maximum queueing of 6.5 vehicles.

Analysis

Analysis of the macroscopic model assignment suggests that a large proportion of development-generated traffic is expected to use the A174 Westbound Off-Slip to arrive and depart from the Middlesbrough local authority area. Given that the A171 corridor is a heavily used route during the AM (08:00 - 09:00) and PM (16:30 - 17:30) peak hours, vehicles intending to turn right out of the junction incur a large increase in delay as there are likely to be insufficient gaps in mainline traffic. As such, the addition of development-generated exacerbates this which, in turn, results in an increase in delay and queuing on this arm of the junction.

It is considered that the impacts associated with the proposed development at J-14 are likely to materially affect the operation of the junction in both the 2025 and 2030 future assessment year scenarios. That is, the results demonstrate that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

Notwithstanding the above, it should be noted that the modelling demonstrates that the V/C of the right turn movement out of the junction is forecast to operate above capacity in the 2025 and 2030 do minimum future assessment year scenarios and the proposed development is therefore adding to an existing issue.

6.6 Junction Assessment Summary

A summary of the identified impacts at each of the junctions assessed is set out in Table 88, overleaf. For ease of reference, it should be noted that:

- Where the impact is shaded green, it is considered that the junction is likely to operate satisfactorily across all of the time periods assessed.
- Where the impact is shaded red, it is considered that the proposed development could give rise to a detrimental impact on the operation of the junction across at least one of the time periods assessed.

Table 88: Summary of Impacts Identified

Reference	Junction Name	Impact	
		2025	2030
J-01	Riverside Park Road / Ironmasters Way		
J-02	Newport Interchange		
J-03	Hartington Interchange		
J-04	Metz Bridge Road / A178 North Road		
J-05	Newport Road / Marsh Street		
J-06	Lower Feversham Street / Cleveland Street		
J-07	West Terrace / Cromwell Street		
J-08	A66 / Borough Road GSJ		
J-09	Shepherdson Way / Heath Road		
J-10	A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield		
J-11	A171 Cargo Fleet Lane / A1085 Longlands Road		
J-12	A171 Cargo Fleet Lane / Cranmore Road		
J-13	A171 Cargo Fleet Lane / Minor Access Road		
J-14	A66 / A171 Cargo Fleet Lane Throughabout		
J-15	A171 Cargo Fleet Lane / College Road		
J-16	A171 Cargo Fleet Lane / South Bank Road		
J-17	B1380 Ladgate Lane / Ormesby Road		
J-18	Ormesby Road / A1085 Longlands Road / Kings Road		
J-19	Ormesby Road / A1085 Longlands Road / Kings Road		
J-20	A1032 Acklam Road / Croft Avenue / Green Lane		
J-21	Mandale Road / A1032 Acklam Road		
J-22	A66 Tees Flyover / A19 (Northbound) Merge		
J-23	A1032 Acklam Road / Heywood Street / Ayresome Green Lane / Ayresome Street		
J-24	A1032 Acklam Road / Lodore Grove		
J-25	A1043 Nunthorpe Bypass / Unnamed Minor Access Road		
J-26	Dixons Bank / Gunnergate Lane / Gypsy Lane		
J-27	B1380 Ladgate Lane / Alan Peacock Way		
J-28	Mandale Interchange		

Reference	Junction Name	Impact	
		2025	2030
J-29	A174 Parkway		
J-30	Mandale Road / Levick Crescent		
J-31	B1380 Ladgate Lane / A1032 Acklam Road / Low Lane		
J-32	Low Lane / Stainton Way		
J-33	B1365 / Viewley Hill Avenue / Newham Way		
J-34	A172 Marton Road / A172 Stokesley Road / B1380 Ladgate Lane		
J-35	A172 Stokesley Road / A174 Parkway		
J-36	A172 Dixons Bank / Stainton Way		
J-37	A172 Dixons Bank / Guisborough Road		
J-38	A172 Ormesby Bank / Middlesbrough Road / A1043 Nunthorpe Bypass / Guisborough Road		
J-39	A171 Ormesby Bank / A174 Off-Slip / Church Lane		
J-40	Stainton Way / Dalby Way		
J-41	Stainton Way / The King's Academy		
J-42	Park Vale Road / Clairville Road / Park Road North		
J-43	A172 Marton Road / James Cook University Hospital (Southern Access)		
J-44	A172 Stokesley Road / Hemlington Grange Way		
J-45	A172 Marton Road / Clairville Road		

6.7 Summary of Aimsun Modelling Results

The Aimsun modelling results demonstrate that:

- In relation to the network-wide model statistics, it is considered that, on balance, Subnetwork 1 (Middlesbrough Central) and Subnetwork 4 (Ormesby Road Corridor) are unlikely to be significantly affected by the proposed development. That is, when considering the network as a whole, the impact of the proposed development is negligible, and the results show that the network, overall, would likely operate satisfactorily with the development in place.
- In relation to Subnetwork 2 (A171 Cargo Fleet Lane Corridor), the network-wide model statistics show that the overall network is predicted to be significantly affected by the proposed development. That is, large increases in delay are reported during both assessment periods, alongside a substantial increase in the number of

vehicles either queueing inside the network or waiting to enter the network at the end of the simulation period.

- In terms of the journey time analysis undertaken, the modelling suggests that, in 2025, the proposed development is unlikely to give rise to a severe impact on journey times in Subnetwork 1 and Subnetwork 4. All 7 of the routes potentially severely affected by the proposed development in 2025 are located in Subnetwork 2.
- With the addition of further development-generated traffic in 2030 (as a result of the full build out of the proposed development), the modelling suggests that, of the 22 routes potentially severely affected, four of these routes are in Subnetwork 1 and Subnetwork 4. The remaining 16 routes potentially severely affected by the proposed development are in Subnetwork 2.
- In terms of the detailed junction statistics, the modelling demonstrates that the vast majority of the reported impacts in 2025 are isolated to two locations on the network, both of which are located in Subnetwork 2. Whilst an increased number of junctions are potentially significantly affected by the proposed development (10 junctions), 6 of these are located in Subnetwork 2.

In summary, it is therefore considered that the vast majority of the impacts reported are concentrated to the eastern edge of the model along the A171 Cargo Fleet Lane corridor and the A66 trunk road. This is because a large proportion of development-generated traffic is predicted to arrive and depart the site via routes accessed from this area of Middlesbrough.

Whilst this report provides an assessment of the future operation of the local highway network in the 2025 and 2030 future year assessment scenarios, it is generally considered that the impact of a proposed development on the local highway network would usually be assessed five years following the date of registration of the planning application. On the basis that the planning application is due to be submitted in 2020, it is considered that a future assessment year scenario of 2025 would normally be assessed.

However, it should be noted that only 40% of the site is expected to be built out and occupied by 2025, with the remaining 60% of the site expected to be built out and occupied between 2025 and 2030. Given that the interim years have not been explicitly modelled, it is therefore necessary to consider the results of the 2030 future assessment year scenario in order to understand the impact of the full build out of the development.

Taking into account the above, it is considered that the proposed development is predicted to give rise to detrimental impact on the operation of the local highway network in the 2025 future assessment year scenario. As set out above, these impacts are concentrated on two key junctions on the A171 Cargo Fleet Lane corridor and A66 trunk road.

Moreover, in relation to the full build out of the proposed development, it is considered that that these impacts are exacerbated and become more widespread across the network. That is, the modelling suggests that additional junctions are likely to be affected by the proposed development, beyond those identified in 2025.

As such, the results demonstrate that the proposed development is unlikely to be satisfactorily accommodated on the local highway network in both the 2025 and 2030 future assessment year scenarios and the residual cumulative impacts of the proposed development could potentially be considered to be severe within the context of Paragraph 109 of the NPPF.

7 Summary and Conclusions

7.1 Commission

Following the development of the Middlesbrough Transport Model, Fore have been appointed by Arup to undertake microsimulation Aimsun modelling of proposals to redevelop an area of land at the STDC site, Redcar.

The proposed development seeks to provide up to 418,000 sqm of general industry (Planning Use Class B2) and storage and distribution facilities (Planning Use Class B8), with ancillary office accommodation, HGV and car parking, and associated works.

7.2 Summary

This report provides an assessment of the impact of the proposed development in the 2025 and 2030 future assessment year scenarios. In undertaking this assessment, this report has considered the following statistics:

- **Network Wide Model Statistics:** these statistics provide a strategic overview of the performance of the whole network. These statistics have been extracted for the whole modelled network to understand the wider network impacts across each of the modelled scenarios.
- **Journey Time Analysis:** these statistics provide analysis in terms of the impact on journey times across pre-defined routes across the network.
- **Junction Statistics:** these statistics provide detailed analysis of specific junctions across the modelled network.

7.3 Conclusion

Based on the work undertaken, it is considered that the proposed development is unlikely to be satisfactorily accommodated on the local highway network in both the 2025 and 2030 future assessment year scenarios and the residual cumulative impacts of the proposed development could potentially be considered to be severe within the context of Paragraph 109 of the NPPF.

7.4 Recommendation

Notwithstanding the above conclusion, it is considered that the assessment undertaken to date is particularly robust for the following two reasons:

- The trip generation assumes that the majority of employees (82%) will drive to the site based on existing travel trends.
- The assessment does not account for the STDC Transport Strategy. Once developed, this will implement measures to substantially reduce the 82% commuter car mode share percentage and reduce the volume of traffic generated by the proposed development. The strategy will develop a delivery plan of interventions to meet the outcomes, which is expected to include, amongst other things, measures such as limiting car parking provision, introducing mobility hubs, providing high quality cycle parking and improving public transport provision.

On the basis of the conclusions made in this report, it is recommended that further discussions are held with Middlesbrough Council in order to discuss the findings of the modelling exercise. With this in mind, it is considered that there are two key considerations:

- Modelling the effects of the implementation of the STDC Transport Strategy to consider the likely benefits of reducing the commuter mode share and the effect that this could have on the future operation of the network.
- Developing and modelling potential physical highway improvement options in order to mitigate the residual impacts of the proposed development, where possible.

Appendix A

Indicative Site Plan

Appendix B

Vehicle Trip Distribution

Middlesbrough Transport Model
 Aimsun Model Traffic Distribution

Vehicle Trip Distribution: Land at South Tees Development Corporation

Output Area (OA) or Workplace Zone (WZ)	Centroid Name	Total
E00060725	046	0.1%
E00060704	050	0.1%
E00060709	056	0.1%
E00060712	058	0.1%
E00060713	060	0.1%
E00060708	062	0.1%
E00060717	064	0.1%
E00060720	067	0.1%
E00060716	068	0.1%
E00060721	071	0.1%
E00060995	083	0.1%
E00060984	090	0.1%
E00060659	093	0.1%
E00060660	094	0.1%
E00060662	096	0.1%
E00060664	097	0.1%
E00060667	098	0.1%
E00060931	099	0.1%
E00060929	100	0.1%
E00060933	101	0.1%
E00060932	102	0.1%
E00060928	103	0.1%
E00060920	104	0.1%
E00060916	105	0.1%
E00060930	106	0.1%
E00060927	107	0.1%
E00060926	108	0.1%
E00060800	110	0.1%
E00060798	112	0.1%
E00174114	113	0.1%
E00174115	114	0.1%
E00060799	115	0.1%
E00060825	118	0.1%
E00060828	121	0.1%
E00060826	122	0.1%
E00060906	126	0.1%
E00060907	128	0.1%
E00060908	129	0.2%
E00060914	131	0.1%
E00060901	135	0.1%
E00060900	136	0.1%
E00060952	137	0.1%
E00060948	138	0.1%
E00060904	139	0.1%
E00060954	145	0.1%
E00060940	146	0.1%
E00060941	147	0.1%
E00060949	148	0.1%
E00060939	149	0.2%
E00060944	150	0.1%
E00060942	151	0.1%
E00060943	152	0.1%
E00060945	153	0.1%
E00060935	154	0.1%
E00060937	156	0.1%
E00060936	158	0.1%
E00060595	160	0.1%
E00060605	161	0.1%
E00060604	162	0.1%
E00060597	163	0.1%
E00060603	164	0.1%
E00060612	165	0.1%
E00060611	166	0.1%
E00060965	168	0.1%
E00060966	169	0.1%
E00060979	172	0.2%
E00060976	173	0.1%
E00060911	174	0.1%
E00060897	177	0.1%
E00060913	178	0.1%
E00060811	187	0.1%
E00060819	189	25.4%
E00060971	192	0.3%
E00060967	193	0.5%
E00060599	194	0.2%
E00060601	195	0.1%
E00165819	218	0.1%
E00060894	220	0.1%
E00060885	222	0.1%
E00060881	224	0.1%
E00060895	225	0.1%
E00060890	226	0.1%
E00060893	227	0.1%
E00060889	228	0.1%
E00060883	230	0.1%
E00060886	232	0.2%
E00060884	236	0.1%
E00060851	240	0.1%
E00060849	241	0.1%
E00060775	243	0.1%
E00060850	244	0.1%
E00060853	245	0.1%
E00060852	246	0.2%
E00060863	249	0.1%
E00060861	253	0.1%
E00060854	254	0.1%
E00060857	256	0.1%
E00060859	259	0.1%
E00060673	261	0.1%
E00060677	262	0.1%
E00060672	264	0.1%
E00060679	266	0.1%
E00060681	267	0.2%
E00060685	268	0.1%
E00060687	269	0.1%
E00060684	272	0.1%
E00060676	273	0.2%
E00060675	274	0.2%
E00060678	275	0.2%
E00060671	278	0.1%
E00060696	280	0.1%
E00060692	281	0.1%
E00060697	284	0.1%
E00060670	285	0.2%
E00060698	286	0.1%
E00060690	287	0.1%
E00060834	290	0.1%
E00060842	291	0.1%
E00060846	292	0.1%
E00060835	293	0.1%
E00060833	294	0.1%
E00060845	296	0.1%
E00060843	297	0.1%
E00060836	298	0.1%
E00060838	299	0.1%
E00060839	300	0.2%
E00060680	309	0.2%
E00140661	310	1.0%
E00060963	315	0.1%
E00060729	320	0.1%

E00060740	321	0.1%
E00060748	329	0.1%
E00060959	334	0.1%
E00060958	335	0.1%
E00060737	339	0.2%
E00060734	341	0.1%
E00060741	345	0.1%
E00060731	347	0.1%
E00060730	348	0.1%
E00060961	349	0.1%
E00060643	357	0.1%
E00060640	359	0.1%
E00060634	364	0.1%
E00060632	365	0.1%
E00060650	370	0.1%
E00060641	373	0.1%
E00060642	375	0.1%
E00060756	376	0.1%
E00060755	377	0.1%
E00060754	378	0.1%
E00060752	380	0.1%
E00060751	381	0.1%
E00060750	382	0.1%
E00060757	383	0.1%
E00060759	384	0.1%
E00060760	385	0.1%
E00060758	387	0.1%
E00060761	390	0.1%
E00060763	396	0.1%
E00060576	400	0.1%
E00060577	403	0.1%
E00060795	405	0.1%
E00060797	406	0.1%
E00060796	410	0.1%
E00060789	412	0.1%
E00060556	415	0.1%
E00060565	418	0.1%
E00060559	421	0.1%
E00060573	422	0.1%
E00060557	424	0.1%
E00060560	425	0.1%
E00060563	427	0.1%
E00060569	428	0.1%
E00060570	431	0.1%
E00060591	437	0.1%
E00060590	439	0.1%
E00060586	443	0.1%
E00060804	445	0.1%
E00060806	446	0.1%
E00060808	447	0.1%
E00060807	450	0.1%
E00060809	453	0.1%
E00060803	454	0.1%
E00060924	455	0.1%
E00060918	457	0.1%
E00060802	458	0.1%
E00060917	460	0.1%
E00060922	461	0.1%
E00174109	462	0.2%
E00060652	463	0.1%
E00060651	466	0.1%
E00060623	481	0.1%
E00060620	484	0.1%
E00060627	488	0.1%
E00060615	490	0.1%
E00060665	492	0.2%
E00060666	493	0.1%
E00060622	498	0.1%
E00060767	499	0.2%
E00060768	500	0.2%
E00060769	501	0.1%
E00060772	502	0.2%
E00060774	505	0.1%
E00060840	510	0.1%
E00060783	519	0.1%
E00060781	520	0.1%
E00060777	525	0.1%
E00060841	526	0.1%
E00061710	529	2.6%
E00061731	531	5.2%
E00060579	533	8.3%
E00060581	536	0.1%
E00060580	538	0.1%
E00174165	542	4.2%
E00061928	543	6.4%
E00060832	555	0.1%
E00060829	557	0.1%
E00061249	560	25.2%
E00060583	564	0.1%
		100.0%

Appendix C

Screening Assessment Results

Appendix D1

Network Statistics - Subnetwork 1

Land at South Tees Development Corporation

Network Statistics_Subnetwork 1: Middlesbrough Central

Statistic	Units	AM Peak Period (07:30 - 09:30)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	101	107	109	113	119
Travel Time	h	1,829	1,993	2,054	2,179	2,347
Travel Time (Vehicles Inside)	h	33	36	38	42	51
Travel Time (Waiting Out)	h	0	1	6	6	9
Delay	sec/km	42	48	50	54	61
Flow	veh/h	15,923	17,165	17,355	17,956	18,308
Speed	km/h	46	45	44	43	42
Stop Time	sec/km	33	38	40	43	50
Density	veh/km	6	6	6	7	7
Mean Queue	veh	214	250	268	296	352
Mean Virtual Queue	veh	5	9	18	19	29
Waiting Time in Virtual Queue	sec	1	2	3	3	4
Total Statistics						
Total Travelled Time	h	1,829	1,993	2,054	2,179	2,347
Total Travelled Distance	km	82,591	86,105	87,257	89,933	92,264
Average travel time per vehicle	s/veh	207	209	213	218	231
Total Waiting Time in Virtual Queue	h	5	8	14	14	21
Additional waiting time in Virtual Queue	h	8	14	26	34	58
Total travel time including virtual queue	h	1,842	2,015	2,094	2,227	2,426
Total Queue	veh	219	259	286	314	381
Throughput						
Vehicles Out	veh	31,846	34,329	34,710	35,913	36,616
Vehicles In	veh	812	894	903	962	1,028
Vehicles Waiting to Enter	veh	8	16	35	46	79
Total	veh	32,666	35,239	35,648	36,920	37,722
Vehicles In and Waiting to Enter	veh	820	910	938	1,008	1,107

Land at South Tees Development Corporation

Network Statistics_Subnetwork 1: Middlesbrough Central

Statistic	Units	Inter Peak Period (12:00 - 14:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	113	125	127	129	139
Travel Time	h	1,539	1,789	1,841	1,926	2,182
Travel Time (Vehicles Inside)	h	28	39	48	49	100
Travel Time (Waiting Out)	h	0	3	14	12	21
Delay	sec/km	53	65	67	69	79
Flow	veh/h	13,895	15,266	15,423	16,038	16,497
Speed	km/h	44	42	42	42	41
Stop Time	sec/km	44	54	57	59	69
Density	veh/km	5	6	6	6	7
Mean Queue	veh	200	261	278	289	384
Mean Virtual Queue	veh	8	24	39	32	51
Waiting Time in Virtual Queue	sec	2	5	7	5	8
Total Statistics						
Total Travelled Time	h	1,539	1,789	1,841	1,926	2,182
Total Travelled Distance	km	66,499	71,885	72,880	76,020	79,353
Average travel time per vehicle	s/veh	199	211	215	216	238
Total Waiting Time in Virtual Queue	h	8	21	29	23	35
Additional waiting time in Virtual Queue	h	9	36	57	45	64
Total travel time including virtual queue	h	1,556	1,846	1,927	1,994	2,280
Total Queue	veh	207	285	317	322	435
Throughput						
Vehicles Out	veh	27,789	30,531	30,846	32,076	32,995
Vehicles In	veh	769	919	975	981	1,276
Vehicles Waiting to Enter	veh	9	40	76	63	93
Total	veh	28,568	31,491	31,896	33,119	34,363
Vehicles In and Waiting to Enter	veh	779	959	1,051	1,044	1,369

Land at South Tees Development Corporation

Network Statistics_Subnetwork 1: Middlesbrough Central

Statistic	Units	PM Peak Period (16:00 - 18:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	116	129	131	130	140
Travel Time	h	2,247	2,706	2,800	2,863	3,238
Travel Time (Vehicles Inside)	h	32	57	86	66	119
Travel Time (Waiting Out)	h	0	30	14	26	34
Delay	sec/km	56	69	71	71	81
Flow	veh/h	18,536	20,027	20,074	20,865	21,368
Speed	km/h	43	39	38	40	37
Stop Time	sec/km	45	56	57	58	65
Density	veh/km	7	9	9	9	10
Mean Queue	veh	283	413	446	456	560
Mean Virtual Queue	veh	8	55	33	63	97
Waiting Time in Virtual Queue	sec	1	6	4	8	11
Total Statistics						
Total Travelled Time	h	2,247	2,706	2,800	2,863	3,238
Total Travelled Distance	km	93,788	98,126	98,622	103,193	106,579
Average travel time per vehicle	s/veh	218	243	251	247	273
Total Waiting Time in Virtual Queue	h	8	36	23	44	68
Additional waiting time in Virtual Queue	h	11	62	43	85	130
Total travel time including virtual queue	h	2,265	2,804	2,866	2,991	3,436
Total Queue	veh	291	468	479	520	656
Throughput						
Vehicles Out	veh	37,072	40,053	40,148	41,729	42,736
Vehicles In	veh	872	1,112	1,253	1,195	1,486
Vehicles Waiting to Enter	veh	11	94	62	122	185
Total	veh	37,955	41,259	41,463	43,046	44,407
Vehicles In and Waiting to Enter	veh	883	1,206	1,315	1,317	1,671

Appendix D2

Network Statistics - Subnetwork 2

Land at South Tees Development Corporation

Network Statistics_Subnetwork 2: A171 Cargo Fleet Lane Corridor

Statistic	Units	AM Peak Period (07:30 - 09:30)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	113	150	157	160	240
Travel Time	h	721	949	1,015	1,034	1,597
Travel Time (Vehicles Inside)	h	10	97	113	114	429
Travel Time (Waiting Out)	h	0	520	656	775	1,361
Delay	sec/km	53	90	97	100	181
Flow	veh/h	9,513	9,894	9,976	10,193	9,860
Speed	km/h	41	35	34	33	29
Stop Time	sec/km	42	75	82	85	163
Density	veh/km	9	12	12	13	23
Mean Queue	veh	107	190	213	218	538
Mean Virtual Queue	veh	11	620	703	809	1,217
Waiting Time in Virtual Queue	sec	4	117	120	133	146
Total Statistics						
Total Travelled Time	h	721	949	1,015	1,034	1,597
Total Travelled Distance	km	24,522	25,659	26,118	26,518	26,264
Average travel time per vehicle	s/veh	136	173	183	183	292
Total Waiting Time in Virtual Queue	h	11	323	332	378	400
Additional waiting time in Virtual Queue	h	0	515	540	626	800
Total travel time including virtual queue	h	732	1,786	1,886	2,037	2,798
Total Queue	veh	117	810	916	1,027	1,755
Throughput						
Vehicles Out	veh	19,025	19,787	19,952	20,386	19,719
Vehicles In	veh	301	418	462	449	1,141
Vehicles Waiting to Enter	veh	0	988	1,144	1,340	2,434
Total	veh	19,326	21,193	21,557	22,175	23,295
Vehicles In and Waiting to Enter	veh	301	1,406	1,606	1,789	3,576

Land at South Tees Development Corporation

Network Statistics_Subnetwork 2: A171 Cargo Fleet Lane Corridor

Statistic	Units	Inter Peak Period (12:00 - 14:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	96	129	152	138	266
Travel Time	h	554	780	961	875	1,735
Travel Time (Vehicles Inside)	h	7	28	100	45	367
Travel Time (Waiting Out)	h	0	0	28	1	269
Delay	sec/km	36	68	90	77	205
Flow	veh/h	8,661	9,443	9,519	9,733	9,395
Speed	km/h	43	37	34	36	26
Stop Time	sec/km	26	54	76	63	186
Density	veh/km	7	9	12	11	24
Mean Queue	veh	62	132	213	164	610
Mean Virtual Queue	veh	0	1	56	6	384
Waiting Time in Virtual Queue	sec	0	0	9	2	66
Total Statistics						
Total Travelled Time	h	554	780	961	875	1,735
Total Travelled Distance	km	21,698	23,399	24,181	24,584	24,609
Average travel time per vehicle	s/veh	115	149	182	162	332
Total Waiting Time in Virtual Queue	h	0	1	25	5	171
Additional waiting time in Virtual Queue	h	0	2	121	14	591
Total travel time including virtual queue	h	555	783	1,107	894	2,498
Total Queue	veh	62	133	268	170	994
Throughput						
Vehicles Out	veh	17,322	18,887	19,038	19,467	18,790
Vehicles In	veh	259	441	555	513	1,456
Vehicles Waiting to Enter	veh	0	2	274	18	1,324
Total	veh	17,581	19,330	19,867	19,997	21,570
Vehicles In and Waiting to Enter	veh	259	443	828	531	2,780

Land at South Tees Development Corporation

Network Statistics_Subnetwork 2: A171 Cargo Fleet Lane Corridor

Statistic	Units	PM Peak Period (16:00 - 18:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	120	205	261	242	353
Travel Time	h	846	1,508	1,915	1,830	2,563
Travel Time (Vehicles Inside)	h	13	154	357	220	778
Travel Time (Waiting Out)	h	4	92	648	75	1,160
Delay	sec/km	61	145	200	182	292
Flow	veh/h	10,690	11,015	10,600	11,343	10,363
Speed	km/h	40	28	23	23	18
Stop Time	sec/km	49	125	179	159	265
Density	veh/km	10	19	25	24	37
Mean Queue	veh	138	407	618	560	1,016
Mean Virtual Queue	veh	22	273	837	252	1,274
Waiting Time in Virtual Queue	sec	6	62	135	56	171
Total Statistics						
Total Travelled Time	h	846	1,508	1,915	1,830	2,563
Total Travelled Distance	km	27,107	27,954	27,082	28,941	26,658
Average travel time per vehicle	s/veh	142	246	325	290	445
Total Waiting Time in Virtual Queue	h	19	189	398	178	493
Additional waiting time in Virtual Queue	h	14	387	865	408	1,251
Total travel time including virtual queue	h	879	2,084	3,178	2,416	4,307
Total Queue	veh	160	680	1,455	812	2,290
Throughput						
Vehicles Out	veh	21,381	22,030	21,200	22,685	20,726
Vehicles In	veh	311	804	1,083	1,212	2,040
Vehicles Waiting to Enter	veh	16	558	1,818	579	3,236
Total	veh	21,708	23,392	24,101	24,476	26,002
Vehicles In and Waiting to Enter	veh	327	1,362	2,901	1,791	5,276

Appendix D3

Network Statistics - Subnetwork 4

Land at South Tees Development Corporation

Network Statistics_Subnetwork 4: Ormesby Road Corridor

Statistic	Units	AM Peak Period (07:30 - 09:30)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	122	132	138	159	163
Travel Time	h	524	631	667	787	820
Travel Time (Vehicles Inside)	h	6	13	16	39	50
Travel Time (Waiting Out)	h	0	2	2	10	16
Delay	sec/km	57	66	72	94	97
Flow	veh/h	7,017	7,799	7,805	8,003	8,091
Speed	km/h	38	36	35	34	33
Stop Time	sec/km	45	54	59	80	83
Density	veh/km	9	10	11	14	14
Mean Queue	veh	76	107	124	182	196
Mean Virtual Queue	veh	10	18	17	42	59
Waiting Time in Virtual Queue	sec	5	7	7	15	20
Total Statistics						
Total Travelled Time	h	524	631	667	787	820
Total Travelled Distance	km	16,859	18,492	18,486	18,865	19,166
Average travel time per vehicle	s/veh	134	146	154	177	183
Total Waiting Time in Virtual Queue	h	10	16	14	34	46
Additional waiting time in Virtual Queue	h	0	23	21	71	92
Total travel time including virtual queue	h	534	669	702	892	958
Total Queue	veh	86	125	141	224	255
Throughput						
Vehicles Out	veh	14,033	15,597	15,610	16,006	16,181
Vehicles In	veh	220	294	317	439	471
Vehicles Waiting to Enter	veh	0	26	24	89	118
Total	veh	14,253	15,917	15,951	16,534	16,770
Vehicles In and Waiting to Enter	veh	220	320	341	528	589

Land at South Tees Development Corporation

Network Statistics_Subnetwork 4: Ormesby Road Corridor

Statistic	Units	Inter Peak Period (12:00 - 14:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	143	151	157	173	179
Travel Time	h	482	532	540	662	688
Travel Time (Vehicles Inside)	h	9	9	14	19	35
Travel Time (Waiting Out)	h	3	1	11	9	87
Delay	sec/km	76	84	90	107	113
Flow	veh/h	6,835	7,058	7,102	7,419	7,529
Speed	km/h	37	36	36	34	33
Stop Time	sec/km	64	71	77	93	99
Density	veh/km	8	9	9	11	12
Mean Queue	veh	65	78	82	125	137
Mean Virtual Queue	veh	11	11	29	43	93
Waiting Time in Virtual Queue	sec	4	5	11	18	20
Total Statistics						
Total Travelled Time	h	482	532	540	662	688
Total Travelled Distance	km	16,223	17,007	17,104	17,959	18,346
Average travel time per vehicle	s/veh	127	136	137	161	165
Total Waiting Time in Virtual Queue	h	8	10	21	37	41
Additional waiting time in Virtual Queue	h	13	9	33	39	85
Total travel time including virtual queue	h	503	552	594	737	815
Total Queue	veh	76	89	111	168	230
Throughput						
Vehicles Out	veh	13,670	14,116	14,205	14,838	15,058
Vehicles In	veh	231	249	280	329	373
Vehicles Waiting to Enter	veh	16	10	45	45	190
Total	veh	13,917	14,376	14,530	15,211	15,622
Vehicles In and Waiting to Enter	veh	246	260	325	373	563

Land at South Tees Development Corporation

Network Statistics_Subnetwork 4: Ormesby Road Corridor

Statistic	Units	PM Peak Period (16:00 - 18:00)				
		2019 Base	2025 Do Minimum	2025 Do Something	2030 Do Minimum	2030 Do Something
Summary Statistics						
Travel Time	sec/km	166	177	179	198	197
Travel Time	h	658	909	932	993	1,059
Travel Time (Vehicles Inside)	h	18	80	79	218	128
Travel Time (Waiting Out)	h	9	83	72	285	177
Delay	sec/km	100	110	112	131	131
Flow	veh/h	7,810	8,061	8,099	7,943	8,235
Speed	km/h	35	31	30	29	29
Stop Time	sec/km	86	94	97	115	114
Density	veh/km	11	15	16	19	18
Mean Queue	veh	124	231	241	323	304
Mean Virtual Queue	veh	29	157	149	317	234
Waiting Time in Virtual Queue	sec	10	42	41	57	51
Total Statistics						
Total Travelled Time	h	658	909	932	993	1,059
Total Travelled Distance	km	18,112	18,746	18,858	18,397	19,333
Average travel time per vehicle	s/veh	152	203	207	225	232
Total Waiting Time in Virtual Queue	h	22	93	93	127	116
Additional waiting time in Virtual Queue	h	37	214	215	333	309
Total travel time including virtual queue	h	717	1,217	1,240	1,452	1,485
Total Queue	veh	153	388	391	639	538
Throughput						
Vehicles Out	veh	15,620	16,122	16,198	15,886	16,469
Vehicles In	veh	304	479	489	747	648
Vehicles Waiting to Enter	veh	49	359	347	832	623
Total	veh	15,973	16,959	17,034	17,465	17,740
Vehicles In and Waiting to Enter	veh	353	838	836	1,579	1,271

Appendix E

Junction Statistics - Microscopic Model

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	144.4	144.4	150.0	128.4	160.0	176.4	153.6	124.0	614.8	1,181.2
Delay	1.9	4.1	4.1	4.0	4.1	4.3	5.8	3.5	4.1	4.0
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	1.9	4.2	4.2	4.1	4.2	4.4	5.8	3.6	4.2	4.1
Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Max Queue	4.2	3.9	3.7	4.2	4.4	4.2	5.0	3.5	4.1	4.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	1.0	1.2	1.0	1.0	1.1	1.2	1.0	1.1	1.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Total Max Queue	4.2	4.9	4.9	5.2	5.4	5.3	6.2	4.5	5.2	5.1
Speed	48.9	45.5	45.3	43.4	43.7	42.8	41.1	45.1	43.8	44.4

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	466.0	578.8	487.2	552.0	532.8	494.0	424.4	288.0	2,066.0	3,823.2
Delay	1.1	1.2	1.4	1.5	1.4	1.6	1.4	0.9	1.5	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.2	1.4	1.5	1.4	1.6	1.4	0.9	1.5	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.9	0.9	1.5	1.0	1.1	1.4	1.0	0.2	1.3	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.9	1.5	1.0	1.1	1.4	1.0	0.2	1.3	1.0
Speed	46.2	46.7	43.9	43.1	43.5	43.3	44.7	47.3	43.4	44.7

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	110.4	278.4	236.8	362.4	310.8	257.6	331.2	273.6	1,167.6	2,161.2
Delay	0.3	0.4	0.6	1.5	1.1	1.1	0.9	0.6	1.1	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.4	0.6	1.5	1.1	1.1	0.9	0.6	1.1	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.2	0.4	1.0	0.8	0.5	1.0	0.2	0.7	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.2	0.4	1.0	0.8	0.5	1.0	0.2	0.7	0.5
Speed	51.8	51.2	49.7	44.9	45.8	47.6	48.2	50.4	47.0	48.5

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	120.4	112.8	130.0	149.2	141.6	135.2	133.6	111.6	556.0	1,034.4
Delay	0.3	0.3	0.4	0.3	0.4	0.5	0.3	0.4	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.3	0.4	0.3	0.4	0.5	0.3	0.4	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.1
Speed	48.4	49.6	47.8	47.9	47.5	47.8	48.7	47.4	47.8	48.1

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	177.2	194.8	192.0	178.0	212.4	192.0	159.2	207.2	774.4	1,512.8
Delay	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.7	0.6	0.6
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.3	0.2	0.2
Speed	49.6	50.1	48.4	49.2	49.4	49.1	49.7	48.8	49.0	49.3

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	374.4	309.2	355.2	374.0	382.8	309.6	286.4	291.6	1,421.6	2,683.2
Delay	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.2	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.0	0.2	0.2	0.4	0.0	0.0	0.0	0.2	0.1
Speed	52.4	52.6	52.1	52.2	51.5	52.4	52.4	52.4	52.0	52.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	180.4	133.6	183.2	164.4	251.2	256.0	148.8	116.8	854.8	1,434.4
Delay	3.4	4.0	4.1	4.4	5.2	4.4	3.5	4.4	4.5	4.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1
Total Delay	3.4	4.1	4.2	4.4	5.3	4.5	3.6	4.4	4.6	4.3
Mean Queue	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2
Max Queue	4.6	3.8	4.4	4.6	5.1	5.5	3.7	4.2	4.9	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.1	1.1	1.0	1.1	1.0	1.0	1.1	1.1	1.1
Total Mean Queue	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.2
Total Max Queue	5.7	4.9	5.5	5.6	6.2	6.5	4.7	5.3	6.0	5.6
Speed	44.0	42.8	40.5	40.4	35.1	37.3	41.5	43.9	38.3	40.4

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	137.2	148.8	152.4	158.8	163.2	160.0	114.8	85.6	634.4	1,120.8
Delay	0.5	0.3	0.5	0.7	0.6	0.5	0.3	0.3	0.6	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.3	0.5	0.7	0.6	0.5	0.3	0.3	0.6	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.1
Speed	50.3	50.7	49.9	49.0	50.0	49.2	50.8	51.0	49.5	50.0

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	491.6	582.8	715.6	534.4	1,063.6	701.2	633.6	458.8	3,014.8	5,181.6
Delay	0.4	0.5	0.5	0.4	0.6	0.5	0.4	0.3	0.5	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.5	0.4	0.6	0.5	0.4	0.3	0.5	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.3	0.4	0.4	1.4	0.5	0.0	0.0	0.7	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.3	0.4	0.4	1.4	0.5	0.0	0.0	0.7	0.4
Speed	51.9	51.6	51.3	51.9	50.5	50.6	51.9	52.3	51.1	51.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	153.2	169.2	168.0	154.8	165.6	176.4	172.4	154.8	664.8	1,314.4
Delay	2.6	4.4	4.0	4.3	3.8	4.8	4.1	3.4	4.2	4.0
Delay Virtual Queue	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	2.6	4.4	4.1	4.4	3.9	4.9	4.1	3.5	4.3	4.0
Mean Queue	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Max Queue	3.7	3.9	4.5	4.0	4.0	4.8	4.0	3.8	4.3	4.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.1	1.0	1.1	1.0	1.0	1.3	1.1	1.0	1.1	1.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Total Max Queue	3.8	4.9	5.6	5.0	5.0	6.1	5.1	4.8	5.4	5.1
Speed	46.9	42.5	43.1	42.8	44.0	41.4	43.8	44.6	42.8	43.5

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	516.0	606.8	492.0	528.4	549.2	518.4	483.2	395.2	2,088.0	4,089.2
Delay	1.4	2.2	2.8	1.8	1.8	3.3	1.8	1.5	2.4	2.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	2.2	2.8	1.8	1.8	3.3	1.8	1.5	2.4	2.1
Mean Queue	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.1
Max Queue	1.6	3.5	4.4	2.3	2.4	5.9	1.8	1.3	3.8	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.1	0.1
Total Max Queue	1.6	3.5	4.4	2.3	2.4	5.9	1.8	1.3	3.8	3.0
Speed	45.3	42.8	41.1	43.7	43.6	40.9	43.2	44.3	42.3	43.0

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	185.6	295.2	315.2	381.2	342.4	322.8	362.0	312.4	1,361.6	2,516.8
Delay	0.6	0.8	0.7	0.7	0.9	0.9	1.0	0.7	0.8	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.8	0.7	0.7	0.9	0.9	1.0	0.7	0.8	0.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.6	0.6	0.5	0.7	0.7	0.9	0.5	0.6	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.6	0.6	0.5	0.7	0.7	0.9	0.5	0.6	0.6
Speed	51.2	49.6	50.3	49.5	48.3	48.8	48.7	49.9	49.2	49.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	149.2	144.4	138.4	177.2	157.6	147.6	142.8	184.8	620.8	1,242.0
Delay	0.5	0.4	0.4	0.6	0.4	0.4	0.6	0.6	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.4	0.4	0.6	0.4	0.4	0.6	0.6	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.2	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.2	0.1	0.1
Speed	46.6	47.9	48.3	45.7	47.2	47.0	46.8	46.1	47.1	47.0

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	196.8	225.6	216.0	212.8	230.0	209.2	194.4	225.2	868.0	1,710.0
Delay	0.7	0.7	0.6	0.7	0.8	0.9	0.6	1.1	0.8	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.7	0.6	0.7	0.8	0.9	0.6	1.1	0.8	0.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.1	0.2	0.4	0.5	0.6	0.0	0.5	0.4	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.1	0.2	0.4	0.5	0.6	0.0	0.5	0.4	0.3
Speed	48.7	48.9	49.2	47.6	47.7	48.3	49.6	46.5	48.2	48.3

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	362.8	348.4	354.8	383.6	364.4	328.0	314.0	312.0	1,430.8	2,768.0
Delay	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.3	0.4	0.4	0.3	0.3	0.3	0.4	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.2	0.1
Speed	52.5	52.6	52.0	51.7	52.5	52.5	52.4	52.1	52.2	52.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	226.0	192.0	209.6	206.0	221.2	214.0	213.2	195.2	850.8	1,677.2
Delay	3.1	5.7	4.7	3.8	6.1	5.1	4.6	4.1	4.9	4.7
Delay Virtual Queue	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1
Total Delay	3.2	5.8	4.8	3.8	6.1	5.2	4.7	4.1	5.0	4.7
Mean Queue	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3
Max Queue	5.2	5.1	5.1	4.5	5.3	4.8	5.1	4.6	4.9	5.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.1	1.0	1.1	1.0	1.1	1.0	1.3	1.1	1.1
Total Mean Queue	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3
Total Max Queue	6.3	6.2	6.1	5.6	6.3	5.9	6.1	5.9	6.0	6.0
Speed	42.5	38.3	38.5	41.9	32.2	34.9	36.8	42.7	36.9	38.3

Arm Reference:	B
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	146.4	168.8	153.2	148.8	182.4	161.2	148.8	127.6	645.6	1,237.2
Delay	0.6	0.7	0.9	0.9	1.2	0.7	0.7	0.5	0.9	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.7	0.9	0.9	1.2	0.7	0.7	0.5	0.9	0.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.2	0.3	0.2	0.6	0.0	0.2	0.1	0.3	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.2	0.3	0.2	0.6	0.0	0.2	0.1	0.3	0.2
Speed	49.4	48.6	47.3	47.8	45.6	49.4	48.6	49.0	47.5	48.2

Arm Reference:	C
Name	Riverside Park Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	582.0	691.6	714.4	620.0	1,188.0	748.8	745.2	588.4	3,271.2	5,878.4
Delay	0.4	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.6	0.5	0.5	0.6	0.5	0.5	0.6	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.8	0.5	0.4	0.7	0.3	0.2	0.8	0.5	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	0.8	0.5	0.4	0.7	0.3	0.2	0.8	0.5	0.5
Speed	52.0	50.6	51.5	51.4	50.6	51.1	51.8	51.4	51.1	51.3

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	226.8	212.4	262.8	273.6	240.0	255.6	254.8	194.0	1,032.0	1,920.0
Delay	3.1	3.6	4.8	5.4	5.3	3.8	5.6	4.0	4.8	4.5
Delay Virtual Queue	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Total Delay	3.1	3.6	4.9	5.4	5.4	3.9	5.6	4.1	4.9	4.6
Mean Queue	0.1	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3
Max Queue	5.3	4.5	6.0	5.8	6.0	4.9	6.1	4.8	5.7	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.1	1.1	1.2	1.1	1.1	1.1	1.2	1.0	1.1	1.0
Total Mean Queue	0.1	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3
Total Max Queue	5.4	5.6	7.2	6.9	7.1	6.0	7.3	5.8	6.8	6.5
Speed	41.7	39.9	36.8	33.5	36.3	36.9	36.8	41.0	35.9	37.7

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	603.6	660.4	646.8	664.8	681.6	657.6	643.6	482.4	2,650.8	5,040.8
Delay	2.9	3.2	5.7	5.9	5.1	4.2	4.6	1.6	5.2	4.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	3.2	5.7	5.9	5.1	4.2	4.6	1.6	5.2	4.3
Mean Queue	0.1	0.2	0.5	0.6	0.4	0.3	0.3	0.0	0.4	0.3
Max Queue	5.3	5.3	8.8	10.1	9.8	6.5	7.8	1.9	8.8	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.5	0.6	0.4	0.3	0.3	0.0	0.4	0.3
Total Max Queue	5.3	5.3	8.8	10.1	9.8	6.5	7.8	1.9	8.8	7.1
Speed	39.0	39.6	38.6	38.2	36.8	38.5	37.2	44.0	38.0	38.9

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	267.6	424.0	462.0	523.2	476.4	477.2	464.8	392.8	1,938.8	3,488.0
Delay	0.8	0.9	0.9	1.0	0.9	1.2	1.3	0.7	1.0	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	0.9	1.0	0.9	1.2	1.3	0.7	1.0	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.8	1.0	1.7	0.9	1.6	1.8	0.6	1.3	1.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	0.8	1.0	1.7	0.9	1.6	1.8	0.6	1.3	1.1
Speed	49.8	49.0	49.2	48.0	48.4	47.6	46.7	50.0	48.3	48.6

2030 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	190.8	196.0	195.6	183.6	205.6	202.0	188.8	212.4	786.8	1,574.8
Delay	1.1	1.0	1.1	1.4	1.1	0.9	1.0	1.1	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.0	1.1	1.4	1.1	0.9	1.0	1.1	1.1	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.8	0.4	0.8	0.8	0.6	0.5	0.4	0.6	0.7	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.8	0.4	0.8	0.8	0.6	0.5	0.4	0.6	0.7	0.6
Speed	42.1	42.7	41.6	39.9	40.1	42.5	42.9	42.0	41.0	41.7

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	333.6	366.0	362.8	382.0	386.4	352.4	324.4	385.2	1,483.6	2,892.8
Delay	1.7	2.0	1.5	1.5	2.0	1.7	1.4	2.0	1.7	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	2.0	1.5	1.5	2.0	1.7	1.4	2.0	1.7	1.7
Mean Queue	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Max Queue	1.1	1.7	0.9	1.2	2.0	1.2	0.7	1.9	1.3	1.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Total Max Queue	1.1	1.7	0.9	1.2	2.0	1.2	0.7	1.9	1.3	1.3
Speed	43.8	42.8	44.8	43.9	43.5	44.4	44.3	42.7	44.2	43.8

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	552.0	552.4	554.0	561.6	541.6	520.0	495.2	474.8	2,177.2	4,251.6
Delay	0.4	0.4	0.5	0.6	0.5	0.4	0.5	0.6	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.4	0.5	0.6	0.5	0.4	0.5	0.6	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.5	0.5	0.9	0.3	0.3	0.4	0.7	0.5	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.5	0.5	0.9	0.3	0.3	0.4	0.7	0.5	0.5
Speed	51.7	51.8	51.4	50.5	51.6	51.8	51.6	51.0	51.3	51.4

2030 Do Minimum

J-01 J-01: Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	240.8	228.0	251.6	258.0	215.2	246.8	214.4	244.4	971.6	1,899.2
Delay	4.8	5.0	5.7	10.4	27.0	62.1	177.1	129.5	26.3	49.8
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.1	0.0	0.3	0.5	0.1	0.1
Total Delay	4.8	5.0	5.7	10.5	27.1	62.1	177.4	130.1	26.4	49.9
Mean Queue	0.3	0.3	0.3	0.6	2.1	5.3	10.1	6.3	2.1	3.0
Max Queue	5.6	4.9	5.9	6.5	9.6	16.2	19.0	15.7	9.6	10.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.0	1.0	1.2	1.2	1.0	1.4	1.2	1.1	1.1
Total Mean Queue	0.3	0.3	0.3	0.6	2.1	5.3	10.1	6.3	2.1	3.0
Total Max Queue	6.6	5.9	6.9	7.7	10.8	17.2	20.4	16.9	10.7	11.5
Speed	35.1	34.8	32.6	31.8	23.7	23.8	15.5	23.6	28.0	27.7

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	228.4	247.6	217.6	222.8	266.4	251.6	249.6	238.4	958.4	1,922.4
Delay	1.0	1.1	1.4	1.4	1.5	11.3	1.0	1.7	3.9	2.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.1	1.4	1.4	1.5	11.3	1.0	1.7	3.9	2.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.1
Max Queue	0.3	0.3	0.8	0.6	0.6	4.0	0.3	0.8	1.5	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.1
Total Max Queue	0.3	0.3	0.8	0.6	0.6	4.0	0.3	0.8	1.5	1.0
Speed	47.0	47.3	45.4	45.0	46.5	42.3	47.3	43.7	44.8	45.5

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	785.6	851.6	973.2	834.4	1,298.0	945.6	902.8	770.8	4,051.2	7,362.0
Delay	0.5	0.6	0.5	1.2	4.7	19.9	16.3	7.3	6.6	6.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.6	0.5	1.2	4.7	19.9	16.3	7.3	6.6	6.4
Mean Queue	0.0	0.0	0.0	0.1	1.2	3.7	2.5	0.8	1.3	1.1
Max Queue	0.9	0.8	0.8	2.3	10.2	13.7	12.0	7.8	6.8	6.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.1	1.2	3.7	2.5	0.8	1.3	1.1
Total Max Queue	0.9	0.8	0.8	2.3	10.2	13.7	12.0	7.8	6.8	6.1
Speed	51.5	50.7	51.1	50.4	47.9	42.9	42.5	46.8	48.1	48.0

2025 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	162.4	192.4	167.2	166.4	153.6	180.0	176.4	163.6	667.2	1,362.0
Delay	3.5	4.8	5.5	3.7	4.6	4.2	4.4	3.9	4.5	4.4
Delay Virtual Queue	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
Total Delay	3.5	4.8	5.6	3.8	4.7	4.2	4.5	4.0	4.6	4.4
Mean Queue	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Max Queue	5.1	4.8	4.9	4.3	4.3	4.4	4.8	4.4	4.5	4.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.1	1.2	1.1	1.0	1.1	1.0	1.1	1.1	1.1	1.0
Total Mean Queue	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Total Max Queue	5.2	6.0	6.0	5.3	5.4	5.4	5.9	5.5	5.5	5.6
Speed	45.7	43.1	42.4	42.4	42.2	43.8	42.3	44.3	42.7	43.2

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	498.0	569.6	502.0	503.2	527.2	507.2	516.4	390.4	2,039.6	4,014.0
Delay	1.6	2.3	2.5	1.9	2.1	2.1	2.5	1.5	2.1	2.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	2.3	2.5	1.9	2.1	2.1	2.5	1.5	2.1	2.1
Mean Queue	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Max Queue	2.5	2.6	4.9	2.2	2.3	3.2	4.2	1.6	3.2	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Total Max Queue	2.5	2.6	4.9	2.2	2.3	3.2	4.2	1.6	3.2	3.0
Speed	43.9	43.2	42.4	42.5	43.1	42.8	41.0	44.1	42.7	42.9

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	178.4	288.8	293.6	399.2	362.8	311.6	373.2	314.0	1,367.2	2,521.6
Delay	0.7	0.8	0.8	0.8	0.7	0.8	1.1	0.7	0.8	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.8	0.8	0.8	0.7	0.8	1.1	0.7	0.8	0.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.6	0.7	0.8	0.6	0.8	1.1	0.4	0.7	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.6	0.7	0.8	0.6	0.8	1.1	0.4	0.7	0.7
Speed	50.1	49.8	49.1	48.8	49.2	49.4	47.4	50.1	49.1	49.2

2025 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	146.4	142.4	155.6	156.4	161.6	161.6	144.4	154.0	635.2	1,222.4
Delay	0.6	0.5	0.5	0.4	0.5	0.7	0.6	0.5	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.5	0.5	0.4	0.5	0.7	0.6	0.5	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.1	0.2	0.1	0.2	0.2	0.1	0.0	0.2	0.2
Speed	45.8	47.6	47.9	47.3	46.2	45.7	47.1	48.0	46.8	46.9

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	189.6	200.4	233.2	220.4	245.6	197.6	178.8	211.6	896.8	1,677.2
Delay	0.8	0.6	0.7	0.6	0.9	0.8	0.6	0.9	0.8	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.6	0.7	0.6	0.9	0.8	0.6	0.9	0.8	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.0	0.3	0.3	0.3	0.4	0.1	0.5	0.3	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.0	0.3	0.3	0.3	0.4	0.1	0.5	0.3	0.3
Speed	47.6	49.9	48.2	48.1	47.2	48.1	48.8	47.7	47.9	48.2

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	364.8	350.0	377.2	379.2	384.4	350.0	329.2	267.2	1,490.8	2,802.0
Delay	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.0	0.2	0.3	0.1	0.0	0.3	0.2	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.0	0.2	0.3	0.1	0.0	0.3	0.2	0.2	0.2
Speed	52.6	52.4	51.8	51.5	51.7	52.1	51.9	51.7	51.8	51.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	197.6	198.0	222.4	232.4	215.2	220.8	232.4	193.2	890.8	1,712.0
Delay	4.3	4.7	4.2	3.6	7.1	4.7	3.8	3.8	4.9	4.6
Delay Virtual Queue	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Total Delay	4.4	4.8	4.3	3.7	7.1	4.8	3.9	3.8	5.0	4.6
Mean Queue	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3
Max Queue	5.2	4.7	5.5	4.7	5.7	5.2	4.7	4.5	5.3	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.0	1.1	1.1
Total Mean Queue	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.3	0.3
Total Max Queue	6.2	5.8	6.5	5.8	6.7	6.3	5.8	5.5	6.3	6.1
Speed	40.8	40.7	38.9	40.5	32.0	39.1	37.0	42.5	37.6	38.8

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	156.8	171.2	165.6	147.6	181.2	160.8	155.2	145.2	655.2	1,283.6
Delay	0.6	0.8	0.9	0.8	0.6	0.7	0.7	0.7	0.8	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.8	0.9	0.8	0.6	0.7	0.7	0.7	0.8	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
Speed	50.3	48.1	48.4	49.3	48.9	49.1	49.0	48.9	48.9	49.0

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	554.8	640.0	708.8	594.8	1,206.4	710.4	744.4	570.4	3,220.4	5,730.0
Delay	0.4	0.5	0.4	0.5	0.6	0.4	0.5	0.5	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.4	0.5	0.6	0.4	0.5	0.5	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.7	0.3	0.7	0.7	0.3	0.2	0.5	0.5	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.7	0.3	0.7	0.7	0.3	0.2	0.5	0.5	0.5
Speed	51.9	51.3	51.6	51.8	50.5	51.5	51.4	51.6	51.3	51.4

2030 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	212.4	221.6	262.8	254.8	255.6	252.4	249.2	210.4	1,025.6	1,919.2
Delay	2.5	4.5	4.8	4.6	5.0	4.4	4.9	3.6	4.7	4.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Total Delay	2.5	4.6	4.9	4.6	5.1	4.5	5.0	3.6	4.8	4.4
Mean Queue	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Max Queue	5.3	5.3	6.0	5.5	5.6	5.3	6.3	3.9	5.6	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	1.1	1.0	1.0	1.2	1.3	1.1	1.1	1.1	1.0
Total Mean Queue	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Total Max Queue	5.3	6.4	7.0	6.5	6.8	6.6	7.4	5.0	6.7	6.4
Speed	42.5	40.2	36.5	36.2	37.7	37.6	37.0	41.3	37.0	38.5

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	625.6	673.6	610.8	653.2	620.0	700.4	644.8	491.2	2,584.4	5,019.6
Delay	3.0	2.8	5.2	4.6	4.4	5.9	5.1	2.8	5.0	4.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	2.8	5.2	4.6	4.4	5.9	5.1	2.8	5.0	4.3
Mean Queue	0.2	0.2	0.4	0.3	0.3	0.5	0.4	0.1	0.4	0.3
Max Queue	6.9	4.6	9.4	7.9	8.3	10.9	8.9	3.9	9.1	7.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.4	0.3	0.3	0.5	0.4	0.1	0.4	0.3
Total Max Queue	6.9	4.6	9.4	7.9	8.3	10.9	8.9	3.9	9.1	7.8
Speed	39.0	41.3	38.2	37.3	36.9	36.0	37.9	41.3	37.1	38.3

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	280.8	402.0	489.6	529.6	489.6	461.6	466.8	384.8	1,970.4	3,504.8
Delay	0.7	0.7	1.0	0.9	0.9	1.3	1.0	0.8	1.1	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.7	1.0	0.9	0.9	1.3	1.0	0.8	1.1	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.6	1.3	1.1	1.0	1.7	1.1	0.7	1.3	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.6	1.3	1.1	1.0	1.7	1.1	0.7	1.3	1.0
Speed	50.4	49.7	48.7	48.5	48.3	46.7	48.0	49.1	48.1	48.6

2030 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	200.4	204.4	208.4	240.8	210.4	224.8	218.0	219.2	884.4	1,726.4
Delay	0.9	1.0	1.1	1.4	1.2	1.2	1.3	1.1	1.2	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	1.0	1.1	1.4	1.2	1.2	1.3	1.1	1.2	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.5	0.7	1.2	0.6	0.6	0.7	1.0	0.8	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.5	0.7	1.2	0.6	0.6	0.7	1.0	0.8	0.8
Speed	43.5	42.1	42.2	39.6	40.7	41.1	40.2	42.4	40.9	41.4

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	322.0	338.8	350.4	338.4	356.8	323.2	304.8	376.0	1,368.8	2,710.4
Delay	1.6	1.8	1.6	2.3	1.7	1.5	1.7	1.9	1.8	1.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.8	1.6	2.3	1.7	1.5	1.7	1.9	1.8	1.8
Mean Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.9	1.6	1.6	2.1	1.3	1.0	1.0	1.8	1.5	1.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.9	1.6	1.6	2.1	1.3	1.0	1.0	1.8	1.5	1.5
Speed	44.6	43.1	43.4	42.3	44.0	44.7	42.9	42.8	43.6	43.5

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	545.2	553.6	552.4	568.0	580.8	517.2	528.4	486.4	2,218.4	4,332.0
Delay	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.6	0.0	0.4	0.3	0.3	0.2	0.3	0.4	0.3	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.6	0.0	0.4	0.3	0.3	0.2	0.3	0.4	0.3	0.3
Speed	51.8	52.2	52.1	51.9	51.7	52.1	51.7	51.2	51.9	51.8

2030 Do Something

J-01 Riverside Park Road / Ironmasters Way

Arm Reference:	A
Name	Riverside Park Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	248.8	211.2	260.0	246.0	203.6	217.2	238.4	311.6	926.8	1,936.8
Delay	5.2	4.7	5.0	5.8	18.1	129.8	206.6	169.6	39.7	65.0
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.0	0.1
Total Delay	5.3	4.8	5.1	5.9	18.2	129.9	206.7	170.1	39.7	65.1
Mean Queue	0.3	0.2	0.3	0.4	1.4	10.5	15.3	7.7	3.1	4.4
Max Queue	5.5	5.4	5.5	5.7	10.0	18.6	27.9	22.7	10.0	12.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.0	1.3	1.0	1.1	1.1	1.3	1.1	1.1	1.1
Total Mean Queue	0.3	0.2	0.3	0.4	1.4	10.5	15.3	7.7	3.1	4.4
Total Max Queue	6.8	6.4	6.8	6.7	11.1	19.7	29.2	23.8	11.1	13.5
Speed	35.2	34.6	33.5	34.8	27.6	20.7	13.8	17.2	29.2	27.4

Arm Reference:	B
Name	Ironmasters Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	217.2	232.8	220.4	230.4	294.0	246.0	246.4	251.6	990.8	1,938.8
Delay	1.1	1.4	1.3	1.6	1.4	11.4	1.7	1.2	3.9	2.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.4	1.3	1.6	1.4	11.4	1.7	1.2	3.9	2.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.1
Max Queue	0.6	0.5	0.4	0.9	0.7	2.4	0.6	0.9	1.1	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.2	0.1
Total Max Queue	0.6	0.5	0.4	0.9	0.7	2.4	0.6	0.9	1.1	0.9
Speed	47.2	46.0	46.5	43.7	46.4	43.6	45.8	46.1	45.1	45.6

Arm Reference:	C
Name	Riverside Park Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	786.4	866.0	952.0	820.4	1,236.4	993.2	975.6	815.2	4,002.0	7,445.2
Delay	0.5	0.5	0.5	0.6	7.4	26.6	17.6	6.9	8.8	7.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.5	0.5	0.6	7.4	26.6	17.6	6.9	8.8	7.7
Mean Queue	0.0	0.0	0.0	0.0	2.2	4.7	3.1	0.9	1.7	1.4
Max Queue	0.8	0.5	1.1	0.8	12.3	15.4	12.0	9.1	7.4	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	2.2	4.7	3.1	0.9	1.7	1.4
Total Max Queue	0.8	0.5	1.1	0.8	12.3	15.4	12.0	9.1	7.4	6.6
Speed	51.7	50.9	51.0	50.5	47.5	40.4	41.8	44.0	47.3	47.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	487.2	466.4	506.0	334.0	298.4	311.2	289.6	312.0	1,449.6	3,004.8
Delay	6.5	12.1	26.0	15.6	13.2	9.7	9.1	9.7	16.2	13.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	12.1	26.0	15.6	13.2	9.7	9.1	9.7	16.2	13.1
Mean Queue	0.2	0.6	1.5	0.5	0.4	0.3	0.2	0.3	0.7	0.5
Max Queue	2.6	3.9	5.2	3.5	2.6	2.3	2.3	1.9	3.4	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.6	1.5	0.5	0.4	0.3	0.2	0.3	0.7	0.5
Total Max Queue	2.6	3.9	5.2	3.5	2.6	2.3	2.3	1.9	3.4	3.1
Speed	56.5	46.8	34.4	42.2	45.8	50.3	51.3	49.7	43.2	46.7

Arm Reference:	B
Name	Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	277.6	436.0	612.0	483.2	464.4	510.4	417.2	485.6	2,070.0	3,686.4
Delay	20.2	19.3	22.0	19.4	19.6	18.5	21.2	19.4	19.9	19.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.3	22.0	19.4	19.6	18.5	21.2	19.4	19.9	19.9
Mean Queue	0.7	1.1	1.9	1.2	1.1	1.2	1.1	1.1	1.3	1.2
Max Queue	8.4	10.9	13.3	11.6	10.5	11.4	10.0	11.6	11.7	11.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	1.1	1.9	1.2	1.1	1.2	1.1	1.1	1.3	1.2
Total Max Queue	8.4	10.9	13.3	11.6	10.5	11.4	10.0	11.6	11.7	11.0
Speed	49.9	50.2	48.5	49.4	48.8	48.7	49.5	49.8	48.8	49.3

Arm Reference:	C
Name	A1032 Acklam Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	772.0	924.4	1,056.0	959.2	789.6	865.2	825.6	592.4	3,670.0	6,784.4
Delay	18.2	22.2	27.6	21.9	18.8	18.3	19.0	16.8	21.7	20.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	22.2	27.6	21.9	18.8	18.3	19.0	16.8	21.7	20.5
Mean Queue	1.2	1.8	2.4	1.7	1.2	1.4	1.2	0.8	1.7	1.5
Max Queue	5.2	6.3	7.9	6.6	5.1	5.3	5.6	4.1	6.2	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.8	2.4	1.7	1.2	1.4	1.2	0.8	1.7	1.5
Total Max Queue	5.2	6.3	7.9	6.6	5.1	5.3	5.6	4.1	6.2	5.8
Speed	23.0	19.9	17.3	20.5	22.2	22.8	21.8	24.9	20.7	21.4

Arm Reference:	D
Name	A66 Northbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	708.4	888.4	1,045.6	1,076.8	904.8	918.4	952.8	795.2	3,945.6	7,290.4
Delay	41.8	47.9	51.7	60.4	56.3	49.5	49.7	46.4	54.5	50.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	47.9	51.7	60.4	56.3	49.5	49.7	46.4	54.5	50.9
Mean Queue	3.5	5.8	6.0	7.7	6.7	5.1	5.4	4.9	6.4	5.7
Max Queue	12.3	16.9	17.0	19.5	17.5	15.4	15.2	15.0	17.4	16.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	5.8	6.0	7.7	6.7	5.1	5.4	4.9	6.4	5.7
Total Max Queue	12.3	16.9	17.0	19.5	17.5	15.4	15.2	15.0	17.4	16.2
Speed	31.7	26.1	24.3	21.7	22.5	26.3	26.3	27.6	23.7	25.6

Arm Reference:	E
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	298.0	478.4	562.4	602.4	402.8	334.8	300.0	252.4	1,902.4	3,231.2
Delay	0.4	1.1	1.8	2.2	0.9	0.6	0.4	0.3	1.4	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	1.1	1.8	2.2	0.9	0.6	0.4	0.3	1.4	1.0
Mean Queue	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Max Queue	0.5	1.0	1.7	2.7	0.7	0.3	0.1	0.0	1.4	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Total Max Queue	0.5	1.0	1.7	2.7	0.7	0.3	0.1	0.0	1.4	0.9
Speed	47.8	44.4	40.8	41.1	46.3	46.9	48.9	49.8	43.8	45.5

Arm Reference:	F
Name	A1032 Newport Bridge Approach

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	936.0	1,051.6	924.4	1,064.8	1,098.4	926.0	840.8	778.4	4,013.6	7,620.4
Delay	54.7	56.8	58.5	55.6	62.9	57.8	57.7	60.8	58.7	58.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	56.8	58.5	55.6	62.9	57.8	57.7	60.8	58.7	58.2
Mean Queue	3.7	4.3	4.1	4.0	5.1	4.0	3.1	3.3	4.3	4.0
Max Queue	16.0	16.9	13.8	16.8	18.7	14.3	13.5	11.7	15.9	15.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	4.3	4.1	4.0	5.1	4.0	3.1	3.3	4.3	4.0
Total Max Queue	16.0	16.9	13.8	16.8	18.7	14.3	13.5	11.7	15.9	15.3
Speed	43.0	40.0	43.8	39.0	38.7	43.6	44.5	45.5	41.3	42.2

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	61.6	132.8	159.2	283.6	220.0	191.6	242.0	203.2	854.4	1,494.0
Delay	33.7	32.2	33.5	35.4	37.3	34.8	36.7	36.3	35.2	35.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	32.2	33.5	35.4	37.3	34.8	36.7	36.3	35.2	35.0
Mean Queue	0.3	0.6	0.6	1.3	1.2	0.8	1.1	1.1	1.0	0.9
Max Queue	1.7	3.0	2.6	5.2	4.9	3.6	4.6	4.0	4.1	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.6	0.6	1.3	1.2	0.8	1.1	1.1	1.0	0.9
Total Max Queue	1.7	3.0	2.6	5.2	4.9	3.6	4.6	4.0	4.1	3.7
Speed	16.4	18.6	18.7	16.1	15.8	18.2	16.6	17.5	17.2	17.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	356.0	313.2	305.6	318.0	364.8	369.6	349.6	292.4	1,358.0	2,669.2
Delay	6.2	5.8	7.0	6.6	7.7	7.2	6.7	7.4	7.1	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	5.8	7.0	6.6	7.7	7.2	6.7	7.4	7.1	6.9
Mean Queue	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Max Queue	2.0	1.9	1.8	1.8	2.5	2.9	2.0	1.8	2.3	2.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Max Queue	2.0	1.9	1.8	1.8	2.5	2.9	2.0	1.8	2.3	2.1
Speed	56.8	58.6	55.8	56.6	54.8	54.8	56.1	55.3	55.5	56.0

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	759.2	692.4	738.0	736.0	694.8	696.8	710.8	795.2	2,865.6	5,823.2
Delay	21.0	18.2	20.4	20.6	20.6	19.6	22.0	21.5	20.3	20.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	18.2	20.4	20.6	20.6	19.6	22.0	21.5	20.3	20.4
Mean Queue	1.9	1.4	1.8	1.8	1.7	1.6	1.9	2.2	1.7	1.8
Max Queue	18.2	13.5	15.1	15.7	15.1	14.5	17.2	17.0	15.1	15.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.4	1.8	1.8	1.7	1.6	1.9	2.2	1.7	1.8
Total Max Queue	18.2	13.5	15.1	15.7	15.1	14.5	17.2	17.0	15.1	15.7
Speed	47.6	48.7	47.6	46.9	48.7	48.8	47.9	46.3	48.0	47.8

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	498.8	496.8	537.6	539.2	570.4	577.2	564.4	524.0	2,224.4	4,308.4
Delay	16.6	16.7	17.1	16.2	18.5	18.7	17.8	16.9	17.6	17.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	16.7	17.1	16.2	18.5	18.7	17.8	16.9	17.6	17.4
Mean Queue	0.7	0.7	0.7	0.7	0.9	0.9	0.8	0.7	0.8	0.8
Max Queue	3.4	3.0	3.6	3.5	4.2	3.9	3.5	3.4	3.8	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.7	0.7	0.9	0.9	0.8	0.7	0.8	0.8
Total Max Queue	3.4	3.0	3.6	3.5	4.2	3.9	3.5	3.4	3.8	3.6
Speed	25.3	25.1	24.7	25.9	23.0	22.5	23.4	24.6	24.0	24.3

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	614.8	530.0	577.6	702.0	566.8	623.2	594.0	577.6	2,469.6	4,786.0
Delay	40.3	39.1	39.9	39.2	42.2	39.8	40.8	40.1	40.3	40.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	39.1	39.9	39.2	42.2	39.8	40.8	40.1	40.3	40.2
Mean Queue	3.0	2.9	2.6	3.3	3.3	2.8	2.9	3.2	3.0	3.0
Max Queue	10.1	10.1	9.0	10.4	10.6	9.6	9.9	10.6	9.9	10.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	2.9	2.6	3.3	3.3	2.8	2.9	3.2	3.0	3.0
Total Max Queue	10.1	10.1	9.0	10.4	10.6	9.6	9.9	10.6	9.9	10.0
Speed	33.5	34.0	34.2	33.9	32.1	34.2	34.0	33.2	33.6	33.6

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	266.0	231.6	245.2	255.6	242.0	272.8	319.2	216.4	1,015.6	2,048.8
Delay	0.4	0.3	0.3	0.3	0.3	0.5	0.7	0.3	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.3	0.3	0.3	0.3	0.5	0.7	0.3	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.1	0.1	0.2	0.0	0.4	0.3	0.0	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.1	0.1	0.2	0.0	0.4	0.3	0.0	0.2	0.2
Speed	49.7	50.0	50.2	49.9	50.2	48.9	48.2	50.3	49.8	49.7

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	558.8	601.2	619.6	580.0	542.4	586.4	550.0	693.2	2,328.4	4,731.6
Delay	57.9	65.5	53.4	61.7	66.3	61.8	63.7	61.6	60.8	61.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	65.5	53.4	61.7	66.3	61.8	63.7	61.6	60.8	61.4
Mean Queue	2.2	2.6	2.3	2.3	2.4	2.5	2.2	2.9	2.4	2.4
Max Queue	8.9	8.8	8.8	8.7	8.1	8.1	9.5	10.1	8.4	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.6	2.3	2.3	2.4	2.5	2.2	2.9	2.4	2.4
Total Max Queue	8.9	8.8	8.8	8.7	8.1	8.1	9.5	10.1	8.4	8.8
Speed	49.1	49.0	49.1	49.6	49.6	49.7	48.6	48.0	49.5	49.1

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	343.2	198.8	244.4	270.4	249.6	260.0	279.2	175.6	1,024.4	2,021.2
Delay	36.7	36.9	35.2	35.6	38.1	35.7	34.8	33.6	36.2	35.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	36.9	35.2	35.6	38.1	35.7	34.8	33.6	36.2	35.9
Mean Queue	1.6	1.1	1.0	1.2	1.4	1.0	1.2	0.9	1.2	1.2
Max Queue	6.4	4.8	4.0	5.0	5.1	4.5	4.8	3.7	4.7	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.1	1.0	1.2	1.4	1.0	1.2	0.9	1.2	1.2
Total Max Queue	6.4	4.8	4.0	5.0	5.1	4.5	4.8	3.7	4.7	4.8
Speed	16.5	16.5	17.5	16.9	16.8	16.8	17.1	18.7	17.0	17.1

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	442.0	602.0	440.0	473.6	397.6	442.4	524.8	410.4	1,753.6	3,732.8
Delay	9.5	18.8	18.3	17.1	13.6	24.1	21.2	13.6	18.3	17.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	18.8	18.3	17.1	13.6	24.1	21.2	13.6	18.3	17.2
Mean Queue	0.4	1.3	0.9	0.9	0.5	1.3	1.2	0.6	0.9	0.9
Max Queue	3.2	5.6	4.3	4.6	3.4	5.0	6.4	3.8	4.3	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	1.3	0.9	0.9	0.5	1.3	1.2	0.6	0.9	0.9
Total Max Queue	3.2	5.6	4.3	4.6	3.4	5.0	6.4	3.8	4.3	4.5
Speed	50.1	41.4	41.8	43.6	46.0	36.9	40.2	51.6	42.1	43.7

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	912.4	840.0	873.6	737.6	746.0	788.0	811.6	694.8	3,145.2	6,404.0
Delay	61.1	58.6	50.6	36.8	33.3	37.9	42.4	28.8	39.7	43.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	58.6	50.6	36.8	33.3	37.9	42.4	28.8	39.7	43.2
Mean Queue	7.7	7.2	6.1	3.7	3.2	4.2	4.8	2.3	4.3	4.8
Max Queue	23.8	22.7	23.4	21.2	20.6	20.7	21.0	16.3	21.5	21.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.7	7.2	6.1	3.7	3.2	4.2	4.8	2.3	4.3	4.8
Total Max Queue	23.8	22.7	23.4	21.2	20.6	20.7	21.0	16.3	21.5	21.2
Speed	27.1	27.0	28.9	33.0	33.5	32.2	30.2	36.5	31.9	31.1

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	711.6	672.8	764.4	692.0	720.8	715.6	728.4	628.4	2,892.8	5,634.0
Delay	17.6	17.2	19.1	17.7	18.1	18.5	18.1	17.5	18.4	18.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	17.2	19.1	17.7	18.1	18.5	18.1	17.5	18.4	18.0
Mean Queue	1.1	1.0	1.2	1.0	1.1	1.2	1.0	0.9	1.1	1.1
Max Queue	4.9	4.0	4.7	4.5	4.5	4.8	4.2	4.4	4.6	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.0	1.2	1.0	1.1	1.2	1.0	0.9	1.1	1.1
Total Max Queue	4.9	4.0	4.7	4.5	4.5	4.8	4.2	4.4	4.6	4.5
Speed	23.5	24.2	22.0	23.3	23.3	22.2	22.9	24.0	22.7	23.1

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	647.6	591.2	869.6	794.4	595.6	743.2	682.0	523.6	3,002.8	5,447.2
Delay	40.2	41.2	44.5	41.8	40.7	42.0	41.8	39.3	42.3	41.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	41.2	44.5	41.8	40.7	42.0	41.8	39.3	42.3	41.5
Mean Queue	3.1	3.4	4.4	3.9	3.4	3.5	3.4	2.9	3.8	3.6
Max Queue	11.3	11.1	14.2	13.0	11.3	12.0	11.4	9.8	12.6	11.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	3.4	4.4	3.9	3.4	3.5	3.4	2.9	3.8	3.6
Total Max Queue	11.3	11.1	14.2	13.0	11.3	12.0	11.4	9.8	12.6	11.9
Speed	34.3	32.6	29.6	31.8	33.7	32.1	32.7	34.2	31.8	32.5

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	293.2	287.6	332.4	368.8	382.0	372.4	239.2	254.4	1,455.6	2,530.0
Delay	0.4	0.4	0.6	0.8	0.6	0.6	0.4	0.3	0.7	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.4	0.6	0.8	0.6	0.6	0.4	0.3	0.7	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.4	0.3	0.6	0.6	0.6	0.1	0.1	0.5	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.4	0.3	0.6	0.6	0.6	0.1	0.1	0.5	0.4
Speed	49.0	47.4	45.9	45.7	46.4	45.8	47.8	49.3	45.9	47.0

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	982.4	958.8	985.6	1,111.2	1,056.0	976.8	796.8	714.0	4,129.6	7,581.6
Delay	56.3	58.6	54.8	59.5	60.0	54.9	57.7	59.7	57.3	57.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	58.6	54.8	59.5	60.0	54.9	57.7	59.7	57.3	57.7
Mean Queue	4.1	4.1	4.3	4.8	4.7	4.1	3.1	2.9	4.5	4.1
Max Queue	16.8	15.0	15.1	17.1	18.1	14.2	13.6	9.6	16.1	15.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.1	4.1	4.3	4.8	4.7	4.1	3.1	2.9	4.5	4.1
Total Max Queue	16.8	15.0	15.1	17.1	18.1	14.2	13.6	9.6	16.1	15.1
Speed	39.5	41.1	39.4	36.3	37.0	42.0	45.2	47.5	38.7	40.7

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	581.6	512.0	715.6	592.8	754.0	914.4	699.6	374.8	2,976.8	5,144.8
Delay	38.0	38.8	36.4	38.9	48.3	58.8	46.1	38.4	45.6	43.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.0	38.8	36.4	38.9	48.3	58.8	46.1	38.4	45.6	43.3
Mean Queue	2.7	2.8	3.1	2.8	6.6	8.2	4.4	2.1	5.2	4.2
Max Queue	9.4	8.0	11.4	9.2	30.0	32.7	17.5	8.4	20.8	16.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.8	3.1	2.8	6.6	8.2	4.4	2.1	5.2	4.2
Total Max Queue	9.4	8.0	11.4	9.2	30.0	32.7	17.5	8.4	20.8	16.4
Speed	16.9	16.4	19.9	17.1	23.3	23.4	18.9	15.4	20.9	19.1

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	458.8	496.0	491.6	391.2	378.4	352.4	298.4	328.0	1,613.6	3,194.8
Delay	10.4	18.7	36.5	23.1	19.2	16.0	11.8	12.0	23.7	19.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.4	18.7	36.5	23.1	19.2	16.0	11.8	12.0	23.7	19.0
Mean Queue	0.4	1.0	2.2	1.0	0.8	0.6	0.4	0.4	1.2	0.9
Max Queue	4.2	4.9	7.2	4.7	3.8	3.4	2.9	2.8	4.8	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	1.0	2.2	1.0	0.8	0.6	0.4	0.4	1.2	0.9
Total Max Queue	4.2	4.9	7.2	4.7	3.8	3.4	2.9	2.8	4.8	4.3
Speed	50.3	42.5	30.0	36.6	40.1	43.6	48.5	48.5	37.6	42.0

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	371.2	503.6	643.2	544.8	512.8	566.4	460.8	510.0	2,267.2	4,112.8
Delay	19.4	19.0	23.0	19.1	20.7	18.9	22.2	18.6	20.4	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	19.0	23.0	19.1	20.7	18.9	22.2	18.6	20.4	20.1
Mean Queue	0.9	1.2	2.0	1.3	1.4	1.3	1.3	1.1	1.5	1.4
Max Queue	9.6	10.0	14.3	12.7	13.8	12.2	11.7	11.5	13.3	12.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.2	2.0	1.3	1.4	1.3	1.3	1.1	1.5	1.4
Total Max Queue	9.6	10.0	14.3	12.7	13.8	12.2	11.7	11.5	13.3	12.1
Speed	49.1	49.5	47.9	48.5	48.3	49.1	48.8	50.0	48.5	48.9

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	902.0	985.2	1,130.4	1,061.6	930.0	1,016.8	899.2	730.8	4,138.8	7,656.0
Delay	19.4	21.9	27.2	21.3	20.6	20.9	19.1	18.8	22.5	21.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	21.9	27.2	21.3	20.6	20.9	19.1	18.8	22.5	21.3
Mean Queue	1.5	1.9	2.5	1.8	1.6	1.8	1.3	1.1	1.9	1.7
Max Queue	6.4	6.7	7.8	6.7	5.8	6.4	5.5	4.9	6.7	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.9	2.5	1.8	1.6	1.8	1.3	1.1	1.9	1.7
Total Max Queue	6.4	6.7	7.8	6.7	5.8	6.4	5.5	4.9	6.7	6.3
Speed	21.7	19.8	17.3	20.5	20.8	20.1	21.5	22.5	19.7	20.4

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	727.6	874.8	1,057.2	1,096.0	932.4	946.4	934.8	776.0	4,032.0	7,345.2
Delay	41.4	50.1	64.1	104.9	94.0	61.4	46.1	43.3	81.1	65.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	50.1	64.1	104.9	94.0	61.4	46.1	43.3	81.1	65.2
Mean Queue	3.6	6.1	7.8	14.2	11.1	5.9	5.0	4.5	9.8	7.6
Max Queue	12.4	18.2	20.9	29.2	25.2	18.5	14.6	13.4	23.5	19.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.6	6.1	7.8	14.2	11.1	5.9	5.0	4.5	9.8	7.6
Total Max Queue	12.4	18.2	20.9	29.2	25.2	18.5	14.6	13.4	23.5	19.5
Speed	31.3	25.8	21.2	13.2	16.3	23.5	27.5	30.1	18.5	23.0

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	320.4	506.8	575.6	657.6	430.4	389.2	335.2	293.2	2,052.8	3,508.4
Delay	0.8	1.2	3.8	7.9	1.9	1.7	0.4	0.4	3.8	2.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	1.2	3.8	7.9	1.9	1.7	0.4	0.4	3.8	2.4
Mean Queue	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.0	0.2	0.1
Max Queue	0.7	1.0	3.4	5.9	1.9	1.0	0.3	0.5	3.1	2.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.2	0.6	0.1	0.1	0.0	0.0	0.2	0.1
Total Max Queue	0.7	1.0	3.4	5.9	1.9	1.0	0.3	0.5	3.1	2.0
Speed	45.7	42.0	36.1	32.3	41.6	41.8	48.6	48.2	38.0	41.6

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,027.2	1,020.0	962.0	1,088.0	1,075.6	1,002.0	962.8	818.0	4,127.6	7,955.6
Delay	79.0	88.0	119.2	139.7	170.6	172.4	108.1	59.6	150.5	120.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.0	88.0	119.2	139.7	170.6	172.4	108.1	59.6	150.5	120.8
Mean Queue	6.7	7.8	12.2	14.8	20.0	18.8	8.3	3.3	16.4	12.0
Max Queue	22.5	22.1	27.9	34.5	41.4	42.5	28.9	12.1	36.6	29.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.7	7.8	12.2	14.8	20.0	18.8	8.3	3.3	16.4	12.0
Total Max Queue	22.5	22.1	27.9	34.5	41.4	42.5	28.9	12.1	36.6	29.8
Speed	31.1	27.9	18.6	15.1	11.8	14.6	26.7	46.0	15.0	23.0

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	137.2	185.2	186.4	311.2	268.0	226.4	283.6	266.8	992.0	1,864.8
Delay	34.6	34.2	36.1	34.4	36.3	34.6	32.4	35.5	35.4	34.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	34.2	36.1	34.4	36.3	34.6	32.4	35.5	35.4	34.8
Mean Queue	0.6	0.8	1.0	1.3	1.2	1.2	1.1	1.2	1.2	1.0
Max Queue	2.9	3.7	4.4	5.1	5.3	4.7	5.2	4.9	4.9	4.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.8	1.0	1.3	1.2	1.2	1.1	1.2	1.2	1.0
Total Max Queue	2.9	3.7	4.4	5.1	5.3	4.7	5.2	4.9	4.9	4.6
Speed	18.7	17.8	17.3	18.2	16.9	16.6	18.5	16.1	17.2	17.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	361.6	349.2	404.4	402.4	422.0	394.4	426.4	410.0	1,623.2	3,170.4
Delay	9.5	8.1	9.2	11.2	10.8	10.0	9.1	10.5	10.3	9.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	8.1	9.2	11.2	10.8	10.0	9.1	10.5	10.3	9.9
Mean Queue	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4
Max Queue	3.2	2.3	3.0	3.9	3.7	3.4	3.4	3.2	3.5	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4
Total Max Queue	3.2	2.3	3.0	3.9	3.7	3.4	3.4	3.2	3.5	3.3
Speed	52.3	53.9	52.0	48.9	50.6	51.8	52.5	51.4	50.8	51.6

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	763.6	692.0	728.0	726.0	664.8	727.6	652.0	756.8	2,846.4	5,710.8
Delay	16.2	16.7	15.9	16.4	16.1	16.6	16.3	16.4	16.3	16.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	16.7	15.9	16.4	16.1	16.6	16.3	16.4	16.3	16.3
Mean Queue	1.2	1.2	1.1	1.2	1.1	1.3	1.1	1.3	1.2	1.2
Max Queue	12.6	9.9	8.4	10.3	12.2	11.8	8.5	12.8	10.7	10.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.2	1.1	1.2	1.1	1.3	1.1	1.3	1.2	1.2
Total Max Queue	12.6	9.9	8.4	10.3	12.2	11.8	8.5	12.8	10.7	10.8
Speed	49.2	49.0	49.6	49.6	50.0	49.5	49.7	49.5	49.7	49.5

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	487.6	499.6	560.8	528.8	586.0	562.0	583.2	521.2	2,237.6	4,329.2
Delay	15.4	16.8	17.3	17.1	18.2	17.9	17.8	17.8	17.6	17.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	16.8	17.3	17.1	18.2	17.9	17.8	17.8	17.6	17.3
Mean Queue	0.6	0.7	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8
Max Queue	3.4	3.3	3.8	3.8	3.8	3.8	3.8	3.6	3.8	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.7	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.8
Total Max Queue	3.4	3.3	3.8	3.8	3.8	3.8	3.8	3.6	3.8	3.7
Speed	25.5	24.3	24.4	24.4	24.0	23.6	23.4	23.5	24.1	24.1

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	612.8	541.2	603.2	697.2	540.8	618.4	588.0	584.0	2,459.6	4,785.6
Delay	39.9	39.3	39.5	40.4	40.3	39.3	39.3	39.5	39.9	39.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.9	39.3	39.5	40.4	40.3	39.3	39.3	39.5	39.9	39.7
Mean Queue	3.0	2.9	2.7	3.4	3.0	2.7	2.8	3.2	3.0	3.0
Max Queue	10.6	9.8	9.3	10.7	10.5	9.4	9.4	10.8	10.0	10.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	2.9	2.7	3.4	3.0	2.7	2.8	3.2	3.0	3.0
Total Max Queue	10.6	9.8	9.3	10.7	10.5	9.4	9.4	10.8	10.0	10.1
Speed	33.2	33.5	34.2	33.7	33.6	34.8	34.2	33.4	34.1	33.9

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	280.8	269.2	234.8	283.2	270.0	300.0	341.2	243.6	1,088.0	2,222.8
Delay	0.4	0.3	0.4	0.3	0.4	0.5	0.6	0.3	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.3	0.4	0.3	0.4	0.5	0.6	0.3	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.0	0.1	0.1	0.0	0.2	0.4	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.0	0.1	0.1	0.0	0.2	0.4	0.0	0.1	0.1
Speed	49.0	49.6	49.6	49.4	48.6	48.6	47.6	49.0	49.1	48.9

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	631.6	620.0	712.8	663.6	642.0	628.0	614.0	767.2	2,646.4	5,279.2
Delay	60.3	66.4	64.7	61.9	65.9	61.6	66.4	73.2	63.5	64.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	66.4	64.7	61.9	65.9	61.6	66.4	73.2	63.5	64.9
Mean Queue	2.6	2.8	3.6	2.6	2.9	2.7	2.7	4.1	3.0	3.0
Max Queue	11.9	10.5	11.8	10.6	10.7	9.7	11.1	13.6	10.7	11.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.8	3.6	2.6	2.9	2.7	2.7	4.1	3.0	3.0
Total Max Queue	11.9	10.5	11.8	10.6	10.7	9.7	11.1	13.6	10.7	11.2
Speed	45.7	47.1	41.7	46.4	46.1	48.4	44.2	41.1	45.7	45.2

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	329.6	281.2	222.0	302.4	284.4	223.2	287.2	238.8	1,032.0	2,168.8
Delay	33.5	35.9	34.6	37.7	37.7	35.7	34.3	35.7	36.4	35.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	35.9	34.6	37.7	37.7	35.7	34.3	35.7	36.4	35.7
Mean Queue	1.3	1.3	1.2	1.3	1.3	1.2	1.1	1.1	1.3	1.2
Max Queue	6.2	5.2	4.6	5.8	5.5	4.7	4.9	4.3	5.2	5.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.3	1.2	1.3	1.3	1.2	1.1	1.1	1.3	1.2
Total Max Queue	6.2	5.2	4.6	5.8	5.5	4.7	4.9	4.3	5.2	5.2
Speed	17.9	16.6	16.7	15.6	15.6	17.7	16.9	16.6	16.4	16.7

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	427.2	588.8	516.0	460.8	408.0	448.8	470.8	462.0	1,833.6	3,782.4
Delay	18.5	33.4	35.9	23.0	28.5	53.7	124.7	76.0	35.3	47.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	33.4	35.9	23.0	28.5	53.7	124.7	76.0	35.3	47.7
Mean Queue	0.9	2.4	2.2	1.3	1.3	3.6	8.5	3.3	2.1	2.9
Max Queue	4.8	8.6	7.7	5.9	5.4	9.8	15.7	11.5	7.2	8.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	2.4	2.2	1.3	1.3	3.6	8.5	3.3	2.1	2.9
Total Max Queue	4.8	8.6	7.7	5.9	5.4	9.8	15.7	11.5	7.2	8.5
Speed	40.4	30.5	30.2	37.2	34.8	22.9	16.7	30.9	31.3	30.6

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	941.6	871.2	912.4	798.0	793.2	873.2	900.8	769.2	3,376.8	6,859.6
Delay	18.2	18.4	19.4	17.5	16.1	18.4	20.5	15.7	17.9	18.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	18.4	19.4	17.5	16.1	18.4	20.5	15.7	17.9	18.0
Mean Queue	1.8	1.8	2.0	1.6	1.3	1.9	2.1	1.1	1.7	1.7
Max Queue	17.1	15.6	15.4	14.7	11.6	16.1	15.1	8.9	14.5	14.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.8	2.0	1.6	1.3	1.9	2.1	1.1	1.7	1.7
Total Max Queue	17.1	15.6	15.4	14.7	11.6	16.1	15.1	8.9	14.5	14.3
Speed	47.3	47.1	47.3	47.8	48.7	47.7	46.9	50.1	47.9	47.9

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	673.6	700.0	762.8	716.4	706.4	726.0	706.4	643.2	2,911.6	5,634.8
Delay	18.0	19.5	20.3	17.8	18.8	18.3	17.2	19.3	18.8	18.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	19.5	20.3	17.8	18.8	18.3	17.2	19.3	18.8	18.7
Mean Queue	1.0	1.2	1.2	1.1	1.1	1.2	0.9	1.0	1.1	1.1
Max Queue	5.3	4.7	5.3	5.1	4.4	4.5	4.1	4.0	4.8	4.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.2	1.2	1.1	1.1	1.2	0.9	1.0	1.1	1.1
Total Max Queue	5.3	4.7	5.3	5.1	4.4	4.5	4.1	4.0	4.8	4.7
Speed	23.1	21.9	21.5	23.6	22.5	22.7	23.6	22.5	22.6	22.7

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	619.2	618.0	847.2	787.6	607.6	729.2	728.0	541.6	2,971.6	5,478.4
Delay	38.7	40.0	45.2	41.7	43.3	40.7	42.2	39.8	42.7	41.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.7	40.0	45.2	41.7	43.3	40.7	42.2	39.8	42.7	41.6
Mean Queue	2.9	3.4	4.4	3.9	3.7	3.3	3.6	3.0	3.8	3.6
Max Queue	10.7	11.4	14.2	12.7	11.9	10.8	11.1	10.9	12.4	11.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	3.4	4.4	3.9	3.7	3.3	3.6	3.0	3.8	3.6
Total Max Queue	10.7	11.4	14.2	12.7	11.9	10.8	11.1	10.9	12.4	11.8
Speed	34.5	33.4	29.1	31.2	31.2	33.0	31.5	33.9	31.1	32.1

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	309.6	296.0	346.0	372.0	409.2	392.0	303.2	287.6	1,519.2	2,715.6
Delay	0.6	0.5	1.0	1.1	0.8	1.6	0.8	0.4	1.1	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.5	1.0	1.1	0.8	1.6	0.8	0.4	1.1	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.3	0.7	0.8	0.9	1.1	0.6	0.2	0.9	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.3	0.7	0.8	0.9	1.1	0.6	0.2	0.9	0.7
Speed	47.1	47.6	44.6	45.1	45.5	42.5	46.8	48.2	44.4	45.8

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	989.6	1,032.4	914.8	1,080.4	1,020.0	984.4	1,093.2	880.4	3,999.6	7,995.2
Delay	109.0	119.2	136.7	209.9	294.5	307.0	265.8	129.4	237.0	201.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	109.0	119.2	136.7	209.9	294.5	307.0	265.8	129.4	237.0	201.0
Mean Queue	10.1	11.6	13.9	25.5	35.2	38.1	29.2	10.0	28.2	22.4
Max Queue	25.7	26.7	30.0	52.0	64.1	67.0	59.9	29.8	53.3	45.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	10.1	11.6	13.9	25.5	35.2	38.1	29.2	10.0	28.2	22.4
Total Max Queue	25.7	26.7	30.0	52.0	64.1	67.0	59.9	29.8	53.3	45.4
Speed	22.9	18.3	15.3	8.1	4.7	5.5	7.2	26.7	8.4	13.0

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	687.2	714.8	655.6	718.4	931.2	779.6	844.0	697.6	3,084.8	6,028.4
Delay	36.8	37.7	38.3	37.8	66.4	101.0	101.9	54.5	60.9	59.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	37.7	38.3	37.8	66.4	101.0	101.9	54.5	60.9	59.5
Mean Queue	3.0	3.3	3.7	3.1	11.4	17.6	15.6	5.2	8.9	8.0
Max Queue	12.2	12.0	13.8	13.3	49.2	54.0	44.7	29.1	32.6	29.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	3.3	3.7	3.1	11.4	17.6	15.6	5.2	8.9	8.0
Total Max Queue	12.2	12.0	13.8	13.3	49.2	54.0	44.7	29.1	32.6	29.0
Speed	18.7	18.0	19.8	19.6	24.6	23.2	20.0	19.4	21.8	20.6

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	474.8	497.6	460.8	424.0	373.6	343.2	293.6	322.8	1,601.6	3,190.4
Delay	11.4	23.7	44.0	111.0	48.8	21.8	13.5	14.5	56.4	38.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	23.7	44.0	111.0	48.8	21.8	13.5	14.5	56.4	38.3
Mean Queue	0.5	1.4	2.9	6.7	1.4	0.9	0.4	0.5	3.0	2.0
Max Queue	4.1	5.8	8.4	12.2	7.6	4.0	2.8	3.4	8.1	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	1.4	2.9	6.7	1.4	0.9	0.4	0.5	3.0	2.0
Total Max Queue	4.1	5.8	8.4	12.2	7.6	4.0	2.8	3.4	8.1	6.3
Speed	49.0	37.8	27.5	17.8	32.4	38.8	44.8	45.3	29.1	35.8

Arm Reference:	B
Name	Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	520.4	616.4	751.6	734.8	691.6	678.0	644.4	679.6	2,856.0	5,316.8
Delay	19.4	19.3	44.5	53.0	29.8	18.8	21.4	18.5	36.5	29.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	19.3	44.5	53.0	29.8	18.8	21.4	18.5	36.5	29.0
Mean Queue	1.4	1.6	5.4	5.9	2.9	1.6	1.8	1.5	4.0	2.9
Max Queue	12.0	12.8	20.3	19.2	15.6	12.4	15.5	13.5	16.9	15.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.6	5.4	5.9	2.9	1.6	1.8	1.5	4.0	2.9
Total Max Queue	12.0	12.8	20.3	19.2	15.6	12.4	15.5	13.5	16.9	15.4
Speed	49.4	49.1	39.9	38.9	45.0	48.7	48.2	48.4	43.1	45.6

Arm Reference:	C
Name	A1032 Acklam Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	850.8	933.2	1,186.4	1,033.2	943.2	984.8	878.8	728.4	4,147.6	7,538.8
Delay	19.8	23.6	32.3	29.2	25.5	21.4	19.5	18.4	27.1	24.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	23.6	32.3	29.2	25.5	21.4	19.5	18.4	27.1	24.1
Mean Queue	1.4	1.9	3.1	2.5	2.0	1.8	1.3	1.1	2.4	2.0
Max Queue	6.5	6.7	8.1	7.6	6.4	6.4	5.6	5.0	7.1	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.9	3.1	2.5	2.0	1.8	1.3	1.1	2.4	2.0
Total Max Queue	6.5	6.7	8.1	7.6	6.4	6.4	5.6	5.0	7.1	6.6
Speed	21.4	19.5	15.4	17.5	18.6	20.0	20.7	23.4	17.9	19.4

Arm Reference:	D
Name	A66 Northbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	730.0	918.4	1,070.0	1,093.6	902.4	1,034.8	990.8	790.8	4,100.8	7,530.8
Delay	40.1	55.2	63.7	88.9	108.0	76.1	53.3	48.3	84.2	68.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	55.2	63.7	88.9	108.0	76.1	53.3	48.3	84.2	68.7
Mean Queue	3.5	6.9	7.8	12.1	13.2	8.0	6.0	5.1	10.3	8.1
Max Queue	12.0	19.1	20.3	27.1	27.7	24.2	17.6	14.2	24.8	20.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	6.9	7.8	12.1	13.2	8.0	6.0	5.1	10.3	8.1
Total Max Queue	12.0	19.1	20.3	27.1	27.7	24.2	17.6	14.2	24.8	20.8
Speed	33.4	22.7	20.8	15.0	15.2	20.6	24.8	26.6	17.9	21.9

Arm Reference:	E
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	312.0	477.6	614.8	644.8	456.4	387.2	334.4	282.8	2,103.2	3,510.0
Delay	0.7	2.2	7.1	8.8	3.1	2.5	0.8	0.7	5.4	3.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	2.2	7.1	8.8	3.1	2.5	0.8	0.7	5.4	3.5
Mean Queue	0.0	0.1	0.5	0.6	0.1	0.1	0.0	0.0	0.3	0.2
Max Queue	1.0	2.1	4.7	5.5	2.6	1.5	0.6	0.6	3.6	2.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.5	0.6	0.1	0.1	0.0	0.0	0.3	0.2
Total Max Queue	1.0	2.1	4.7	5.5	2.6	1.5	0.6	0.6	3.6	2.5
Speed	45.1	39.7	29.5	26.6	37.2	38.7	44.8	47.4	33.0	38.0

Arm Reference:	F
Name	A1032 Newport Bridge Approach

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,031.6	1,068.4	989.6	1,070.4	1,090.4	1,050.4	1,054.4	903.2	4,200.8	8,258.4
Delay	74.9	90.0	120.1	114.1	184.7	200.3	150.2	90.9	154.8	131.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	90.0	120.1	114.1	184.7	200.3	150.2	90.9	154.8	131.1
Mean Queue	6.3	8.4	12.7	11.3	22.4	24.0	14.3	6.9	17.6	13.7
Max Queue	19.3	25.7	29.2	33.1	47.4	50.0	39.0	19.7	39.9	33.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.3	8.4	12.7	11.3	22.4	24.0	14.3	6.9	17.6	13.7
Total Max Queue	19.3	25.7	29.2	33.1	47.4	50.0	39.0	19.7	39.9	33.7
Speed	33.3	23.9	17.9	18.3	6.6	7.4	17.7	35.1	12.6	19.2

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	198.0	303.6	298.8	459.2	375.2	322.4	379.2	363.2	1,455.6	2,699.6
Delay	32.9	35.1	36.2	38.2	35.5	34.7	35.4	35.7	36.1	35.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	35.1	36.2	38.2	35.5	34.7	35.4	35.7	36.1	35.5
Mean Queue	0.8	1.3	1.6	2.1	1.6	1.6	1.6	1.6	1.7	1.6
Max Queue	3.8	5.7	6.4	7.3	6.1	6.2	6.6	6.2	6.5	6.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	1.3	1.6	2.1	1.6	1.6	1.6	1.6	1.7	1.6
Total Max Queue	3.8	5.7	6.4	7.3	6.1	6.2	6.6	6.2	6.5	6.1
Speed	18.0	16.6	16.1	16.8	16.9	17.6	17.7	16.6	16.8	17.0

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	391.2	410.8	428.0	400.8	431.2	416.0	412.0	375.6	1,676.0	3,265.6
Delay	13.4	12.1	10.6	13.7	12.2	13.9	13.1	11.4	12.6	12.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	12.1	10.6	13.7	12.2	13.9	13.1	11.4	12.6	12.6
Mean Queue	0.5	0.5	0.4	0.6	0.5	0.6	0.5	0.4	0.5	0.5
Max Queue	4.4	3.5	3.0	3.6	3.3	4.2	3.7	3.2	3.5	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.5	0.4	0.6	0.5	0.6	0.5	0.4	0.5	0.5
Total Max Queue	4.4	3.5	3.0	3.6	3.3	4.2	3.7	3.2	3.5	3.6
Speed	46.0	48.1	49.6	45.7	47.6	46.6	46.7	49.6	47.4	47.5

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	730.4	683.2	748.8	747.6	734.0	733.6	737.6	786.8	2,964.0	5,902.0
Delay	15.8	18.5	17.9	16.2	15.9	16.9	17.6	16.9	16.7	17.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	18.5	17.9	16.2	15.9	16.9	17.6	16.9	16.7	17.0
Mean Queue	1.2	1.4	1.3	1.2	1.2	1.3	1.3	1.5	1.3	1.3
Max Queue	13.5	10.2	11.0	11.1	9.7	11.8	11.8	11.5	10.9	11.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.4	1.3	1.2	1.2	1.3	1.3	1.5	1.3	1.3
Total Max Queue	13.5	10.2	11.0	11.1	9.7	11.8	11.8	11.5	10.9	11.3
Speed	49.6	49.3	48.9	48.9	49.6	49.6	49.0	49.0	49.3	49.2

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	552.4	529.2	585.2	584.0	612.4	604.4	634.8	575.6	2,386.0	4,678.0
Delay	16.3	16.9	18.7	16.7	17.1	17.1	18.7	17.3	17.4	17.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.9	18.7	16.7	17.1	17.1	18.7	17.3	17.4	17.4
Mean Queue	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.8
Max Queue	4.0	3.6	3.9	3.6	3.9	3.8	4.1	3.7	3.8	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.8	0.9	0.8
Total Max Queue	4.0	3.6	3.9	3.6	3.9	3.8	4.1	3.7	3.8	3.8
Speed	25.0	24.5	22.8	24.8	24.4	24.0	22.6	24.3	24.0	24.0

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	750.4	684.4	768.8	846.8	691.6	781.2	709.6	663.2	3,088.4	5,896.0
Delay	41.9	40.3	43.6	41.7	42.4	45.9	43.1	41.9	43.4	42.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	40.3	43.6	41.7	42.4	45.9	43.1	41.9	43.4	42.7
Mean Queue	3.8	3.8	3.8	4.2	4.1	4.0	3.6	3.9	4.0	3.9
Max Queue	12.7	12.0	12.5	13.3	12.2	13.5	11.8	12.3	12.9	12.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	3.8	3.8	4.2	4.1	4.0	3.6	3.9	4.0	3.9
Total Max Queue	12.7	12.0	12.5	13.3	12.2	13.5	11.8	12.3	12.9	12.6
Speed	32.2	32.5	30.4	31.5	31.3	29.1	31.5	31.7	30.5	31.2

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	299.2	292.4	250.0	294.8	273.2	298.8	349.2	235.6	1,116.8	2,293.2
Delay	0.4	0.5	0.4	0.4	0.4	0.4	0.6	0.4	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.4	0.4	0.4	0.4	0.6	0.4	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.2	0.2	0.3	0.1	0.2	0.3	0.1	0.2	0.2
Speed	48.5	47.8	48.7	48.8	48.1	48.3	47.5	48.8	48.5	48.3

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	670.0	648.4	729.6	689.6	626.4	685.6	632.4	768.0	2,731.2	5,450.0
Delay	57.9	63.9	53.4	61.5	65.4	59.3	65.9	65.0	59.9	61.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	63.9	53.4	61.5	65.4	59.3	65.9	65.0	59.9	61.4
Mean Queue	2.7	2.8	2.7	2.7	2.8	2.9	2.6	3.4	2.8	2.8
Max Queue	11.0	9.2	10.4	10.2	9.5	9.2	9.4	11.2	9.8	10.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.8	2.7	2.7	2.8	2.9	2.6	3.4	2.8	2.8
Total Max Queue	11.0	9.2	10.4	10.2	9.5	9.2	9.4	11.2	9.8	10.0
Speed	47.3	48.9	46.8	48.9	49.0	49.1	48.3	47.0	48.5	48.2

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	471.6	423.2	345.6	420.4	433.6	343.6	422.4	375.2	1,543.2	3,235.6
Delay	37.9	36.8	36.7	35.5	37.2	36.7	37.0	36.2	36.5	36.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	36.8	36.7	35.5	37.2	36.7	37.0	36.2	36.5	36.7
Mean Queue	2.1	1.9	1.9	1.7	2.0	1.8	1.8	1.7	1.9	1.9
Max Queue	9.1	7.6	7.5	7.6	7.5	6.8	7.9	7.1	7.4	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	1.9	1.9	1.7	2.0	1.8	1.8	1.7	1.9	1.9
Total Max Queue	9.1	7.6	7.5	7.6	7.5	6.8	7.9	7.1	7.4	7.6
Speed	15.7	17.2	16.3	16.5	16.5	16.1	16.5	16.3	16.3	16.4

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	462.4	539.2	496.4	429.6	440.0	441.2	490.0	495.2	1,807.2	3,794.0
Delay	38.2	62.9	134.2	103.5	80.5	72.7	183.4	154.6	97.7	103.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	62.9	134.2	103.5	80.5	72.7	183.4	154.6	97.7	103.1
Mean Queue	2.3	4.9	8.9	6.1	3.7	5.4	12.6	8.5	6.0	6.5
Max Queue	8.0	12.5	16.4	11.2	9.8	14.1	20.0	17.4	12.9	13.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	4.9	8.9	6.1	3.7	5.4	12.6	8.5	6.0	6.5
Total Max Queue	8.0	12.5	16.4	11.2	9.8	14.1	20.0	17.4	12.9	13.6
Speed	29.0	22.1	12.8	18.8	25.1	19.1	7.9	13.3	19.0	18.6

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	962.8	904.0	951.2	867.2	868.8	961.2	936.0	870.8	3,648.4	7,322.0
Delay	23.7	22.4	21.9	21.2	17.9	23.6	22.7	16.1	21.1	21.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	22.4	21.9	21.2	17.9	23.6	22.7	16.1	21.1	21.2
Mean Queue	2.7	2.5	2.5	2.2	1.6	3.0	2.5	1.3	2.4	2.3
Max Queue	20.5	16.5	16.4	15.8	14.0	18.0	18.9	10.7	16.1	16.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.5	2.5	2.2	1.6	3.0	2.5	1.3	2.4	2.3
Total Max Queue	20.5	16.5	16.4	15.8	14.0	18.0	18.9	10.7	16.1	16.3
Speed	44.9	45.6	45.8	46.2	48.1	44.7	45.5	49.6	46.2	46.3

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	750.0	722.8	805.2	758.0	720.4	762.4	813.6	726.8	3,046.0	6,059.2
Delay	18.0	20.0	18.7	19.1	18.6	19.2	20.6	19.7	18.9	19.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	20.0	18.7	19.1	18.6	19.2	20.6	19.7	18.9	19.2
Mean Queue	1.1	1.2	1.2	1.2	1.1	1.3	1.3	1.2	1.2	1.2
Max Queue	5.3	5.2	4.9	5.0	5.0	5.0	5.3	5.4	5.0	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.2	1.2	1.1	1.3	1.3	1.2	1.2	1.2
Total Max Queue	5.3	5.2	4.9	5.0	5.0	5.0	5.3	5.4	5.0	5.1
Speed	23.0	21.6	22.4	21.4	22.8	21.5	21.0	22.3	22.0	22.0

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	685.6	655.6	919.6	826.8	646.4	789.6	746.4	605.6	3,182.4	5,875.6
Delay	41.6	41.2	46.1	44.1	42.4	41.4	42.8	40.0	43.5	42.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	41.2	46.1	44.1	42.4	41.4	42.8	40.0	43.5	42.6
Mean Queue	3.4	3.7	4.9	4.3	3.8	3.6	3.8	3.4	4.2	3.9
Max Queue	12.0	12.2	15.6	14.2	12.4	12.6	12.2	11.1	13.7	12.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.4	3.7	4.9	4.3	3.8	3.6	3.8	3.4	4.2	3.9
Total Max Queue	12.0	12.2	15.6	14.2	12.4	12.6	12.2	11.1	13.7	12.9
Speed	33.1	32.3	28.1	30.5	32.0	31.4	31.5	33.6	30.5	31.4

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	314.8	323.6	328.4	378.4	409.2	408.8	292.4	310.8	1,524.8	2,766.4
Delay	0.6	0.7	1.6	3.2	0.9	1.7	0.7	1.1	1.9	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.7	1.6	3.2	0.9	1.7	0.7	1.1	1.9	1.4
Mean Queue	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0
Max Queue	0.5	0.3	1.2	1.7	0.6	1.3	0.1	0.6	1.2	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0
Total Max Queue	0.5	0.3	1.2	1.7	0.6	1.3	0.1	0.6	1.2	0.8
Speed	47.3	45.5	41.5	41.0	44.9	41.9	45.6	45.6	42.3	44.0

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,053.6	1,058.0	983.2	1,115.6	1,077.2	979.6	1,106.8	944.4	4,155.6	8,318.4
Delay	113.2	121.4	140.6	206.8	268.8	307.5	275.9	190.7	230.9	206.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	113.2	121.4	140.6	206.8	268.8	307.5	275.9	190.7	230.9	206.2
Mean Queue	11.3	12.0	15.5	25.1	33.9	38.4	31.6	18.4	28.2	23.8
Max Queue	28.5	28.8	33.6	51.9	62.9	66.1	58.7	39.8	53.6	47.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.3	12.0	15.5	25.1	33.9	38.4	31.6	18.4	28.2	23.8
Total Max Queue	28.5	28.8	33.6	51.9	62.9	66.1	58.7	39.8	53.6	47.1
Speed	18.7	17.4	15.7	8.5	4.9	4.3	6.7	20.4	8.4	11.7

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	837.2	858.8	774.0	888.0	940.8	789.6	888.0	915.6	3,392.4	6,892.0
Delay	38.6	40.3	70.1	139.2	161.4	202.3	273.6	224.8	143.2	143.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	40.3	70.1	139.2	161.4	202.3	273.6	224.8	143.2	143.7
Mean Queue	4.1	4.6	12.1	23.7	33.9	41.2	53.1	40.0	27.7	26.7
Max Queue	20.3	22.2	48.0	62.8	91.6	98.6	100.1	97.0	75.3	68.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.1	4.6	12.1	23.7	33.9	41.2	53.1	40.0	27.7	26.7
Total Max Queue	20.3	22.2	48.0	62.8	91.6	98.6	100.1	97.0	75.3	68.4
Speed	21.7	22.0	21.6	22.0	24.0	23.0	21.8	21.2	22.7	22.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	485.2	526.8	488.4	426.0	366.4	357.2	298.8	344.0	1,638.0	3,292.8
Delay	11.1	21.6	33.9	44.4	20.6	16.7	12.5	13.2	28.9	22.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	21.6	33.9	44.4	20.6	16.7	12.5	13.2	28.9	22.5
Mean Queue	0.5	1.3	2.1	2.3	0.8	0.6	0.4	0.5	1.5	1.1
Max Queue	4.0	5.9	6.3	8.0	3.9	3.7	3.0	3.0	5.5	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	1.3	2.1	2.3	0.8	0.6	0.4	0.5	1.5	1.1
Total Max Queue	4.0	5.9	6.3	8.0	3.9	3.7	3.0	3.0	5.5	4.8
Speed	50.0	39.6	31.2	29.0	39.7	41.4	46.5	46.0	35.3	39.9

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	398.0	479.6	648.8	563.2	500.0	560.0	500.4	508.4	2,272.0	4,158.4
Delay	19.4	19.7	20.9	20.0	19.2	18.3	22.0	18.7	19.6	19.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	19.7	20.9	20.0	19.2	18.3	22.0	18.7	19.6	19.8
Mean Queue	1.0	1.3	1.7	1.5	1.2	1.2	1.4	1.1	1.4	1.3
Max Queue	9.6	11.0	13.7	11.5	11.3	12.3	13.4	11.7	12.2	11.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.3	1.7	1.5	1.2	1.2	1.4	1.1	1.4	1.3
Total Max Queue	9.6	11.0	13.7	11.5	11.3	12.3	13.4	11.7	12.2	11.9
Speed	50.0	49.1	48.5	48.7	49.3	49.3	48.3	49.7	48.9	49.1

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	860.4	970.0	1,143.2	1,050.0	938.4	995.6	934.0	732.0	4,127.2	7,623.6
Delay	19.5	23.5	27.3	22.5	21.5	21.3	18.9	17.1	23.1	21.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	23.5	27.3	22.5	21.5	21.3	18.9	17.1	23.1	21.6
Mean Queue	1.4	2.0	2.5	1.9	1.7	1.8	1.3	1.0	2.0	1.7
Max Queue	6.0	7.0	7.6	6.9	5.8	6.7	5.6	4.4	6.8	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	2.0	2.5	1.9	1.7	1.8	1.3	1.0	2.0	1.7
Total Max Queue	6.0	7.0	7.6	6.9	5.8	6.7	5.6	4.4	6.8	6.3
Speed	21.3	19.5	17.2	19.5	20.3	20.2	21.5	24.0	19.3	20.3

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	715.2	884.0	1,056.0	1,080.0	927.6	948.8	964.8	787.6	4,012.4	7,364.0
Delay	40.0	47.8	60.3	75.2	106.0	80.8	51.6	49.9	80.5	65.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	47.8	60.3	75.2	106.0	80.8	51.6	49.9	80.5	65.8
Mean Queue	3.4	5.8	7.3	10.8	12.3	7.9	5.7	5.3	9.6	7.6
Max Queue	12.1	16.2	19.7	24.7	24.7	20.5	16.6	15.6	22.4	19.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.4	5.8	7.3	10.8	12.3	7.9	5.7	5.3	9.6	7.6
Total Max Queue	12.1	16.2	19.7	24.7	24.7	20.5	16.6	15.6	22.4	19.2
Speed	34.0	26.1	22.3	18.6	17.4	21.5	25.0	26.6	19.9	23.5

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	304.0	513.6	578.8	632.0	435.2	368.8	337.2	299.2	2,014.8	3,468.8
Delay	0.7	2.7	3.3	5.7	1.8	1.5	0.8	0.4	3.1	2.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	2.7	3.3	5.7	1.8	1.5	0.8	0.4	3.1	2.2
Mean Queue	0.0	0.1	0.2	0.4	0.1	0.0	0.0	0.0	0.2	0.1
Max Queue	0.7	2.5	2.8	4.5	1.8	1.0	0.5	0.1	2.5	1.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.2	0.4	0.1	0.0	0.0	0.0	0.2	0.1
Total Max Queue	0.7	2.5	2.8	4.5	1.8	1.0	0.5	0.1	2.5	1.8
Speed	46.4	39.2	36.1	33.1	41.7	42.8	46.2	47.9	38.4	41.3

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,029.6	1,080.4	992.8	1,088.0	1,091.6	1,018.4	977.6	875.2	4,190.8	8,153.6
Delay	75.1	93.9	132.9	123.2	177.3	198.7	140.1	93.4	158.0	132.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	93.9	132.9	123.2	177.3	198.7	140.1	93.4	158.0	132.5
Mean Queue	6.2	9.3	13.9	12.8	21.3	23.2	12.1	6.8	17.8	13.7
Max Queue	21.9	26.6	30.7	31.0	45.4	47.0	33.3	20.7	38.5	32.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.2	9.3	13.9	12.8	21.3	23.2	12.1	6.8	17.8	13.7
Total Max Queue	21.9	26.6	30.7	31.0	45.4	47.0	33.3	20.7	38.5	32.8
Speed	32.4	24.9	18.4	13.5	7.9	9.3	22.9	34.8	12.3	19.6

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	129.6	201.6	185.2	334.4	273.2	212.0	289.6	281.2	1,004.8	1,906.8
Delay	34.7	33.9	36.3	35.8	36.2	34.7	36.1	34.9	35.8	35.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	33.9	36.3	35.8	36.2	34.7	36.1	34.9	35.8	35.4
Mean Queue	0.6	0.9	1.0	1.5	1.2	1.1	1.3	1.2	1.2	1.1
Max Queue	2.8	4.0	3.9	6.7	5.7	4.7	5.2	5.1	5.3	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.9	1.0	1.5	1.2	1.1	1.3	1.2	1.2	1.1
Total Max Queue	2.8	4.0	3.9	6.7	5.7	4.7	5.2	5.1	5.3	4.8
Speed	19.4	17.5	16.2	16.7	16.6	18.5	16.3	16.5	17.0	17.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	391.2	389.6	375.6	369.6	424.4	421.6	416.0	384.8	1,591.2	3,172.8
Delay	10.1	8.7	9.8	10.0	10.2	10.2	9.2	9.5	10.1	9.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	8.7	9.8	10.0	10.2	10.2	9.2	9.5	10.1	9.8
Mean Queue	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4
Max Queue	3.5	3.1	2.8	3.2	3.4	2.9	3.8	2.8	3.1	3.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4
Total Max Queue	3.5	3.1	2.8	3.2	3.4	2.9	3.8	2.8	3.1	3.2
Speed	51.0	53.0	51.7	50.6	51.5	50.6	52.7	53.2	51.1	51.7

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	745.2	638.4	730.8	721.2	648.0	728.4	714.8	747.2	2,828.4	5,674.0
Delay	17.3	16.0	17.0	15.6	15.9	17.8	17.9	17.2	16.6	16.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	16.0	17.0	15.6	15.9	17.8	17.9	17.2	16.6	16.8
Mean Queue	1.3	1.0	1.2	1.1	1.0	1.4	1.3	1.4	1.2	1.2
Max Queue	14.4	7.8	12.0	9.5	6.3	13.0	11.3	10.3	10.2	10.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.0	1.2	1.1	1.0	1.4	1.3	1.4	1.2	1.2
Total Max Queue	14.4	7.8	12.0	9.5	6.3	13.0	11.3	10.3	10.2	10.5
Speed	49.1	50.1	49.3	49.7	50.3	49.1	48.6	49.5	49.6	49.5

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	492.4	480.4	547.6	533.6	533.6	577.2	591.2	534.0	2,192.0	4,290.0
Delay	16.4	15.9	17.6	16.2	17.8	17.4	17.3	17.6	17.2	17.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.4	15.9	17.6	16.2	17.8	17.4	17.3	17.6	17.2	17.0
Mean Queue	0.7	0.7	0.8	0.7	0.8	0.9	0.8	0.8	0.8	0.8
Max Queue	3.3	2.9	3.6	3.3	3.9	3.6	3.8	3.3	3.6	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.8	0.7	0.8	0.9	0.8	0.8	0.8	0.8
Total Max Queue	3.3	2.9	3.6	3.3	3.9	3.6	3.8	3.3	3.6	3.5
Speed	25.4	25.6	24.0	25.4	23.4	23.8	24.0	24.0	24.1	24.4

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	616.4	555.6	622.4	677.6	560.8	623.6	569.6	536.4	2,484.4	4,762.4
Delay	40.2	40.9	42.0	39.7	41.7	40.7	39.8	41.1	41.0	40.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	40.9	42.0	39.7	41.7	40.7	39.8	41.1	41.0	40.8
Mean Queue	3.0	3.2	2.9	3.2	3.3	2.8	2.7	3.1	3.1	3.0
Max Queue	10.7	10.5	9.9	10.5	10.6	9.9	8.9	10.6	10.2	10.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	3.2	2.9	3.2	3.3	2.8	2.7	3.1	3.1	3.0
Total Max Queue	10.7	10.5	9.9	10.5	10.6	9.9	8.9	10.6	10.2	10.2
Speed	33.9	32.5	32.3	33.5	32.9	34.0	34.6	32.6	33.1	33.2

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	268.8	269.6	250.4	276.0	278.0	283.2	343.2	233.6	1,087.6	2,202.8
Delay	0.3	0.3	0.3	0.5	0.5	0.6	0.8	0.3	0.5	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.3	0.3	0.5	0.5	0.6	0.8	0.3	0.5	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.0	0.0	0.3	0.4	0.2	0.4	0.1	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.0	0.0	0.3	0.4	0.2	0.4	0.1	0.2	0.2
Speed	49.4	49.8	50.0	48.7	48.6	48.2	47.5	49.9	48.9	49.0

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	640.0	633.6	680.4	669.6	640.0	663.6	614.0	768.8	2,653.6	5,310.0
Delay	62.2	65.3	61.4	62.7	65.5	58.6	65.6	66.2	62.0	63.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.2	65.3	61.4	62.7	65.5	58.6	65.6	66.2	62.0	63.3
Mean Queue	2.7	2.8	3.1	2.6	2.9	2.8	2.6	3.6	2.8	2.9
Max Queue	11.0	9.7	11.4	10.1	10.4	10.2	10.9	12.8	10.5	10.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.8	3.1	2.6	2.9	2.8	2.6	3.6	2.8	2.9
Total Max Queue	11.0	9.7	11.4	10.1	10.4	10.2	10.9	12.8	10.5	10.8
Speed	46.3	47.9	44.0	46.5	46.7	47.8	45.3	43.4	46.2	46.0

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	327.6	278.8	240.4	296.4	292.8	240.4	287.6	219.6	1,070.0	2,183.6
Delay	34.5	37.0	36.2	34.0	34.6	36.7	36.1	34.8	35.4	35.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	37.0	36.2	34.0	34.6	36.7	36.1	34.8	35.4	35.5
Mean Queue	1.4	1.3	1.3	1.2	1.3	1.3	1.2	1.0	1.2	1.2
Max Queue	6.0	5.1	5.2	5.0	5.2	5.0	5.2	4.3	5.1	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.3	1.3	1.2	1.3	1.3	1.2	1.0	1.2	1.2
Total Max Queue	6.0	5.1	5.2	5.0	5.2	5.0	5.2	4.3	5.1	5.1
Speed	17.3	16.7	16.2	17.6	17.0	16.2	16.7	17.2	16.8	16.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	458.8	589.6	484.8	492.4	426.0	464.8	500.4	500.4	1,868.0	3,917.2
Delay	20.6	26.8	56.0	35.5	25.5	63.1	139.3	126.1	45.0	59.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	26.8	56.0	35.5	25.5	63.1	139.3	126.1	45.0	59.8
Mean Queue	1.1	2.0	3.4	2.1	1.3	4.6	10.1	7.0	2.8	3.8
Max Queue	5.4	7.3	8.4	7.5	5.5	13.1	17.6	13.5	8.6	9.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	2.0	3.4	2.1	1.3	4.6	10.1	7.0	2.8	3.8
Total Max Queue	5.4	7.3	8.4	7.5	5.5	13.1	17.6	13.5	8.6	9.7
Speed	39.3	34.6	28.4	31.7	35.3	23.0	14.3	23.8	29.6	28.9

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	960.8	882.0	941.6	790.8	773.6	904.4	894.8	773.2	3,410.4	6,921.2
Delay	17.5	17.9	21.0	16.3	15.9	18.3	19.1	16.0	17.9	17.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	17.9	21.0	16.3	15.9	18.3	19.1	16.0	17.9	17.8
Mean Queue	1.7	1.7	2.3	1.4	1.2	1.9	1.8	1.1	1.7	1.6
Max Queue	17.7	13.9	17.7	12.4	8.3	15.0	14.7	9.1	13.4	13.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.7	2.3	1.4	1.2	1.9	1.8	1.1	1.7	1.6
Total Max Queue	17.7	13.9	17.7	12.4	8.3	15.0	14.7	9.1	13.4	13.6
Speed	47.2	47.5	46.1	48.4	49.3	47.3	47.7	49.9	47.8	47.9

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	692.4	672.0	754.0	710.8	704.0	697.6	743.6	664.0	2,866.4	5,638.4
Delay	17.9	17.7	19.6	19.0	18.2	18.7	19.5	19.0	18.9	18.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	17.7	19.6	19.0	18.2	18.7	19.5	19.0	18.9	18.7
Mean Queue	1.0	1.0	1.2	1.1	1.1	1.1	1.2	1.0	1.1	1.1
Max Queue	5.1	4.4	4.8	4.8	4.5	4.5	4.7	4.8	4.7	4.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.0	1.2	1.1	1.1	1.1	1.2	1.0	1.1	1.1
Total Max Queue	5.1	4.4	4.8	4.8	4.5	4.5	4.7	4.8	4.7	4.7
Speed	23.4	24.2	22.3	22.6	22.9	23.1	21.8	22.7	22.7	22.9

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	674.8	595.6	842.4	781.6	643.2	731.2	691.2	556.4	2,998.4	5,516.4
Delay	40.0	40.9	44.2	42.3	41.3	42.8	40.6	41.3	42.7	41.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	40.9	44.2	42.3	41.3	42.8	40.6	41.3	42.7	41.8
Mean Queue	3.3	3.4	4.2	3.9	3.6	3.6	3.3	3.2	3.8	3.6
Max Queue	11.1	11.0	14.4	11.9	12.3	12.9	10.7	10.1	12.9	11.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.3	3.4	4.2	3.9	3.6	3.6	3.3	3.2	3.8	3.6
Total Max Queue	11.1	11.0	14.4	11.9	12.3	12.9	10.7	10.1	12.9	11.9
Speed	33.2	32.2	30.0	30.9	32.4	31.5	33.0	33.3	31.2	31.9

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	320.0	305.6	330.4	375.6	432.8	391.6	276.8	286.8	1,530.4	2,719.6
Delay	0.5	0.5	0.8	0.9	0.8	0.8	0.4	0.5	0.8	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.5	0.8	0.9	0.8	0.8	0.4	0.5	0.8	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.4	0.3	0.6	0.8	0.5	0.1	0.2	0.6	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.4	0.3	0.6	0.8	0.5	0.1	0.2	0.6	0.5
Speed	47.3	47.5	45.2	44.5	45.6	45.2	47.8	47.4	45.1	46.2

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,013.6	1,031.6	939.6	1,060.8	1,027.2	962.8	1,082.4	988.8	3,990.4	8,106.8
Delay	105.7	121.6	145.6	222.0	323.5	356.4	347.1	194.3	261.9	230.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.7	121.6	145.6	222.0	323.5	356.4	347.1	194.3	261.9	230.9
Mean Queue	10.1	11.9	15.3	26.9	39.5	44.5	41.0	18.5	31.6	26.6
Max Queue	28.1	28.8	31.4	54.8	70.8	76.1	75.2	49.2	58.3	52.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	10.1	11.9	15.3	26.9	39.5	44.5	41.0	18.5	31.6	26.6
Total Max Queue	28.1	28.8	31.4	54.8	70.8	76.1	75.2	49.2	58.3	52.5
Speed	23.4	18.7	13.7	6.0	4.0	4.1	4.3	14.4	6.9	10.6

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	638.8	688.0	655.6	746.4	939.2	751.2	888.8	679.6	3,092.4	5,987.6
Delay	37.7	37.5	39.1	40.5	59.4	90.2	89.4	54.0	57.3	56.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.7	37.5	39.1	40.5	59.4	90.2	89.4	54.0	57.3	56.1
Mean Queue	2.9	3.2	3.9	3.4	9.9	14.8	13.3	5.1	8.0	7.2
Max Queue	11.3	12.7	15.9	14.3	41.8	47.3	42.4	25.2	29.8	26.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	3.2	3.9	3.4	9.9	14.8	13.3	5.1	8.0	7.2
Total Max Queue	11.3	12.7	15.9	14.3	41.8	47.3	42.4	25.2	29.8	26.7
Speed	17.9	18.5	19.5	19.2	24.9	21.1	21.6	18.2	21.2	20.2

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	486.4	510.0	477.2	441.2	396.0	411.2	366.4	377.6	1,725.6	3,466.0
Delay	12.6	22.4	73.1	112.5	41.2	18.1	19.8	15.9	61.2	41.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	22.4	73.1	112.5	41.2	18.1	19.8	15.9	61.2	41.9
Mean Queue	0.6	1.3	5.0	6.4	1.6	0.8	0.9	0.6	3.5	2.3
Max Queue	4.0	5.5	11.2	13.3	6.5	3.4	4.9	3.6	8.6	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	1.3	5.0	6.4	1.6	0.8	0.9	0.6	3.5	2.3
Total Max Queue	4.0	5.5	11.2	13.3	6.5	3.4	4.9	3.6	8.6	6.8
Speed	47.3	36.2	18.7	16.6	32.9	40.2	39.9	44.3	27.1	33.7

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	518.4	601.6	769.6	724.8	702.0	668.0	609.6	671.2	2,864.4	5,265.2
Delay	18.3	20.0	47.1	63.2	24.9	19.3	21.2	18.0	38.6	30.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	20.0	47.1	63.2	24.9	19.3	21.2	18.0	38.6	30.1
Mean Queue	1.3	1.7	5.9	7.0	2.4	1.6	1.7	1.5	4.2	3.0
Max Queue	12.0	13.7	21.2	21.6	15.7	14.4	13.9	12.1	18.2	15.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.7	5.9	7.0	2.4	1.6	1.7	1.5	4.2	3.0
Total Max Queue	12.0	13.7	21.2	21.6	15.7	14.4	13.9	12.1	18.2	15.9
Speed	49.3	49.0	39.5	36.3	46.7	48.2	48.6	49.1	42.7	45.5

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	854.8	971.6	1,189.6	1,054.0	879.6	1,026.8	932.8	737.6	4,150.0	7,646.8
Delay	21.2	23.6	32.7	27.8	23.4	20.0	20.8	17.7	26.0	23.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	23.6	32.7	27.8	23.4	20.0	20.8	17.7	26.0	23.7
Mean Queue	1.5	2.0	3.2	2.4	1.7	1.8	1.5	1.1	2.3	1.9
Max Queue	6.5	7.3	8.3	7.6	6.5	6.3	5.8	4.8	7.2	6.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	2.0	3.2	2.4	1.7	1.8	1.5	1.1	2.3	1.9
Total Max Queue	6.5	7.3	8.3	7.6	6.5	6.3	5.8	4.8	7.2	6.7
Speed	20.3	19.7	15.3	17.0	19.4	21.1	20.3	23.7	18.2	19.4

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	758.0	893.2	1,102.8	1,052.8	958.8	1,089.2	987.2	741.2	4,203.6	7,583.2
Delay	40.9	73.7	100.0	154.5	219.0	128.0	57.2	45.3	150.4	107.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	73.7	100.0	154.5	219.0	128.0	57.2	45.3	150.4	107.7
Mean Queue	3.7	9.4	13.7	22.3	26.2	13.4	6.2	4.6	18.9	13.2
Max Queue	12.6	23.0	29.9	41.0	43.1	33.5	18.6	13.5	36.9	28.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	9.4	13.7	22.3	26.2	13.4	6.2	4.6	18.9	13.2
Total Max Queue	12.6	23.0	29.9	41.0	43.1	33.5	18.6	13.5	36.9	28.0
Speed	32.5	20.1	15.1	8.8	7.0	15.1	24.8	29.3	11.5	18.2

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	314.4	518.8	574.0	604.4	456.4	372.4	337.2	308.0	2,007.2	3,485.6
Delay	1.0	3.4	5.9	9.9	3.5	2.6	1.0	0.9	5.5	3.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	3.4	5.9	9.9	3.5	2.6	1.0	0.9	5.5	3.7
Mean Queue	0.0	0.2	0.4	0.7	0.1	0.1	0.0	0.0	0.3	0.2
Max Queue	1.2	2.6	4.1	5.2	2.5	1.7	0.6	0.5	3.4	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.2	0.4	0.7	0.1	0.1	0.0	0.0	0.3	0.2
Total Max Queue	1.2	2.6	4.1	5.2	2.5	1.7	0.6	0.5	3.4	2.4
Speed	44.2	36.8	31.7	26.9	36.4	39.0	43.9	45.2	33.5	37.5

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,072.8	1,118.0	998.0	1,098.4	1,108.4	1,006.8	1,147.6	1,023.6	4,211.6	8,573.6
Delay	88.7	95.8	148.9	189.5	292.1	334.7	295.4	201.3	241.3	209.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.7	95.8	148.9	189.5	292.1	334.7	295.4	201.3	241.3	209.7
Mean Queue	8.4	9.8	17.2	21.7	38.5	43.8	35.6	21.7	30.3	25.2
Max Queue	23.6	26.8	37.0	51.7	71.9	75.7	73.0	47.3	59.1	51.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.4	9.8	17.2	21.7	38.5	43.8	35.6	21.7	30.3	25.2
Total Max Queue	23.6	26.8	37.0	51.7	71.9	75.7	73.0	47.3	59.1	51.8
Speed	24.6	22.3	13.0	7.4	4.4	4.3	6.4	15.6	7.3	11.7

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	222.4	278.0	322.0	471.2	384.4	335.6	387.6	335.2	1,513.2	2,736.4
Delay	33.8	33.4	34.9	35.0	34.5	33.5	35.1	36.2	34.5	34.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.8	33.4	34.9	35.0	34.5	33.5	35.1	36.2	34.5	34.5
Mean Queue	0.9	1.2	1.7	1.9	1.6	1.6	1.6	1.5	1.7	1.5
Max Queue	4.7	5.2	6.0	7.0	6.3	6.4	6.3	5.5	6.4	6.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.2	1.7	1.9	1.6	1.6	1.6	1.5	1.7	1.5
Total Max Queue	4.7	5.2	6.0	7.0	6.3	6.4	6.3	5.5	6.4	6.0
Speed	18.3	17.3	17.2	17.0	17.6	18.0	18.1	16.9	17.5	17.5

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	426.8	422.0	426.8	428.0	465.2	458.0	442.8	470.0	1,778.0	3,539.6
Delay	14.9	10.5	13.2	14.4	15.6	14.4	12.7	13.7	14.4	13.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	10.5	13.2	14.4	15.6	14.4	12.7	13.7	14.4	13.8
Mean Queue	0.7	0.4	0.6	0.6	0.8	0.7	0.6	0.7	0.7	0.6
Max Queue	4.8	3.5	3.5	5.2	4.4	4.3	4.5	4.4	4.4	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.4	0.6	0.6	0.8	0.7	0.6	0.7	0.7	0.6
Total Max Queue	4.8	3.5	3.5	5.2	4.4	4.3	4.5	4.4	4.4	4.3
Speed	44.5	49.9	46.7	44.8	44.5	45.9	47.0	46.6	45.5	46.2

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	756.4	658.8	738.4	758.8	676.8	726.8	760.8	812.0	2,900.8	5,888.8
Delay	16.3	15.8	15.7	15.6	16.4	16.2	17.2	16.9	16.0	16.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	15.8	15.7	15.6	16.4	16.2	17.2	16.9	16.0	16.2
Mean Queue	1.2	1.1	1.0	1.2	1.1	1.2	1.3	1.5	1.1	1.2
Max Queue	13.2	8.4	8.1	12.4	7.9	10.9	10.5	13.3	9.8	10.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.0	1.2	1.1	1.2	1.3	1.5	1.1	1.2
Total Max Queue	13.2	8.4	8.1	12.4	7.9	10.9	10.5	13.3	9.8	10.5
Speed	49.0	49.6	49.8	49.3	49.7	49.8	48.7	49.1	49.6	49.4

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	540.8	552.8	576.4	630.8	637.2	606.4	598.8	582.8	2,450.8	4,726.0
Delay	17.3	17.4	17.8	17.7	18.0	18.3	17.4	18.4	17.9	17.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	17.4	17.8	17.7	18.0	18.3	17.4	18.4	17.9	17.8
Mean Queue	0.8	0.8	0.8	0.9	1.0	0.9	0.8	0.9	0.9	0.9
Max Queue	4.0	3.6	3.6	3.8	3.9	4.2	3.9	3.8	3.9	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.8	0.8	0.9	1.0	0.9	0.8	0.9	0.9	0.9
Total Max Queue	4.0	3.6	3.6	3.8	3.9	4.2	3.9	3.8	3.9	3.9
Speed	24.2	24.2	23.6	23.7	23.5	22.8	23.5	23.9	23.4	23.6

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	702.0	626.4	692.0	756.0	646.8	733.2	646.0	627.6	2,828.0	5,430.0
Delay	41.4	39.9	41.2	41.6	40.8	41.3	42.9	41.3	41.2	41.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	39.9	41.2	41.6	40.8	41.3	42.9	41.3	41.2	41.3
Mean Queue	3.5	3.4	3.2	3.8	3.6	3.4	3.4	3.6	3.5	3.5
Max Queue	11.4	10.9	10.7	12.3	12.0	11.4	11.2	12.1	11.6	11.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	3.4	3.2	3.8	3.6	3.4	3.4	3.6	3.5	3.5
Total Max Queue	11.4	10.9	10.7	12.3	12.0	11.4	11.2	12.1	11.6	11.5
Speed	32.4	33.2	32.3	32.4	32.2	32.1	32.1	32.9	32.2	32.4

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	289.6	270.4	240.0	280.8	286.0	295.6	347.6	261.6	1,102.4	2,271.6
Delay	0.4	0.4	0.4	0.8	0.4	0.6	0.7	0.6	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.4	0.4	0.8	0.4	0.6	0.7	0.6	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.3	0.2	0.1	0.2	0.3	0.2	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.3	0.2	0.1	0.2	0.3	0.2	0.2	0.2
Speed	48.3	48.5	48.8	47.0	48.4	47.2	47.1	47.5	47.8	47.8

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	700.0	690.0	753.2	739.6	644.4	699.2	704.0	782.8	2,836.4	5,713.2
Delay	62.0	64.3	68.3	64.6	66.6	61.9	67.4	67.4	65.3	65.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	64.3	68.3	64.6	66.6	61.9	67.4	67.4	65.3	65.3
Mean Queue	3.1	3.1	4.2	3.1	3.0	3.1	3.4	3.8	3.3	3.3
Max Queue	12.9	11.4	15.5	13.1	11.7	10.4	13.1	13.4	12.7	12.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	3.1	4.2	3.1	3.0	3.1	3.4	3.8	3.3	3.3
Total Max Queue	12.9	11.4	15.5	13.1	11.7	10.4	13.1	13.4	12.7	12.7
Speed	43.8	45.4	38.6	43.3	45.7	46.9	41.4	42.8	43.6	43.5

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	446.4	420.0	357.6	448.8	448.4	367.6	444.8	392.8	1,622.4	3,326.4
Delay	36.2	35.8	37.7	35.4	36.0	35.7	35.7	37.1	36.2	36.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	35.8	37.7	35.4	36.0	35.7	35.7	37.1	36.2	36.2
Mean Queue	1.9	1.9	2.0	1.8	2.0	1.9	1.8	1.8	1.9	1.9
Max Queue	7.1	6.9	6.7	7.3	6.8	6.6	6.7	6.7	6.9	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.9	2.0	1.8	2.0	1.9	1.8	1.8	1.9	1.9
Total Max Queue	7.1	6.9	6.7	7.3	6.8	6.6	6.7	6.7	6.9	6.9
Speed	16.9	17.0	15.5	16.9	16.7	17.4	17.3	15.9	16.6	16.7

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-02 Newport Interchange

Arm Reference:	A
Name	A66 Southbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	481.2	546.0	473.6	481.2	511.6	462.0	476.4	527.6	1,928.4	3,959.6
Delay	51.3	92.2	237.6	266.6	239.6	83.5	144.2	154.7	206.8	164.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	92.2	237.6	266.6	239.6	83.5	144.2	154.7	206.8	164.1
Mean Queue	3.3	8.0	18.1	17.2	12.7	5.0	10.2	10.2	13.2	10.9
Max Queue	9.9	18.3	25.8	24.2	23.5	11.9	17.9	19.3	21.4	19.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.3	8.0	18.1	17.2	12.7	5.0	10.2	10.2	13.2	10.9
Total Max Queue	9.9	18.3	25.8	24.2	23.5	11.9	17.9	19.3	21.4	19.1
Speed	26.4	15.7	5.7	6.9	10.7	20.3	10.6	13.1	10.9	13.4

Arm Reference:	B
Name	Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	994.4	909.2	1,009.2	930.0	944.8	1,016.8	964.4	850.0	3,900.8	7,618.8
Delay	21.5	20.1	22.7	23.7	25.1	28.1	31.5	16.1	24.9	23.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	20.1	22.7	23.7	25.1	28.1	31.5	16.1	24.9	23.7
Mean Queue	2.5	2.1	2.8	2.8	3.0	3.9	4.0	1.4	3.1	2.8
Max Queue	20.5	15.6	18.1	17.8	19.2	20.7	20.2	13.4	19.0	18.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	2.1	2.8	2.8	3.0	3.9	4.0	1.4	3.1	2.8
Total Max Queue	20.5	15.6	18.1	17.8	19.2	20.7	20.2	13.4	19.0	18.3
Speed	45.3	47.1	45.5	45.0	44.7	42.9	42.3	49.2	44.5	45.1

Arm Reference:	C
Name	A1032 Acklam Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	765.2	725.2	814.0	772.0	737.6	760.4	809.6	718.0	3,084.0	6,102.0
Delay	17.9	19.0	21.7	18.4	22.0	20.3	20.7	19.7	20.6	20.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	19.0	21.7	18.4	22.0	20.3	20.7	19.7	20.6	20.0
Mean Queue	1.1	1.2	1.4	1.2	1.4	1.4	1.3	1.2	1.3	1.3
Max Queue	5.4	5.2	5.9	5.1	5.9	5.4	4.9	5.3	5.6	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.4	1.2	1.4	1.4	1.3	1.2	1.3	1.3
Total Max Queue	5.4	5.2	5.9	5.1	5.9	5.4	4.9	5.3	5.6	5.4
Speed	23.8	22.5	20.4	22.4	21.0	21.2	20.7	22.8	21.2	21.8

Arm Reference:	D
Name	A66 Northbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	704.0	665.6	950.8	847.6	662.4	790.4	803.2	617.2	3,251.2	6,041.2
Delay	40.7	41.1	44.9	43.0	42.6	41.9	41.3	42.6	43.1	42.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	41.1	44.9	43.0	42.6	41.9	41.3	42.6	43.1	42.4
Mean Queue	3.5	3.8	4.9	4.3	3.9	3.7	3.9	3.7	4.2	4.0
Max Queue	11.6	11.9	15.6	13.6	12.6	12.7	12.6	11.7	13.6	12.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	3.8	4.9	4.3	3.9	3.7	3.9	3.7	4.2	4.0
Total Max Queue	11.6	11.9	15.6	13.6	12.6	12.7	12.6	11.7	13.6	12.9
Speed	32.9	32.5	29.0	30.8	31.6	31.9	31.8	31.8	30.8	31.5

Arm Reference:	E
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	314.8	309.6	352.4	369.6	433.2	404.4	297.2	321.6	1,559.6	2,802.8
Delay	0.6	0.6	1.2	1.4	3.1	2.0	0.6	0.7	1.9	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.6	1.2	1.4	3.1	2.0	0.6	0.7	1.9	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
Max Queue	0.4	0.3	0.7	1.1	2.3	1.7	0.3	0.6	1.5	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
Total Max Queue	0.4	0.3	0.7	1.1	2.3	1.7	0.3	0.6	1.5	1.0
Speed	46.7	46.1	43.0	43.2	40.3	40.6	46.5	46.6	41.8	43.9

Arm Reference:	F
Name	A1032 Newport Bridge Approach

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,029.6	1,072.8	958.8	1,064.4	1,016.4	934.8	1,071.2	1,078.8	3,974.4	8,226.8
Delay	141.2	164.4	192.8	291.3	382.8	384.0	396.3	350.7	312.7	290.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	141.2	164.4	192.8	291.3	382.8	384.0	396.3	350.7	312.7	290.7
Mean Queue	14.8	18.1	21.9	36.7	46.9	48.1	49.7	44.1	38.4	35.4
Max Queue	33.6	35.9	44.5	70.8	76.3	78.7	79.7	75.1	67.6	62.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	14.8	18.1	21.9	36.7	46.9	48.1	49.7	44.1	38.4	35.4
Total Max Queue	33.6	35.9	44.5	70.8	76.3	78.7	79.7	75.1	67.6	62.5
Speed	15.0	12.3	9.3	4.5	3.9	4.2	4.1	5.8	5.5	7.2

Arm Reference:	G
Name	Ironmasters Way

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	863.6	876.8	716.4	868.8	914.0	772.4	955.6	964.8	3,271.6	6,932.4
Delay	46.5	48.0	85.4	159.2	192.4	199.1	244.2	227.3	159.0	151.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	48.0	85.4	159.2	192.4	199.1	244.2	227.3	159.0	151.2
Mean Queue	5.8	5.8	14.8	27.1	38.7	39.4	51.2	45.3	30.0	28.7
Max Queue	26.7	24.4	53.3	67.2	102.4	95.8	105.1	100.3	79.7	72.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.8	5.8	14.8	27.1	38.7	39.4	51.2	45.3	30.0	28.7
Total Max Queue	26.7	24.4	53.3	67.2	102.4	95.8	105.1	100.3	79.7	72.8
Speed	22.1	20.9	19.6	20.1	22.8	22.8	22.0	23.2	21.3	21.6

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J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	238.4	294.4	248.0	305.6	301.2	342.4	417.6	429.6	1,197.2	2,577.2
Delay	23.1	22.2	28.7	28.1	30.5	30.5	29.0	29.9	29.5	27.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	22.2	28.7	28.1	30.5	30.5	29.0	29.9	29.5	27.9
Mean Queue	0.7	0.9	0.9	1.1	1.2	1.4	1.5	1.7	1.1	1.2
Max Queue	2.8	3.6	3.3	3.9	4.4	5.3	5.5	5.6	4.2	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.9	0.9	1.1	1.2	1.4	1.5	1.7	1.1	1.2
Total Max Queue	2.8	3.6	3.3	3.9	4.4	5.3	5.5	5.6	4.2	4.3
Speed	18.3	20.7	18.4	19.9	19.7	20.9	20.9	21.3	19.7	20.0

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	354.0	425.6	422.8	398.0	419.2	373.6	374.4	421.2	1,613.6	3,188.8
Delay	3.3	4.0	5.6	6.3	6.4	16.5	21.1	40.8	8.7	12.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.3	4.0	5.6	6.3	6.4	16.5	21.1	40.8	8.7	12.5
Mean Queue	0.1	0.2	0.2	0.2	0.3	0.7	1.4	2.0	0.4	0.6
Max Queue	2.1	1.9	2.0	2.5	2.4	4.1	5.0	5.6	2.8	3.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.3	0.7	1.4	2.0	0.4	0.6
Total Max Queue	2.1	1.9	2.0	2.5	2.4	4.1	5.0	5.6	2.8	3.2
Speed	58.0	54.0	46.6	45.2	45.8	39.3	35.4	33.0	44.2	44.6

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	234.0	306.8	338.8	396.0	450.0	424.4	467.2	498.8	1,609.2	3,116.0
Delay	1.4	1.7	1.5	1.3	1.5	5.5	9.1	8.3	2.5	3.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.7	1.5	1.3	1.5	5.5	9.1	8.3	2.5	3.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.3	0.1	0.1
Max Queue	1.1	0.6	0.9	0.8	1.2	1.9	2.1	2.1	1.2	1.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.3	0.1	0.1
Total Max Queue	1.1	0.6	0.9	0.8	1.2	1.9	2.1	2.1	1.2	1.3
Speed	52.5	52.3	53.2	52.6	52.5	51.4	50.8	51.0	52.4	52.1

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	817.6	984.8	1,096.0	1,214.4	1,297.6	1,303.2	1,194.8	1,068.0	4,911.2	8,976.4
Delay	24.2	26.8	31.7	38.6	69.1	68.5	49.9	45.5	52.0	45.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	26.8	31.7	38.6	69.1	68.5	49.9	45.5	52.0	45.1
Mean Queue	2.2	2.9	3.9	5.5	10.8	9.9	7.1	5.4	7.5	6.1
Max Queue	9.3	10.6	13.2	17.7	24.7	25.2	21.2	14.3	20.2	17.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.9	3.9	5.5	10.8	9.9	7.1	5.4	7.5	6.1
Total Max Queue	9.3	10.6	13.2	17.7	24.7	25.2	21.2	14.3	20.2	17.4
Speed	38.6	36.6	33.0	29.9	20.8	21.2	30.1	33.3	26.2	30.0

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J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	600.4	536.0	586.0	514.0	549.6	559.2	437.6	515.2	2,208.8	4,298.0
Delay	16.8	18.1	18.0	18.6	18.5	17.9	17.7	18.2	18.3	18.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.8	18.1	18.0	18.6	18.5	17.9	17.7	18.2	18.3	18.0
Mean Queue	1.3	1.2	1.3	1.2	1.2	1.2	1.0	1.2	1.2	1.2
Max Queue	5.9	6.3	5.8	5.6	5.4	6.0	4.9	5.2	5.7	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.2	1.3	1.2	1.2	1.2	1.0	1.2	1.2	1.2
Total Max Queue	5.9	6.3	5.8	5.6	5.4	6.0	4.9	5.2	5.7	5.6
Speed	24.4	24.0	24.1	23.9	24.3	24.4	24.3	24.5	24.2	24.2

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	345.2	399.6	283.2	298.8	334.8	315.2	370.0	320.0	1,232.0	2,666.8
Delay	7.3	5.8	6.0	6.5	6.0	6.0	6.0	5.6	6.1	6.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	5.8	6.0	6.5	6.0	6.0	6.0	5.6	6.1	6.1
Mean Queue	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.3
Max Queue	2.4	1.9	1.9	1.9	1.8	2.0	2.3	3.7	1.9	2.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.2	0.3
Total Max Queue	2.4	1.9	1.9	1.9	1.8	2.0	2.3	3.7	1.9	2.2
Speed	39.7	45.4	46.0	43.3	45.0	43.1	44.8	46.4	44.4	44.2

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	830.4	881.6	879.2	934.8	954.0	918.8	901.2	892.8	3,686.8	7,192.8
Delay	2.2	2.8	4.1	14.1	17.6	8.4	4.7	3.0	11.0	7.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	2.8	4.1	14.1	17.6	8.4	4.7	3.0	11.0	7.5
Mean Queue	0.1	0.1	0.2	1.3	1.4	0.6	0.2	0.5	0.9	0.6
Max Queue	1.8	2.4	2.5	5.3	5.9	4.2	3.0	2.7	4.5	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.2	1.3	1.4	0.6	0.2	0.5	0.9	0.6
Total Max Queue	1.8	2.4	2.5	5.3	5.9	4.2	3.0	2.7	4.5	3.6
Speed	52.3	52.1	51.8	47.5	45.0	49.9	51.0	52.1	48.6	50.0

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	578.4	590.0	646.0	690.0	702.4	620.8	647.2	545.6	2,659.2	5,020.4
Delay	26.6	26.6	26.5	27.1	26.8	26.7	27.0	26.8	26.7	26.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	26.6	26.5	27.1	26.8	26.7	27.0	26.8	26.7	26.7
Mean Queue	1.8	1.8	2.0	2.2	2.2	1.9	2.0	2.5	2.1	2.1
Max Queue	6.7	6.7	6.5	7.4	7.3	6.3	6.8	8.2	6.9	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.8	2.0	2.2	2.2	1.9	2.0	2.5	2.1	2.1
Total Max Queue	6.7	6.7	6.5	7.4	7.3	6.3	6.8	8.2	6.9	7.0
Speed	37.8	38.2	38.4	38.0	37.7	38.2	38.7	38.3	38.1	38.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,029.2	748.4	866.8	865.2	1,250.8	1,121.2	890.0	599.2	4,104.0	7,370.8
Delay	19.8	19.6	20.6	20.3	21.8	21.1	19.4	24.3	21.0	20.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	19.6	20.6	20.3	21.8	21.1	19.4	24.3	21.0	20.9
Mean Queue	2.4	1.7	2.1	2.1	3.0	2.6	2.0	2.0	2.5	2.3
Max Queue	9.9	8.6	8.5	8.4	10.1	10.0	9.0	7.2	9.3	9.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	1.7	2.1	2.1	3.0	2.6	2.0	2.0	2.5	2.3
Total Max Queue	9.9	8.6	8.5	8.4	10.1	10.0	9.0	7.2	9.3	9.0
Speed	21.9	20.9	21.1	21.5	21.3	21.5	21.6	19.8	21.4	21.2

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	284.8	196.4	218.8	216.8	187.6	136.4	208.0	182.8	759.6	1,631.6
Delay	10.6	7.6	9.2	8.8	12.6	10.0	8.4	7.9	10.1	9.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	7.6	9.2	8.8	12.6	10.0	8.4	7.9	10.1	9.5
Mean Queue	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.6	0.2	0.3
Max Queue	2.8	1.7	2.3	2.0	1.9	1.5	1.9	2.3	1.9	2.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.6	0.2	0.3
Total Max Queue	2.8	1.7	2.3	2.0	1.9	1.5	1.9	2.3	1.9	2.0
Speed	36.8	44.2	40.3	42.2	33.0	39.9	42.3	49.1	38.9	40.7

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,073.2	978.0	996.4	939.2	1,245.2	1,109.2	1,088.0	884.0	4,290.0	8,313.2
Delay	7.5	4.6	4.1	5.0	8.3	7.0	5.9	3.3	6.1	5.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	4.6	4.1	5.0	8.3	7.0	5.9	3.3	6.1	5.8
Mean Queue	0.5	0.2	0.2	0.2	0.5	0.5	0.3	0.2	0.4	0.3
Max Queue	4.8	3.8	3.1	3.2	5.2	5.0	3.5	2.4	4.1	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.2	0.2	0.2	0.5	0.5	0.3	0.2	0.4	0.3
Total Max Queue	4.8	3.8	3.1	3.2	5.2	5.0	3.5	2.4	4.1	3.9
Speed	49.6	51.1	51.2	51.4	48.7	49.3	50.8	51.7	50.2	50.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	419.2	399.6	404.4	454.0	386.4	378.8	438.4	442.4	1,623.6	3,323.2
Delay	36.2	36.3	33.5	34.3	36.9	35.6	34.4	33.1	35.1	35.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	36.3	33.5	34.3	36.9	35.6	34.4	33.1	35.1	35.0
Mean Queue	1.9	1.7	1.7	1.9	1.8	1.6	1.8	3.4	1.7	2.0
Max Queue	6.8	5.8	5.8	6.5	5.9	5.4	5.8	10.2	5.9	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.7	1.7	1.9	1.8	1.6	1.8	3.4	1.7	2.0
Total Max Queue	6.8	5.8	5.8	6.5	5.9	5.4	5.8	10.2	5.9	6.5
Speed	33.4	32.2	35.3	34.2	32.6	33.3	34.1	35.4	33.8	33.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	283.2	301.6	296.8	323.6	374.4	404.0	438.0	452.0	1,398.8	2,873.6
Delay	22.3	25.0	28.0	28.2	29.5	30.3	27.2	25.6	29.0	27.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	25.0	28.0	28.2	29.5	30.3	27.2	25.6	29.0	27.3
Mean Queue	0.8	1.0	1.1	1.2	1.4	1.6	1.5	1.4	1.3	1.3
Max Queue	3.7	4.3	4.1	4.3	5.3	5.4	5.0	5.7	4.8	4.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	1.0	1.1	1.2	1.4	1.6	1.5	1.4	1.3	1.3
Total Max Queue	3.7	4.3	4.1	4.3	5.3	5.4	5.0	5.7	4.8	4.7
Speed	20.1	20.4	18.4	20.1	21.5	19.5	20.1	21.2	19.9	20.1

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	372.4	453.6	436.4	423.6	425.6	378.8	440.4	468.0	1,664.4	3,398.8
Delay	3.7	4.7	6.2	5.8	11.4	13.0	10.0	10.4	9.1	8.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	4.7	6.2	5.8	11.4	13.0	10.0	10.4	9.1	8.2
Mean Queue	0.1	0.2	0.3	0.2	0.5	0.6	0.5	0.5	0.4	0.4
Max Queue	1.9	2.4	2.8	2.4	4.1	3.5	3.3	3.7	3.2	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.3	0.2	0.5	0.6	0.5	0.5	0.4	0.4
Total Max Queue	1.9	2.4	2.8	2.4	4.1	3.5	3.3	3.7	3.2	3.0
Speed	55.9	50.1	46.0	45.9	36.8	37.5	32.6	34.7	41.5	42.3

Arm Reference:	C
Name	B1272 Hartington Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	286.4	349.6	387.6	449.6	476.4	492.8	533.6	541.2	1,806.4	3,517.2
Delay	1.8	2.9	1.6	1.3	3.1	6.6	2.5	2.0	3.1	2.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.8	2.9	1.6	1.3	3.1	6.6	2.5	2.0	3.1	2.8
Mean Queue	0.0	0.1	0.0	0.0	0.1	0.3	0.1	0.1	0.1	0.1
Max Queue	1.1	1.4	1.1	0.9	1.5	2.0	1.3	1.4	1.4	1.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.0	0.0	0.1	0.3	0.1	0.1	0.1	0.1
Total Max Queue	1.1	1.4	1.1	0.9	1.5	2.0	1.3	1.4	1.4	1.3
Speed	52.4	52.7	53.0	53.0	52.5	50.7	52.5	52.0	52.3	52.3

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	811.6	973.6	1,146.0	1,196.0	1,386.8	1,366.8	1,259.2	1,019.2	5,095.6	9,159.2
Delay	23.9	32.7	35.4	46.1	65.9	65.7	35.8	27.6	53.3	42.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	32.7	35.4	46.1	65.9	65.7	35.8	27.6	53.3	42.9
Mean Queue	2.2	3.8	4.3	6.5	10.8	9.7	4.7	3.3	7.8	5.9
Max Queue	9.0	12.9	14.4	19.4	26.0	23.6	15.7	10.9	20.9	17.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	3.8	4.3	6.5	10.8	9.7	4.7	3.3	7.8	5.9
Total Max Queue	9.0	12.9	14.4	19.4	26.0	23.6	15.7	10.9	20.9	17.0
Speed	38.8	33.8	32.2	27.5	20.8	22.2	32.0	37.3	25.7	30.0

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	692.8	654.8	731.6	709.6	695.6	710.8	622.8	649.6	2,847.6	5,467.6
Delay	16.9	17.7	17.6	19.1	18.0	18.3	17.8	15.8	18.2	17.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	17.7	17.6	19.1	18.0	18.3	17.8	15.8	18.2	17.7
Mean Queue	1.5	1.4	1.6	1.7	1.5	1.6	1.3	1.3	1.6	1.5
Max Queue	7.0	6.3	7.0	7.0	7.3	6.6	6.8	6.4	7.0	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.4	1.6	1.7	1.5	1.6	1.3	1.3	1.6	1.5
Total Max Queue	7.0	6.3	7.0	7.0	7.3	6.6	6.8	6.4	7.0	6.8
Speed	25.6	26.1	25.9	25.9	26.5	25.9	25.2	26.6	26.0	26.0

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	419.2	453.2	366.8	354.0	406.8	376.0	438.0	424.8	1,503.6	3,238.8
Delay	8.3	8.2	8.1	9.0	8.0	8.1	7.3	7.7	8.3	8.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	8.2	8.1	9.0	8.0	8.1	7.3	7.7	8.3	8.1
Mean Queue	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Max Queue	3.0	2.6	2.4	2.5	2.8	2.6	2.5	2.8	2.6	2.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Max Queue	3.0	2.6	2.4	2.5	2.8	2.6	2.5	2.8	2.6	2.6
Speed	36.4	37.7	38.2	35.3	38.5	38.9	38.9	38.7	37.7	37.8

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	845.2	876.8	886.4	929.2	948.0	971.2	963.2	970.0	3,734.8	7,390.0
Delay	13.8	15.2	27.1	20.9	16.9	11.4	14.2	8.7	19.1	16.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	15.2	27.1	20.9	16.9	11.4	14.2	8.7	19.1	16.4
Mean Queue	1.0	1.3	2.3	1.8	1.4	0.9	1.1	0.6	1.6	1.3
Max Queue	5.0	6.4	6.7	7.5	6.0	6.2	6.6	4.9	6.6	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.3	2.3	1.8	1.4	0.9	1.1	0.6	1.6	1.3
Total Max Queue	5.0	6.4	6.7	7.5	6.0	6.2	6.6	4.9	6.6	6.2
Speed	47.4	45.5	41.6	43.1	44.4	47.8	46.3	49.3	44.2	45.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	656.4	656.0	723.6	769.6	800.8	704.8	718.0	638.4	2,998.8	5,667.6
Delay	26.5	27.7	25.4	27.5	26.6	25.1	25.7	26.1	26.1	26.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	27.7	25.4	27.5	26.6	25.1	25.7	26.1	26.1	26.3
Mean Queue	2.0	2.1	2.1	2.5	2.4	2.1	2.1	2.0	2.3	2.2
Max Queue	7.6	7.4	7.3	8.5	7.9	8.5	7.7	6.5	8.1	7.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	2.1	2.1	2.5	2.4	2.1	2.1	2.0	2.3	2.2
Total Max Queue	7.6	7.4	7.3	8.5	7.9	8.5	7.7	6.5	8.1	7.7
Speed	37.7	37.0	39.4	38.0	37.9	39.6	39.0	38.9	38.8	38.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name:	A178 North Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,070.4	913.6	984.4	940.4	1,269.2	1,272.8	1,047.6	800.8	4,466.8	8,299.2
Delay	18.2	19.1	19.1	20.1	19.7	19.4	18.4	18.8	19.6	19.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	19.1	19.1	20.1	19.7	19.4	18.4	18.8	19.6	19.2
Mean Queue	2.4	2.2	2.4	2.3	3.0	3.1	2.3	1.9	2.7	2.5
Max Queue	9.9	9.6	9.1	9.4	10.0	10.0	9.6	8.6	9.6	9.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.2	2.4	2.3	3.0	3.1	2.3	1.9	2.7	2.5
Total Max Queue	9.9	9.6	9.1	9.4	10.0	10.0	9.6	8.6	9.6	9.5
Speed	31.5	29.9	30.1	29.8	31.6	32.9	32.0	29.3	31.1	30.9

Arm Reference:	B
Name:	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	325.2	293.6	299.6	273.2	213.2	174.8	252.0	246.4	960.8	2,078.0
Delay	12.9	10.4	10.1	10.1	11.4	12.3	10.3	8.1	11.0	10.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	10.4	10.1	10.1	11.4	12.3	10.3	8.1	11.0	10.7
Mean Queue	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3
Max Queue	3.4	2.5	2.6	2.6	2.1	2.1	2.3	2.0	2.4	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.3	0.3
Total Max Queue	3.4	2.5	2.6	2.6	2.1	2.1	2.3	2.0	2.4	2.4
Speed	33.2	36.2	37.2	35.1	34.4	33.3	35.6	39.9	35.0	35.5

Arm Reference:	C
Name:	B1272 Hartington Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,142.4	1,053.2	1,024.0	1,030.8	1,290.8	1,196.0	1,165.6	1,044.8	4,541.6	8,947.6
Delay	7.8	6.5	5.4	5.3	7.4	8.1	7.7	4.7	6.5	6.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	6.5	5.4	5.3	7.4	8.1	7.7	4.7	6.5	6.6
Mean Queue	0.6	0.4	0.3	0.3	0.6	0.6	0.6	0.2	0.4	0.5
Max Queue	6.0	4.8	3.3	3.0	5.3	5.1	5.3	3.5	4.2	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.4	0.3	0.3	0.6	0.6	0.6	0.2	0.4	0.5
Total Max Queue	6.0	4.8	3.3	3.0	5.3	5.1	5.3	3.5	4.2	4.5
Speed	48.8	49.9	51.1	51.2	48.5	48.4	48.9	51.0	49.8	49.7

Arm Reference:	D
Name:	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	499.2	430.4	461.6	491.2	434.8	437.2	509.6	547.6	1,824.8	3,811.6
Delay	34.8	36.1	36.7	35.7	35.3	36.0	36.1	34.0	36.0	35.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	36.1	36.7	35.7	35.3	36.0	36.1	34.0	36.0	35.6
Mean Queue	2.1	1.9	2.0	2.1	1.9	1.9	2.3	2.2	2.0	2.1
Max Queue	8.3	6.5	6.7	7.1	6.5	6.5	7.1	7.2	6.7	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	1.9	2.0	2.1	1.9	1.9	2.3	2.2	2.0	2.1
Total Max Queue	8.3	6.5	6.7	7.1	6.5	6.5	7.1	7.2	6.7	7.0
Speed	34.1	32.7	33.3	32.7	33.2	33.7	32.4	34.7	33.2	33.3

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	309.6	314.0	351.2	357.6	376.0	409.2	460.4	450.0	1,494.0	3,028.0
Delay	22.5	26.5	29.2	28.0	29.6	30.0	30.9	25.6	29.2	27.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	26.5	29.2	28.0	29.6	30.0	30.9	25.6	29.2	27.9
Mean Queue	0.9	1.0	1.3	1.3	1.4	1.6	1.8	1.5	1.4	1.4
Max Queue	4.1	4.3	4.5	4.8	4.9	5.6	6.4	4.7	5.0	4.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.0	1.3	1.3	1.4	1.6	1.8	1.5	1.4	1.4
Total Max Queue	4.1	4.3	4.5	4.8	4.9	5.6	6.4	4.7	5.0	4.9
Speed	19.5	19.8	19.0	20.6	20.6	21.9	20.6	21.5	20.5	20.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	416.4	484.8	506.8	509.6	479.2	444.4	498.8	464.0	1,940.0	3,804.0
Delay	4.2	6.1	17.2	12.0	20.2	71.2	74.3	12.9	30.2	27.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.2	6.1	17.2	12.0	20.2	71.2	74.3	12.9	30.2	27.6
Mean Queue	0.2	0.4	1.0	0.6	1.3	4.7	4.1	0.6	1.9	1.6
Max Queue	2.2	3.3	4.8	4.6	5.9	13.5	12.5	4.1	7.2	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.4	1.0	0.6	1.3	4.7	4.1	0.6	1.9	1.6
Total Max Queue	2.2	3.3	4.8	4.6	5.9	13.5	12.5	4.1	7.2	6.5
Speed	51.6	48.1	36.5	36.4	30.7	23.2	23.1	29.5	31.7	34.5

Arm Reference:	C
Name	B1272 Hartington Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	349.2	404.4	443.2	458.8	532.0	498.4	564.8	544.8	1,932.4	3,795.6
Delay	2.9	5.5	10.5	6.6	23.9	38.3	16.8	1.8	19.8	14.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	5.5	10.5	6.6	23.9	38.3	16.8	1.8	19.8	14.0
Mean Queue	0.1	0.2	0.4	0.2	1.2	2.0	0.8	0.1	0.9	0.6
Max Queue	1.7	1.7	2.4	2.0	6.2	6.8	4.6	1.4	4.4	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.4	0.2	1.2	2.0	0.8	0.1	0.9	0.6
Total Max Queue	1.7	1.7	2.4	2.0	6.2	6.8	4.6	1.4	4.4	3.5
Speed	52.4	51.2	51.1	51.7	45.9	41.8	46.7	52.0	47.6	48.9

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	834.4	1,004.0	1,161.2	1,284.4	1,410.8	1,364.4	1,268.8	1,112.4	5,220.8	9,440.4
Delay	25.5	36.6	47.3	40.4	64.7	73.6	48.0	28.4	56.5	46.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	36.6	47.3	40.4	64.7	73.6	48.0	28.4	56.5	46.8
Mean Queue	2.3	4.6	6.0	6.0	10.7	11.4	6.5	3.5	8.5	6.6
Max Queue	9.8	14.8	16.5	19.3	24.8	26.9	20.0	12.6	21.9	18.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	4.6	6.0	6.0	10.7	11.4	6.5	3.5	8.5	6.6
Total Max Queue	9.8	14.8	16.5	19.3	24.8	26.9	20.0	12.6	21.9	18.5
Speed	38.1	32.1	28.6	29.2	21.9	19.2	28.4	36.3	24.7	28.7

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	745.6	718.8	748.4	731.2	729.6	765.2	664.8	713.2	2,974.4	5,816.8
Delay	17.3	16.5	16.1	17.4	16.8	15.6	16.5	16.2	16.5	16.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	16.5	16.1	17.4	16.8	15.6	16.5	16.2	16.5	16.5
Mean Queue	1.6	1.4	1.5	1.6	1.5	1.4	1.3	1.4	1.5	1.5
Max Queue	7.2	6.7	7.1	7.1	6.9	6.5	6.5	6.8	6.9	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.4	1.5	1.6	1.5	1.4	1.3	1.4	1.5	1.5
Total Max Queue	7.2	6.7	7.1	7.1	6.9	6.5	6.5	6.8	6.9	6.9
Speed	26.1	26.1	27.0	25.8	26.7	26.4	25.9	26.5	26.5	26.3

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	475.2	550.4	421.6	417.6	486.8	489.2	482.0	497.2	1,815.2	3,820.0
Delay	9.3	8.0	8.3	7.4	8.0	7.9	6.8	6.5	7.9	7.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	8.0	8.3	7.4	8.0	7.9	6.8	6.5	7.9	7.8
Mean Queue	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4
Max Queue	3.6	3.2	2.8	2.3	3.2	3.4	2.5	2.7	2.9	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.4	0.4
Total Max Queue	3.6	3.2	2.8	2.3	3.2	3.4	2.5	2.7	2.9	3.0
Speed	35.1	36.1	38.4	38.2	38.2	37.8	40.3	42.7	38.2	38.3

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	824.0	833.6	894.0	866.8	888.4	934.0	882.0	918.4	3,583.2	7,041.2
Delay	14.7	17.4	14.8	11.7	14.1	15.4	16.5	11.3	14.0	14.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	17.4	14.8	11.7	14.1	15.4	16.5	11.3	14.0	14.4
Mean Queue	1.1	1.4	1.1	0.8	1.0	1.3	1.3	0.8	1.1	1.1
Max Queue	5.5	5.7	5.0	5.6	5.6	5.6	5.8	5.7	5.5	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.4	1.1	0.8	1.0	1.3	1.3	0.8	1.1	1.1
Total Max Queue	5.5	5.7	5.0	5.6	5.6	5.6	5.8	5.7	5.5	5.6
Speed	46.9	45.4	46.6	48.2	46.9	45.9	46.1	47.9	46.9	46.8

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	576.8	615.6	699.6	670.4	700.8	625.6	635.2	603.6	2,696.4	5,127.6
Delay	26.6	25.3	25.6	25.9	24.9	26.2	25.5	26.7	25.7	25.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	25.3	25.6	25.9	24.9	26.2	25.5	26.7	25.7	25.8
Mean Queue	1.8	1.8	2.1	2.0	2.0	1.9	1.9	1.9	2.0	1.9
Max Queue	7.1	6.5	7.5	7.2	7.4	7.1	7.0	6.8	7.3	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.8	2.1	2.0	2.0	1.9	1.9	1.9	2.0	1.9
Total Max Queue	7.1	6.5	7.5	7.2	7.4	7.1	7.0	6.8	7.3	7.1
Speed	39.1	39.6	38.7	39.5	38.9	38.1	38.9	38.1	38.8	38.9

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-03 Hartington Interchange

Arm Reference:	A
Name:	A178 North Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,108.8	985.6	1,043.2	1,104.4	1,344.4	1,364.4	1,325.6	1,043.2	4,856.4	9,319.6
Delay	19.5	19.3	19.8	19.9	20.3	22.2	21.9	19.7	20.5	20.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	19.3	19.8	19.9	20.3	22.2	21.9	19.7	20.5	20.4
Mean Queue	2.7	2.4	2.6	2.7	3.3	3.7	3.7	2.5	3.1	3.0
Max Queue	9.8	9.8	9.8	9.9	10.0	10.0	10.0	9.9	9.9	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.4	2.6	2.7	3.3	3.7	3.7	2.5	3.1	3.0
Total Max Queue	9.8	9.8	9.8	9.9	10.0	10.0	10.0	9.9	9.9	9.9
Speed	31.7	30.8	31.3	32.2	32.6	33.1	33.4	31.6	32.3	32.1

Arm Reference:	B
Name:	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	365.2	322.8	343.2	369.2	267.6	223.6	311.2	304.0	1,203.6	2,506.8
Delay	12.5	10.5	9.2	12.7	17.2	13.7	17.0	11.8	13.2	13.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	10.5	9.2	12.7	17.2	13.7	17.0	11.8	13.2	13.1
Mean Queue	0.5	0.4	0.3	0.6	0.5	0.4	0.6	0.4	0.4	0.5
Max Queue	3.5	2.4	2.4	3.6	3.2	2.5	3.6	2.9	2.9	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.4	0.3	0.6	0.5	0.4	0.6	0.4	0.4	0.5
Total Max Queue	3.5	2.4	2.4	3.6	3.2	2.5	3.6	2.9	2.9	3.0
Speed	32.0	33.8	36.9	31.6	31.4	32.3	26.5	33.5	33.1	32.4

Arm Reference:	C
Name:	B1272 Hartington Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,180.4	1,128.4	1,124.8	1,141.6	1,346.8	1,224.0	1,196.0	1,076.8	4,837.2	9,418.8
Delay	8.1	6.0	6.4	7.2	12.1	9.6	11.1	5.4	8.8	8.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	6.0	6.4	7.2	12.1	9.6	11.1	5.4	8.8	8.3
Mean Queue	0.7	0.4	0.4	0.5	1.2	0.8	0.9	0.3	0.7	0.7
Max Queue	5.8	5.1	4.1	4.8	7.5	6.6	6.0	3.7	5.8	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.4	0.4	0.5	1.2	0.8	0.9	0.3	0.7	0.7
Total Max Queue	5.8	5.1	4.1	4.8	7.5	6.6	6.0	3.7	5.8	5.5
Speed	47.8	50.4	50.2	49.4	44.6	47.7	46.4	50.9	48.0	48.4

Arm Reference:	D
Name:	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	514.4	480.4	479.2	514.8	427.6	454.0	517.2	570.4	1,875.6	3,958.0
Delay	36.1	36.2	36.3	35.5	36.7	35.9	36.1	36.9	36.1	36.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	36.2	36.3	35.5	36.7	35.9	36.1	36.9	36.1	36.2
Mean Queue	2.2	2.1	2.1	2.2	1.9	2.0	2.3	2.5	2.1	2.2
Max Queue	8.0	6.6	6.9	7.1	6.6	7.0	7.9	7.8	6.9	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.1	2.1	2.2	1.9	2.0	2.3	2.5	2.1	2.2
Total Max Queue	8.0	6.6	6.9	7.1	6.6	7.0	7.9	7.8	6.9	7.2
Speed	33.1	32.9	34.0	34.2	32.8	33.7	33.3	32.4	33.7	33.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	264.0	292.4	281.2	333.2	366.4	387.2	433.6	420.0	1,368.0	2,778.0
Delay	23.8	25.1	28.1	28.6	29.5	29.8	27.5	27.0	29.0	27.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	25.1	28.1	28.6	29.5	29.8	27.5	27.0	29.0	27.6
Mean Queue	0.8	0.9	1.0	1.2	1.4	1.5	1.6	1.4	1.3	1.2
Max Queue	3.8	4.0	3.6	4.3	5.5	5.0	5.3	4.9	4.6	4.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.9	1.0	1.2	1.4	1.5	1.6	1.4	1.3	1.2
Total Max Queue	3.8	4.0	3.6	4.3	5.5	5.0	5.3	4.9	4.6	4.6
Speed	18.4	19.8	19.1	20.3	20.3	22.0	20.8	20.5	20.4	20.2

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	362.4	455.2	430.4	409.2	413.2	390.0	463.2	466.8	1,642.8	3,390.4
Delay	3.7	4.7	7.1	6.4	13.1	33.8	24.2	10.5	15.1	13.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	4.7	7.1	6.4	13.1	33.8	24.2	10.5	15.1	13.2
Mean Queue	0.1	0.2	0.3	0.3	0.7	2.0	1.0	0.5	0.8	0.7
Max Queue	1.8	2.5	2.6	2.4	3.9	5.9	5.6	3.3	3.7	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.3	0.3	0.7	2.0	1.0	0.5	0.8	0.7
Total Max Queue	1.8	2.5	2.6	2.4	3.9	5.9	5.6	3.3	3.7	3.5
Speed	55.1	51.3	42.0	43.9	38.9	33.3	30.9	34.3	39.5	41.0

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	298.8	359.2	411.2	423.6	480.4	524.8	546.4	534.8	1,840.0	3,579.2
Delay	1.6	1.4	3.8	1.6	7.4	16.1	4.0	1.6	7.2	5.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.4	3.8	1.6	7.4	16.1	4.0	1.6	7.2	5.0
Mean Queue	0.0	0.0	0.1	0.0	0.4	0.8	0.1	0.0	0.3	0.2
Max Queue	1.1	0.9	1.4	1.0	1.9	3.9	2.0	1.0	2.1	1.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.0	0.4	0.8	0.1	0.0	0.3	0.2
Total Max Queue	1.1	0.9	1.4	1.0	1.9	3.9	2.0	1.0	2.1	1.7
Speed	52.8	52.7	52.3	52.9	51.2	46.7	51.9	52.8	50.8	51.6

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	801.6	1,014.4	1,136.8	1,203.2	1,296.0	1,368.0	1,274.0	1,106.8	5,004.0	9,200.8
Delay	24.9	31.6	36.3	34.2	65.1	84.7	47.7	27.5	55.1	45.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	31.6	36.3	34.2	65.1	84.7	47.7	27.5	55.1	45.2
Mean Queue	2.3	3.6	4.6	4.7	10.3	13.2	6.2	3.4	8.2	6.3
Max Queue	9.5	12.7	14.7	14.7	24.7	29.5	19.2	12.1	20.9	17.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	3.6	4.6	4.7	10.3	13.2	6.2	3.4	8.2	6.3
Total Max Queue	9.5	12.7	14.7	14.7	24.7	29.5	19.2	12.1	20.9	17.6
Speed	38.1	33.4	32.2	32.0	21.8	17.7	27.6	37.6	25.9	29.6

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	682.8	607.6	709.2	657.2	716.0	679.2	581.2	630.0	2,761.6	5,263.2
Delay	18.0	17.3	16.7	18.8	18.1	17.9	18.2	16.5	17.9	17.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	17.3	16.7	18.8	18.1	17.9	18.2	16.5	17.9	17.7
Mean Queue	1.5	1.3	1.4	1.5	1.6	1.5	1.3	1.3	1.5	1.4
Max Queue	7.2	6.1	6.5	6.8	6.6	6.4	6.0	5.9	6.6	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.3	1.4	1.5	1.6	1.5	1.3	1.3	1.5	1.4
Total Max Queue	7.2	6.1	6.5	6.8	6.6	6.4	6.0	5.9	6.6	6.5
Speed	25.4	25.0	25.8	25.3	26.1	25.7	24.8	25.7	25.7	25.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	420.0	488.0	365.6	350.8	384.4	416.8	426.0	377.6	1,517.6	3,229.2
Delay	9.3	8.2	8.0	15.9	7.9	8.4	8.1	6.7	10.1	9.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	8.2	8.0	15.9	7.9	8.4	8.1	6.7	10.1	9.2
Mean Queue	0.4	0.4	0.3	0.7	0.3	0.4	0.4	0.3	0.4	0.4
Max Queue	3.4	3.3	2.5	3.3	2.7	2.7	2.7	2.2	2.8	2.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.3	0.7	0.3	0.4	0.4	0.3	0.4	0.4
Total Max Queue	3.4	3.3	2.5	3.3	2.7	2.7	2.7	2.2	2.8	2.8
Speed	33.7	36.3	38.4	36.0	38.0	36.5	39.3	41.4	37.2	37.4

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	854.0	862.8	906.0	909.6	967.6	956.8	976.8	957.2	3,740.0	7,390.8
Delay	8.4	16.1	16.9	21.2	13.2	16.1	16.0	12.0	16.9	15.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	16.1	16.9	21.2	13.2	16.1	16.0	12.0	16.9	15.2
Mean Queue	0.6	1.4	1.3	1.9	0.9	1.5	1.2	0.9	1.4	1.2
Max Queue	4.2	5.3	6.3	7.0	6.6	7.3	7.2	6.1	6.8	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	1.4	1.3	1.9	0.9	1.5	1.2	0.9	1.4	1.2
Total Max Queue	4.2	5.3	6.3	7.0	6.6	7.3	7.2	6.1	6.8	6.3
Speed	49.6	46.1	45.1	43.4	46.2	45.9	45.5	48.0	45.1	46.1

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	650.4	670.8	710.4	725.6	744.4	691.6	729.6	656.4	2,872.0	5,579.2
Delay	27.1	27.3	26.7	25.2	26.6	26.4	25.9	26.0	26.2	26.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	27.3	26.7	25.2	26.6	26.4	25.9	26.0	26.2	26.4
Mean Queue	2.1	2.1	2.2	2.1	2.3	2.1	2.1	2.0	2.2	2.1
Max Queue	8.3	8.1	7.9	7.4	8.5	8.4	8.3	7.6	8.1	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.1	2.2	2.1	2.3	2.1	2.1	2.0	2.2	2.1
Total Max Queue	8.3	8.1	7.9	7.4	8.5	8.4	8.3	7.6	8.1	8.1
Speed	38.1	37.2	37.8	39.5	38.3	38.1	38.9	38.8	38.4	38.4

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,049.6	905.2	946.4	919.2	1,269.2	1,332.4	971.6	729.2	4,467.2	8,122.8
Delay	18.6	19.6	18.2	19.1	19.6	19.5	19.4	20.5	19.1	19.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	19.6	18.2	19.1	19.6	19.5	19.4	20.5	19.1	19.3
Mean Queue	2.5	2.1	2.1	2.3	3.0	3.2	2.4	1.9	2.6	2.5
Max Queue	10.0	9.5	9.1	9.3	10.0	10.0	9.7	7.6	9.6	9.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	2.1	2.1	2.3	3.0	3.2	2.4	1.9	2.6	2.5
Total Max Queue	10.0	9.5	9.1	9.3	10.0	10.0	9.7	7.6	9.6	9.4
Speed	31.3	30.3	30.4	30.8	31.7	32.9	30.5	27.5	31.4	30.7

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	317.2	278.8	282.8	292.4	203.2	168.8	246.8	245.6	947.2	2,035.6
Delay	12.1	10.0	8.5	9.2	10.2	12.0	9.6	10.5	10.0	10.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	10.0	8.5	9.2	10.2	12.0	9.6	10.5	10.0	10.2
Mean Queue	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.3	0.3
Max Queue	2.9	2.4	2.3	2.3	1.7	1.7	2.2	2.2	2.0	2.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.3	0.3	0.3	0.2	0.2	0.3	0.4	0.3	0.3
Total Max Queue	2.9	2.4	2.3	2.3	1.7	1.7	2.2	2.2	2.0	2.2
Speed	32.2	35.0	37.3	38.4	35.4	34.5	37.1	39.7	36.4	36.2

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,164.0	1,070.8	1,043.2	1,013.6	1,252.0	1,150.8	1,186.8	945.6	4,459.6	8,826.8
Delay	8.0	5.7	4.8	5.7	7.8	9.4	6.8	11.5	6.9	7.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	5.7	4.8	5.7	7.8	9.4	6.8	11.5	6.9	7.4
Mean Queue	0.6	0.3	0.3	0.3	0.6	0.7	0.5	1.1	0.5	0.5
Max Queue	5.8	4.0	3.2	3.7	6.0	6.2	5.1	4.5	4.8	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.3	0.3	0.3	0.6	0.7	0.5	1.1	0.5	0.5
Total Max Queue	5.8	4.0	3.2	3.7	6.0	6.2	5.1	4.5	4.8	4.8
Speed	48.4	50.7	51.7	50.9	48.7	48.2	48.8	50.5	49.9	49.8

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	483.2	458.8	455.2	500.8	440.8	437.6	501.6	533.6	1,834.4	3,811.6
Delay	34.7	37.4	35.2	38.2	34.3	36.6	36.9	33.6	36.1	35.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	37.4	35.2	38.2	34.3	36.6	36.9	33.6	36.1	35.9
Mean Queue	2.0	2.1	2.0	2.3	1.9	2.0	2.2	2.3	2.0	2.1
Max Queue	7.2	7.0	6.4	7.6	6.3	7.0	7.4	7.6	6.8	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	2.1	2.0	2.3	1.9	2.0	2.2	2.3	2.0	2.1
Total Max Queue	7.2	7.0	6.4	7.6	6.3	7.0	7.4	7.6	6.8	7.0
Speed	34.0	32.2	33.6	30.8	35.1	33.0	32.6	34.8	33.1	33.2

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	288.8	339.2	302.0	350.8	382.4	388.0	445.6	448.0	1,423.2	2,944.8
Delay	24.7	24.4	29.5	28.4	29.6	31.6	28.5	26.8	29.8	28.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	24.4	29.5	28.4	29.6	31.6	28.5	26.8	29.8	28.1
Mean Queue	0.9	1.0	1.2	1.3	1.5	1.6	1.7	1.5	1.4	1.3
Max Queue	3.7	4.7	4.0	5.0	5.5	5.5	5.1	5.5	5.0	4.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.0	1.2	1.3	1.5	1.6	1.7	1.5	1.4	1.3
Total Max Queue	3.7	4.7	4.0	5.0	5.5	5.5	5.1	5.5	5.0	4.9
Speed	18.4	21.0	18.9	20.9	20.8	21.4	20.9	20.8	20.5	20.4

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	403.2	492.8	497.6	485.2	465.6	472.4	500.4	474.0	1,920.8	3,791.2
Delay	4.8	5.3	7.1	10.0	54.2	125.1	78.6	19.5	49.1	39.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.8	5.3	7.1	10.0	54.2	125.1	78.6	19.5	49.1	39.3
Mean Queue	0.2	0.2	0.4	0.5	3.9	8.2	4.2	1.0	3.3	2.4
Max Queue	2.4	2.4	2.9	3.7	10.3	16.6	10.4	6.3	8.4	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.4	0.5	3.9	8.2	4.2	1.0	3.3	2.4
Total Max Queue	2.4	2.4	2.9	3.7	10.3	16.6	10.4	6.3	8.4	7.0
Speed	50.3	47.5	42.4	36.2	28.1	19.0	20.4	27.9	31.4	33.7

Arm Reference:	C
Name	B1272 Hartington Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	328.0	395.6	463.6	509.2	539.6	502.0	569.2	558.0	2,014.4	3,865.2
Delay	2.0	2.4	2.5	4.8	18.6	30.5	27.2	2.2	14.1	11.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	2.4	2.5	4.8	18.6	30.5	27.2	2.2	14.1	11.6
Mean Queue	0.0	0.1	0.1	0.2	1.1	1.6	1.3	0.1	0.7	0.6
Max Queue	1.3	1.2	1.2	1.7	5.4	5.7	5.6	1.6	3.5	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.1	0.2	1.1	1.6	1.3	0.1	0.7	0.6
Total Max Queue	1.3	1.2	1.2	1.7	5.4	5.7	5.6	1.6	3.5	3.0
Speed	52.7	52.8	52.8	52.1	46.9	42.7	44.5	52.1	48.6	49.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	885.6	1,036.4	1,167.2	1,256.8	1,387.6	1,347.6	1,373.6	1,170.0	5,159.2	9,624.8
Delay	25.8	31.5	30.1	46.2	75.1	93.0	54.0	28.7	61.1	49.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	31.5	30.1	46.2	75.1	93.0	54.0	28.7	61.1	49.5
Mean Queue	2.6	3.8	3.8	7.0	12.3	14.3	7.7	3.8	9.4	7.2
Max Queue	10.5	12.4	14.2	21.0	27.6	29.8	25.2	12.5	23.2	19.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	3.8	3.8	7.0	12.3	14.3	7.7	3.8	9.4	7.2
Total Max Queue	10.5	12.4	14.2	21.0	27.6	29.8	25.2	12.5	23.2	19.6
Speed	37.7	34.4	35.0	26.9	19.0	14.7	25.2	36.6	23.9	28.2

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	755.6	724.8	770.0	748.4	771.2	762.0	684.4	784.0	3,051.6	6,000.4
Delay	17.5	17.7	18.5	18.3	17.4	18.0	18.7	17.1	18.1	17.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	17.7	18.5	18.3	17.4	18.0	18.7	17.1	18.1	17.9
Mean Queue	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.7	1.7	1.7
Max Queue	7.8	6.9	7.4	7.2	6.9	7.4	7.9	7.6	7.2	7.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.6	1.8	1.7	1.6	1.7	1.6	1.7	1.7	1.7
Total Max Queue	7.8	6.9	7.4	7.2	6.9	7.4	7.9	7.6	7.2	7.4
Speed	26.7	26.3	26.6	26.8	27.8	26.1	26.3	27.3	26.8	26.8

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	500.0	508.4	431.6	425.2	465.6	443.2	486.8	460.4	1,765.6	3,721.2
Delay	9.4	9.5	9.2	11.3	10.0	8.7	9.2	8.6	9.8	9.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	9.5	9.2	11.3	10.0	8.7	9.2	8.6	9.8	9.5
Mean Queue	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.5
Max Queue	3.8	3.4	2.9	3.6	3.2	2.9	3.6	3.1	3.2	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.5
Total Max Queue	3.8	3.4	2.9	3.6	3.2	2.9	3.6	3.1	3.2	3.3
Speed	33.6	32.6	35.5	33.0	33.0	36.9	35.1	36.5	34.6	34.5

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	854.4	878.0	933.2	968.4	963.2	974.4	978.0	954.4	3,839.2	7,504.0
Delay	10.1	18.2	21.9	23.1	25.6	19.6	15.4	12.3	22.5	18.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	18.2	21.9	23.1	25.6	19.6	15.4	12.3	22.5	18.8
Mean Queue	0.7	1.5	1.9	2.1	2.2	1.7	1.1	0.9	2.0	1.6
Max Queue	5.0	6.4	6.8	8.1	6.9	6.6	6.5	6.3	7.1	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	1.5	1.9	2.1	2.2	1.7	1.1	0.9	2.0	1.6
Total Max Queue	5.0	6.4	6.8	8.1	6.9	6.6	6.5	6.3	7.1	6.6
Speed	48.4	44.2	43.6	42.5	41.3	44.5	46.0	47.2	43.0	44.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	681.2	720.8	796.8	806.8	790.4	698.4	752.4	656.4	3,092.4	5,903.2
Delay	26.0	26.2	25.6	26.0	26.6	25.8	25.5	27.5	26.0	26.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	26.2	25.6	26.0	26.6	25.8	25.5	27.5	26.0	26.1
Mean Queue	2.0	2.2	2.4	2.4	2.4	2.1	2.2	2.1	2.3	2.2
Max Queue	7.7	7.6	8.6	8.7	9.1	7.5	7.9	7.8	8.5	8.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	2.2	2.4	2.4	2.4	2.1	2.2	2.1	2.3	2.2
Total Max Queue	7.7	7.6	8.6	8.7	9.1	7.5	7.9	7.8	8.5	8.2
Speed	39.2	38.8	39.0	38.8	37.3	39.0	39.8	37.3	38.5	38.7

Land at South Tees Development Corporation
Junction Statistics

2030 Do Something

J-03 Hartington Interchange

Arm Reference:	A
Name	A178 North Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,177.6	1,011.2	1,069.6	1,112.8	1,337.6	1,358.4	1,353.2	1,110.4	4,878.4	9,530.8
Delay	19.6	19.3	19.6	21.4	20.3	22.1	21.9	19.6	20.9	20.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	19.3	19.6	21.4	20.3	22.1	21.9	19.6	20.9	20.5
Mean Queue	2.9	2.4	2.6	2.9	3.3	3.8	3.7	2.7	3.2	3.1
Max Queue	10.0	9.8	9.7	10.0	10.0	10.0	10.0	9.8	9.9	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	2.4	2.6	2.9	3.3	3.8	3.7	2.7	3.2	3.1
Total Max Queue	10.0	9.8	9.7	10.0	10.0	10.0	10.0	9.8	9.9	9.9
Speed	31.7	31.3	31.8	31.7	31.9	33.0	33.7	32.4	32.1	32.2

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	380.0	320.8	334.0	393.2	310.8	263.6	330.4	330.8	1,301.6	2,663.6
Delay	13.0	11.9	10.2	12.9	15.4	14.4	14.4	11.0	13.2	12.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	11.9	10.2	12.9	15.4	14.4	14.4	11.0	13.2	12.9
Mean Queue	0.6	0.4	0.4	0.6	0.6	0.4	0.6	0.4	0.5	0.5
Max Queue	3.4	3.3	2.7	3.3	3.4	2.8	2.7	2.7	3.1	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.4	0.4	0.6	0.6	0.4	0.6	0.4	0.5	0.5
Total Max Queue	3.4	3.3	2.7	3.3	3.4	2.8	2.7	2.7	3.1	3.0
Speed	31.7	33.3	35.0	31.7	27.9	31.1	30.5	34.7	31.4	31.9

Arm Reference:	C
Name	B1272 Hartington Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,179.6	1,102.0	1,118.0	1,102.4	1,328.8	1,224.4	1,188.4	1,052.4	4,773.6	9,296.0
Delay	8.9	6.4	6.1	7.1	9.0	9.8	11.2	5.8	8.0	8.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	6.4	6.1	7.1	9.0	9.8	11.2	5.8	8.0	8.0
Mean Queue	0.7	0.4	0.4	0.5	0.8	0.8	0.9	0.3	0.6	0.6
Max Queue	5.6	4.6	4.5	4.8	6.8	6.4	6.6	3.7	5.6	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.4	0.4	0.5	0.8	0.8	0.9	0.3	0.6	0.6
Total Max Queue	5.6	4.6	4.5	4.8	6.8	6.4	6.6	3.7	5.6	5.4
Speed	47.7	49.7	50.3	49.7	47.1	47.6	46.6	50.7	48.7	48.7

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	484.8	494.4	480.0	511.2	468.8	454.4	519.2	581.2	1,914.4	3,994.0
Delay	36.1	35.4	35.7	34.7	37.5	36.4	37.0	34.5	36.1	35.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	35.4	35.7	34.7	37.5	36.4	37.0	34.5	36.1	35.9
Mean Queue	2.2	2.1	2.2	2.1	2.2	2.0	2.3	2.4	2.1	2.2
Max Queue	7.3	7.1	7.6	6.9	7.7	7.2	8.1	7.9	7.4	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.1	2.2	2.1	2.2	2.0	2.3	2.4	2.1	2.2
Total Max Queue	7.3	7.1	7.6	6.9	7.7	7.2	8.1	7.9	7.4	7.5
Speed	33.1	33.5	33.2	35.4	31.6	32.7	32.3	33.2	33.2	33.1

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	140.4	136.4	140.8	202.0	170.4	228.4	268.0	300.4	741.6	1,586.8
Delay	5.2	5.6	4.2	4.2	4.4	4.4	6.9	22.8	4.3	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	5.6	4.2	4.2	4.4	4.4	6.9	22.8	4.3	6.9
Mean Queue	0.2	0.2	0.1	0.2	0.2	0.2	0.4	1.9	0.2	0.4
Max Queue	2.7	2.8	2.9	3.4	3.0	3.9	4.7	6.1	3.3	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.1	0.2	0.2	0.2	0.4	1.9	0.2	0.4
Total Max Queue	2.7	2.8	2.9	3.4	3.0	3.9	4.7	6.1	3.3	3.6
Speed	41.7	40.6	43.9	43.7	43.5	43.6	41.7	34.2	43.7	41.8

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	81.6	139.2	102.8	124.0	181.6	140.0	157.6	151.6	548.4	1,078.4
Delay	17.9	21.6	27.1	29.9	32.7	34.8	41.2	25.9	31.1	29.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	21.6	27.1	29.9	32.7	34.8	41.2	25.9	31.1	29.1
Mean Queue	0.4	0.8	0.7	1.0	1.5	1.3	1.7	0.9	1.1	1.0
Max Queue	3.6	4.9	3.9	5.4	7.4	5.9	6.2	4.6	5.7	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.8	0.7	1.0	1.5	1.3	1.7	0.9	1.1	1.0
Total Max Queue	3.6	4.9	3.9	5.4	7.4	5.9	6.2	4.6	5.7	5.3
Speed	18.5	15.8	14.5	12.7	12.0	11.5	11.5	17.2	12.7	14.0

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	832.4	892.4	1,130.4	1,236.8	1,210.4	1,262.0	970.8	702.4	4,839.6	8,237.6
Delay	7.3	6.2	6.6	6.1	6.5	6.0	7.7	8.5	6.3	6.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	6.2	6.6	6.1	6.5	6.0	7.7	8.5	6.3	6.8
Mean Queue	1.3	1.3	1.6	1.6	1.7	1.7	1.7	1.3	1.7	1.5
Max Queue	9.0	8.3	9.0	8.7	8.9	8.9	8.8	7.8	8.9	8.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.3	1.6	1.6	1.7	1.7	1.7	1.3	1.7	1.5
Total Max Queue	9.0	8.3	9.0	8.7	8.9	8.9	8.8	7.8	8.9	8.7
Speed	29.9	33.8	33.1	33.7	34.5	34.7	32.0	30.6	34.0	32.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	376.0	357.2	351.6	336.8	352.0	376.8	292.8	390.0	1,417.2	2,833.2
Delay	7.9	8.0	8.4	7.1	8.2	7.3	6.7	7.2	7.7	7.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	8.0	8.4	7.1	8.2	7.3	6.7	7.2	7.7	7.6
Mean Queue	0.6	0.6	0.7	0.5	0.6	0.6	0.4	0.6	0.6	0.6
Max Queue	5.9	5.9	6.0	4.9	5.9	5.8	4.5	5.1	5.7	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.6	0.7	0.5	0.6	0.6	0.4	0.6	0.6	0.6
Total Max Queue	5.9	5.9	6.0	4.9	5.9	5.8	4.5	5.1	5.7	5.5
Speed	35.2	35.6	35.2	38.1	35.7	37.6	38.5	37.5	36.7	36.7

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	244.0	226.0	256.4	215.6	239.6	214.4	133.6	179.6	926.0	1,709.2
Delay	14.3	16.1	18.3	16.9	17.1	17.7	15.5	16.0	17.5	16.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	16.1	18.3	16.9	17.1	17.7	15.5	16.0	17.5	16.6
Mean Queue	0.8	0.9	1.1	0.9	1.0	0.9	0.5	0.7	1.0	0.9
Max Queue	6.1	5.8	6.8	4.7	6.0	6.4	3.9	4.6	6.0	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.9	1.1	0.9	1.0	0.9	0.5	0.7	1.0	0.9
Total Max Queue	6.1	5.8	6.8	4.7	6.0	6.4	3.9	4.6	6.0	5.6
Speed	20.6	19.2	17.0	18.5	18.3	18.7	21.6	20.4	18.1	19.2

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	396.0	509.6	577.2	550.0	599.2	532.8	574.0	466.4	2,259.2	4,205.2
Delay	9.8	9.3	7.5	8.8	7.9	8.2	8.5	8.3	8.1	8.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	9.3	7.5	8.8	7.9	8.2	8.5	8.3	8.1	8.5
Mean Queue	0.9	1.0	0.9	1.1	1.0	1.0	1.1	1.4	1.0	1.0
Max Queue	6.6	7.6	7.3	7.5	8.1	7.6	7.9	7.1	7.6	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.0	0.9	1.1	1.0	1.0	1.1	1.4	1.0	1.0
Total Max Queue	6.6	7.6	7.3	7.5	8.1	7.6	7.9	7.1	7.6	7.5
Speed	21.8	23.3	27.4	24.8	26.9	27.1	24.4	25.5	26.5	25.3

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	792.8	507.2	645.6	726.0	699.2	826.4	634.4	381.6	2,897.2	5,213.2
Delay	10.8	9.3	9.0	11.0	15.7	17.5	14.7	15.9	13.3	13.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	9.3	9.0	11.0	15.7	17.5	14.7	15.9	13.3	13.0
Mean Queue	1.6	0.9	1.0	1.5	2.3	2.8	1.9	2.7	1.9	1.8
Max Queue	12.4	7.8	8.7	11.3	13.7	16.5	10.5	10.5	12.6	11.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	0.9	1.0	1.5	2.3	2.8	1.9	2.7	1.9	1.8
Total Max Queue	12.4	7.8	8.7	11.3	13.7	16.5	10.5	10.5	12.6	11.6
Speed	30.6	32.2	32.3	30.9	26.4	24.6	28.6	28.7	28.6	29.2

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	240.0	234.8	251.2	182.4	481.6	328.0	195.2	206.8	1,243.2	2,120.0
Delay	32.0	18.9	24.3	25.2	77.2	101.7	21.9	21.2	57.1	42.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	18.9	24.3	25.2	77.2	101.7	21.9	21.2	57.1	42.2
Mean Queue	2.0	1.0	1.5	1.2	10.4	7.8	1.1	1.6	5.2	3.5
Max Queue	9.8	5.9	7.6	5.2	21.3	20.4	6.0	7.3	13.6	10.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	1.0	1.5	1.2	10.4	7.8	1.1	1.6	5.2	3.5
Total Max Queue	9.8	5.9	7.6	5.2	21.3	20.4	6.0	7.3	13.6	10.8
Speed	11.7	17.8	16.4	16.0	6.1	4.8	17.8	19.7	10.8	13.4

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	411.6	388.8	367.6	421.6	362.0	344.8	430.4	329.6	1,496.0	3,056.4
Delay	6.9	8.0	7.8	7.2	8.2	7.2	7.9	8.7	7.6	7.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	8.0	7.8	7.2	8.2	7.2	7.9	8.7	7.6	7.7
Mean Queue	0.6	0.7	0.6	0.7	0.7	0.6	0.8	1.2	0.6	0.7
Max Queue	7.7	6.7	6.0	6.5	6.8	6.6	7.2	7.1	6.5	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.7	0.6	0.7	0.7	0.6	0.8	1.2	0.6	0.7
Total Max Queue	7.7	6.7	6.0	6.5	6.8	6.6	7.2	7.1	6.5	6.8
Speed	32.2	27.0	28.9	31.3	30.5	32.4	30.1	27.7	30.8	30.1

2025 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	186.0	161.6	197.6	240.0	235.2	318.4	305.2	317.2	991.2	1,961.2
Delay	5.2	5.0	4.1	4.7	4.1	4.1	5.4	6.0	4.2	4.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	5.0	4.1	4.7	4.1	4.1	5.4	6.0	4.2	4.8
Mean Queue	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.2
Max Queue	3.9	2.9	3.2	3.8	3.3	4.3	4.6	5.4	3.7	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.4	0.2	0.2
Total Max Queue	3.9	2.9	3.2	3.8	3.3	4.3	4.6	5.4	3.7	3.9
Speed	41.7	42.7	43.9	42.6	44.0	44.0	41.4	40.0	43.6	42.7

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	101.6	130.8	139.2	141.6	151.6	117.6	158.8	108.8	550.0	1,050.0
Delay	22.8	25.8	28.6	25.0	33.5	29.8	27.1	22.3	29.2	27.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	25.8	28.6	25.0	33.5	29.8	27.1	22.3	29.2	27.1
Mean Queue	0.6	0.9	1.0	0.9	1.3	0.9	1.1	0.6	1.0	0.9
Max Queue	3.9	4.9	5.4	4.7	6.0	4.4	5.6	5.0	5.1	5.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.9	1.0	0.9	1.3	0.9	1.1	0.6	1.0	0.9
Total Max Queue	3.9	4.9	5.4	4.7	6.0	4.4	5.6	5.0	5.1	5.0
Speed	16.1	15.0	12.6	15.0	12.1	13.3	13.1	15.9	13.2	14.0

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	950.4	1,047.2	1,088.0	1,092.4	1,164.8	1,218.8	1,032.8	843.2	4,564.0	8,437.6
Delay	7.4	7.2	6.5	6.7	7.1	6.1	7.2	7.7	6.6	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	7.2	6.5	6.7	7.1	6.1	7.2	7.7	6.6	6.9
Mean Queue	1.5	1.6	1.5	1.6	1.8	1.6	1.6	1.4	1.6	1.6
Max Queue	9.0	8.8	8.5	8.7	8.9	8.8	8.8	8.6	8.7	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.6	1.5	1.6	1.8	1.6	1.6	1.4	1.6	1.6
Total Max Queue	9.0	8.8	8.5	8.7	8.9	8.8	8.8	8.6	8.7	8.8
Speed	30.3	31.5	33.3	32.8	33.0	35.0	31.9	29.4	33.5	32.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	448.4	440.4	482.0	524.4	476.8	494.0	447.6	500.4	1,977.2	3,814.0
Delay	7.7	7.0	7.4	7.2	7.3	6.9	7.4	7.9	7.2	7.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	7.0	7.4	7.2	7.3	6.9	7.4	7.9	7.2	7.4
Mean Queue	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.7	0.7
Max Queue	7.4	5.6	7.6	7.0	7.1	8.0	8.0	7.2	7.4	7.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.8	0.7	0.7
Total Max Queue	7.4	5.6	7.6	7.0	7.1	8.0	8.0	7.2	7.4	7.3
Speed	36.3	37.6	37.0	37.4	37.4	38.1	37.0	36.1	37.5	37.2

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	250.8	252.0	274.4	233.2	257.6	239.6	190.8	219.2	1,004.8	1,917.6
Delay	18.4	19.9	22.7	21.6	27.5	24.2	20.9	20.6	24.0	22.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	19.9	22.7	21.6	27.5	24.2	20.9	20.6	24.0	22.2
Mean Queue	1.1	1.2	1.5	1.2	1.9	1.3	1.0	1.1	1.5	1.3
Max Queue	7.4	6.6	8.0	6.1	8.3	7.2	6.0	6.2	7.4	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.5	1.2	1.9	1.3	1.0	1.1	1.5	1.3
Total Max Queue	7.4	6.6	8.0	6.1	8.3	7.2	6.0	6.2	7.4	7.0
Speed	17.2	17.1	15.9	15.9	13.4	15.8	16.8	16.2	15.3	15.9

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	559.2	650.8	705.2	726.0	830.4	710.4	744.4	719.2	2,972.0	5,645.6
Delay	8.6	8.5	8.1	7.9	7.6	7.3	8.1	8.1	7.7	8.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.6	8.5	8.1	7.9	7.6	7.3	8.1	8.1	7.7	8.0
Mean Queue	1.1	1.2	1.3	1.3	1.4	1.1	1.3	1.3	1.3	1.2
Max Queue	8.2	8.0	8.1	8.1	8.9	8.5	8.6	8.5	8.4	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.3	1.3	1.4	1.1	1.3	1.3	1.3	1.2
Total Max Queue	8.2	8.0	8.1	8.1	8.9	8.5	8.6	8.5	8.4	8.4
Speed	25.3	26.3	28.4	28.2	29.9	29.5	27.9	27.6	29.0	28.0

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	794.4	658.8	705.2	726.4	756.0	890.4	781.6	518.8	3,078.0	5,831.6
Delay	10.5	8.8	10.0	9.5	12.0	17.0	10.8	9.2	12.1	11.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	8.8	10.0	9.5	12.0	17.0	10.8	9.2	12.1	11.1
Mean Queue	1.7	1.2	1.4	1.4	1.9	3.4	1.7	1.0	2.0	1.8
Max Queue	12.7	9.6	10.1	10.6	12.1	17.9	12.8	9.4	12.7	12.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.2	1.4	1.4	1.9	3.4	1.7	1.0	2.0	1.8
Total Max Queue	12.7	9.6	10.1	10.6	12.1	17.9	12.8	9.4	12.7	12.0
Speed	32.7	34.3	32.6	33.1	30.9	25.8	32.9	34.0	30.6	31.9

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	291.6	302.0	307.6	242.4	466.4	419.2	264.0	284.0	1,435.6	2,577.2
Delay	25.4	21.8	24.1	23.4	71.5	98.1	26.7	18.1	54.3	40.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	21.8	24.1	23.4	71.5	98.1	26.7	18.1	54.3	40.4
Mean Queue	1.9	1.5	1.9	1.4	9.2	9.9	1.8	1.2	5.6	3.8
Max Queue	9.8	7.9	9.9	7.0	21.1	20.9	9.1	7.4	14.7	12.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.5	1.9	1.4	9.2	9.9	1.8	1.2	5.6	3.8
Total Max Queue	9.8	7.9	9.9	7.0	21.1	20.9	9.1	7.4	14.7	12.0
Speed	15.6	16.1	15.3	15.3	6.9	5.0	14.3	17.8	10.6	13.0

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	553.6	445.2	417.2	461.2	496.0	453.6	507.2	483.6	1,828.0	3,817.6
Delay	8.0	7.9	7.3	7.6	9.3	8.9	7.2	8.6	8.3	8.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	7.9	7.3	7.6	9.3	8.9	7.2	8.6	8.3	8.1
Mean Queue	1.0	0.8	0.7	0.8	1.1	0.9	0.8	0.9	0.9	0.9
Max Queue	7.8	6.9	7.1	7.0	8.0	7.5	7.6	7.7	7.4	7.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	0.7	0.8	1.1	0.9	0.8	0.9	0.9	0.9
Total Max Queue	7.8	6.9	7.1	7.0	8.0	7.5	7.6	7.7	7.4	7.4
Speed	29.9	27.8	29.2	28.8	29.1	30.5	31.8	26.3	29.4	29.2

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	207.2	163.2	226.0	258.4	228.0	294.4	308.0	316.8	1,006.8	2,002.0
Delay	5.1	5.4	4.0	3.7	4.5	4.1	5.1	5.7	4.1	4.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	5.4	4.0	3.7	4.5	4.1	5.1	5.7	4.1	4.6
Mean Queue	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2
Max Queue	3.4	3.0	3.4	3.3	3.7	3.7	5.0	4.4	3.5	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2
Total Max Queue	3.4	3.0	3.4	3.3	3.7	3.7	5.0	4.4	3.5	3.7
Speed	42.1	41.7	44.8	44.9	43.5	44.4	42.1	40.4	44.4	43.1

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	107.6	139.2	154.8	173.2	176.4	158.0	177.6	128.8	662.4	1,215.6
Delay	22.2	28.4	32.4	34.2	34.4	34.1	34.9	26.0	33.8	31.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	28.4	32.4	34.2	34.4	34.1	34.9	26.0	33.8	31.1
Mean Queue	0.6	1.0	1.3	1.5	1.5	1.4	1.6	0.8	1.4	1.3
Max Queue	4.8	5.3	6.0	7.2	6.9	6.5	7.1	5.1	6.7	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	1.0	1.3	1.5	1.5	1.4	1.6	0.8	1.4	1.3
Total Max Queue	4.8	5.3	6.0	7.2	6.9	6.5	7.1	5.1	6.7	6.2
Speed	16.6	13.4	11.9	10.6	11.4	11.2	11.4	14.7	11.3	12.5

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,008.8	1,094.0	1,220.8	1,224.0	1,254.0	1,282.8	1,123.6	896.4	4,981.6	9,104.4
Delay	7.1	7.0	6.8	6.4	6.7	6.6	7.0	7.4	6.6	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	7.0	6.8	6.4	6.7	6.6	7.0	7.4	6.6	6.9
Mean Queue	1.6	1.7	1.8	1.7	1.8	1.9	1.7	1.4	1.8	1.7
Max Queue	8.9	8.8	9.0	9.0	8.9	8.9	8.4	8.7	9.0	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	1.8	1.7	1.8	1.9	1.7	1.4	1.8	1.7
Total Max Queue	8.9	8.8	9.0	9.0	8.9	8.9	8.4	8.7	9.0	8.8
Speed	31.2	32.8	34.2	34.7	34.6	35.1	33.3	30.4	34.7	33.5

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	459.6	446.4	482.8	476.4	478.4	512.4	454.0	503.6	1,950.0	3,813.6
Delay	8.8	7.2	7.1	7.0	7.0	7.1	7.2	7.0	7.0	7.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	7.2	7.1	7.0	7.0	7.1	7.2	7.0	7.0	7.3
Mean Queue	0.9	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7
Max Queue	7.3	6.3	7.0	6.5	6.6	7.2	6.4	6.9	6.8	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7
Total Max Queue	7.3	6.3	7.0	6.5	6.6	7.2	6.4	6.9	6.8	6.8
Speed	34.3	37.6	37.6	37.9	38.0	38.0	37.4	37.6	37.9	37.4

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	289.2	285.2	309.6	297.6	261.6	286.0	241.2	254.0	1,154.8	2,224.4
Delay	21.2	23.4	26.8	25.5	25.3	30.2	22.3	24.6	26.9	25.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	23.4	26.8	25.5	25.3	30.2	22.3	24.6	26.9	25.1
Mean Queue	1.5	1.7	2.1	1.9	1.8	2.0	1.3	1.6	1.9	1.8
Max Queue	9.1	7.8	8.7	8.7	8.6	9.3	7.2	7.6	8.8	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.7	2.1	1.9	1.8	2.0	1.3	1.6	1.9	1.8
Total Max Queue	9.1	7.8	8.7	8.7	8.6	9.3	7.2	7.6	8.8	8.4
Speed	15.5	15.5	13.1	13.7	13.7	12.1	15.4	14.7	13.1	14.1

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	634.8	776.8	772.4	750.8	868.4	777.2	729.6	788.0	3,168.8	6,098.0
Delay	8.2	7.8	7.6	7.9	7.4	8.2	8.1	8.4	7.8	7.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	7.8	7.6	7.9	7.4	8.2	8.1	8.4	7.8	7.9
Mean Queue	1.1	1.3	1.3	1.3	1.4	1.4	1.3	1.5	1.4	1.3
Max Queue	8.2	8.6	8.5	8.5	8.6	8.6	8.5	8.9	8.6	8.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.3	1.3	1.3	1.4	1.4	1.3	1.5	1.4	1.3
Total Max Queue	8.2	8.6	8.5	8.5	8.6	8.6	8.5	8.9	8.6	8.6
Speed	26.0	28.5	29.7	28.2	30.3	28.6	27.9	28.2	29.2	28.5

2030 Do Minimum

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	776.0	707.6	732.0	815.2	827.6	990.8	950.0	674.0	3,365.6	6,473.2
Delay	9.8	9.8	9.9	11.0	17.4	32.5	29.1	11.9	17.7	16.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	9.8	9.9	11.0	17.4	32.5	29.1	11.9	17.7	16.6
Mean Queue	1.6	1.4	1.5	1.9	3.2	7.6	6.2	1.7	3.6	3.2
Max Queue	12.1	11.5	10.6	13.1	17.0	24.0	24.8	11.4	16.2	15.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.4	1.5	1.9	3.2	7.6	6.2	1.7	3.6	3.2
Total Max Queue	12.1	11.5	10.6	13.1	17.0	24.0	24.8	11.4	16.2	15.6
Speed	33.9	33.4	33.1	32.1	26.3	18.6	20.2	32.7	27.6	28.7

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	342.8	320.8	333.2	320.0	460.0	385.6	384.0	358.0	1,498.8	2,904.4
Delay	30.1	23.9	23.7	29.2	92.4	144.0	124.3	64.3	72.3	67.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	23.9	23.7	29.2	92.4	144.0	124.3	64.3	72.3	67.1
Mean Queue	2.7	1.8	2.0	2.4	11.9	14.5	12.3	5.3	7.7	6.7
Max Queue	11.1	9.7	9.5	10.3	21.5	21.5	21.2	17.0	15.7	15.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	1.8	2.0	2.4	11.9	14.5	12.3	5.3	7.7	6.7
Total Max Queue	11.1	9.7	9.5	10.3	21.5	21.5	21.2	17.0	15.7	15.3
Speed	12.1	14.7	15.1	13.4	5.1	2.8	4.0	9.1	9.1	9.5

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	594.0	466.0	452.0	500.4	506.0	505.6	512.8	551.6	1,964.0	4,088.4
Delay	7.9	8.7	8.6	8.1	7.9	8.2	8.2	8.1	8.2	8.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	8.7	8.6	8.1	7.9	8.2	8.2	8.1	8.2	8.2
Mean Queue	1.1	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0
Max Queue	8.3	7.1	7.4	7.8	7.7	7.5	7.8	7.6	7.6	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.9	1.0
Total Max Queue	8.3	7.1	7.4	7.8	7.7	7.5	7.8	7.6	7.6	7.6
Speed	31.0	27.4	27.9	30.8	31.2	33.5	32.8	30.7	30.8	30.7

2025 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	165.2	158.0	196.4	245.2	228.4	276.4	320.8	294.4	946.4	1,884.8
Delay	5.1	5.0	5.7	4.9	4.4	4.4	5.1	6.1	4.9	5.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	5.0	5.7	4.9	4.4	4.4	5.1	6.1	4.9	5.1
Mean Queue	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.3
Max Queue	4.3	3.6	3.5	3.8	3.5	4.3	5.1	5.0	3.8	4.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.2	0.3
Total Max Queue	4.3	3.6	3.5	3.8	3.5	4.3	5.1	5.0	3.8	4.1
Speed	41.8	42.5	41.3	42.5	43.8	43.2	41.7	40.1	42.7	42.2

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	101.6	127.2	125.2	150.4	166.4	134.8	138.8	107.6	576.8	1,052.0
Delay	19.2	26.1	28.0	27.2	31.8	33.8	26.8	24.9	30.2	27.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	26.1	28.0	27.2	31.8	33.8	26.8	24.9	30.2	27.6
Mean Queue	0.5	0.8	0.9	1.0	1.4	1.2	0.9	0.7	1.1	1.0
Max Queue	3.7	5.0	4.6	5.2	5.8	5.9	4.9	4.4	5.4	5.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.8	0.9	1.0	1.4	1.2	0.9	0.7	1.1	1.0
Total Max Queue	3.7	5.0	4.6	5.2	5.8	5.9	4.9	4.4	5.4	5.0
Speed	19.4	13.8	14.4	13.6	11.2	11.5	14.9	15.6	12.7	14.1

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	934.0	1,049.6	1,082.4	1,074.8	1,179.2	1,233.6	1,051.2	887.2	4,570.0	8,492.0
Delay	6.7	6.4	7.1	6.9	7.1	6.7	7.0	7.0	7.0	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	6.4	7.1	6.9	7.1	6.7	7.0	7.0	7.0	6.9
Mean Queue	1.3	1.4	1.7	1.6	1.9	1.8	1.6	1.3	1.8	1.6
Max Queue	8.8	8.8	8.8	8.6	9.0	8.8	8.9	8.6	8.8	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.4	1.7	1.6	1.9	1.8	1.6	1.3	1.8	1.6
Total Max Queue	8.8	8.8	8.8	8.6	9.0	8.8	8.9	8.6	8.8	8.8
Speed	30.3	32.9	32.8	33.1	33.4	34.5	32.5	30.4	33.4	32.6

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	441.6	422.0	456.0	453.6	487.2	468.4	428.8	472.8	1,865.2	3,630.4
Delay	7.7	6.6	7.4	7.6	7.6	7.9	6.4	7.3	7.6	7.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	6.6	7.4	7.6	7.6	7.9	6.4	7.3	7.6	7.3
Mean Queue	0.7	0.6	0.7	0.7	0.8	0.8	0.6	0.7	0.7	0.7
Max Queue	6.9	5.6	7.0	6.7	7.7	7.0	6.4	7.0	7.1	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.7	0.7	0.8	0.8	0.6	0.7	0.7	0.7
Total Max Queue	6.9	5.6	7.0	6.7	7.7	7.0	6.4	7.0	7.1	6.8
Speed	36.5	38.7	37.1	36.8	37.2	36.2	39.2	37.3	36.8	37.3

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	245.2	227.6	278.4	246.8	288.0	231.2	194.4	210.4	1,044.4	1,922.0
Delay	18.7	21.4	25.3	23.2	30.6	21.6	23.4	20.1	25.2	23.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	21.4	25.3	23.2	30.6	21.6	23.4	20.1	25.2	23.3
Mean Queue	1.1	1.2	1.8	1.4	2.2	1.2	1.1	1.1	1.7	1.4
Max Queue	7.4	6.9	8.4	7.5	9.2	6.4	6.2	5.7	7.9	7.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.8	1.4	2.2	1.2	1.1	1.1	1.7	1.4
Total Max Queue	7.4	6.9	8.4	7.5	9.2	6.4	6.2	5.7	7.9	7.3
Speed	17.3	15.6	14.3	14.6	11.1	15.9	16.3	17.3	14.0	15.2

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	566.0	684.8	712.0	679.6	774.0	731.6	700.8	691.6	2,897.2	5,540.4
Delay	8.8	8.1	7.8	7.9	7.6	7.5	8.1	8.3	7.7	8.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	8.1	7.8	7.9	7.6	7.5	8.1	8.3	7.7	8.0
Mean Queue	1.1	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.2	1.2
Max Queue	8.4	8.2	8.4	8.5	8.0	8.2	8.2	8.3	8.3	8.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.2	1.2
Total Max Queue	8.4	8.2	8.4	8.5	8.0	8.2	8.2	8.3	8.3	8.3
Speed	25.7	27.4	28.8	28.0	29.9	29.4	28.4	27.7	29.0	28.2

2025 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	790.4	645.2	635.6	743.2	748.4	958.0	718.4	483.6	3,085.2	5,722.8
Delay	10.5	9.8	9.6	8.7	12.3	17.6	9.4	8.9	12.1	11.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	9.8	9.6	8.7	12.3	17.6	9.4	8.9	12.1	11.0
Mean Queue	1.7	1.3	1.3	1.3	2.0	3.6	1.4	1.1	2.1	1.8
Max Queue	13.2	10.0	9.8	9.9	12.7	19.9	11.3	10.7	13.1	12.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.3	1.3	1.3	2.0	3.6	1.4	1.1	2.1	1.8
Total Max Queue	13.2	10.0	9.8	9.9	12.7	19.9	11.3	10.7	13.1	12.3
Speed	32.6	33.6	32.8	34.7	29.9	26.1	33.3	34.2	30.9	32.0

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	294.0	282.0	299.6	228.0	497.6	381.2	261.2	256.0	1,406.4	2,499.6
Delay	25.4	21.7	21.6	22.1	71.9	110.6	28.0	17.8	56.5	41.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	21.7	21.6	22.1	71.9	110.6	28.0	17.8	56.5	41.7
Mean Queue	1.9	1.5	1.6	1.3	9.9	10.3	1.7	1.1	5.8	3.9
Max Queue	8.9	7.8	8.6	6.5	21.1	21.4	9.7	7.1	14.4	11.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.5	1.6	1.3	9.9	10.3	1.7	1.1	5.8	3.9
Total Max Queue	8.9	7.8	8.6	6.5	21.1	21.4	9.7	7.1	14.4	11.7
Speed	15.0	15.8	15.7	16.5	6.7	4.4	15.7	17.7	10.8	13.1

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	521.6	465.2	423.6	479.2	460.8	460.0	479.6	465.6	1,823.6	3,755.6
Delay	7.6	8.6	8.1	7.3	8.1	7.9	7.8	8.3	7.8	7.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	8.6	8.1	7.3	8.1	7.9	7.8	8.3	7.8	7.9
Mean Queue	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.9	0.8	0.8
Max Queue	8.5	7.7	6.6	7.2	7.4	7.7	7.8	8.0	7.2	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.9	0.8	0.8
Total Max Queue	8.5	7.7	6.6	7.2	7.4	7.7	7.8	8.0	7.2	7.6
Speed	30.2	27.1	28.7	29.8	29.9	31.5	29.3	27.5	30.0	29.3

2030 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	189.6	181.2	195.6	247.6	237.2	276.0	308.0	305.6	956.4	1,940.8
Delay	5.4	4.7	4.4	4.2	4.3	3.8	5.2	5.0	4.2	4.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	4.7	4.4	4.2	4.3	3.8	5.2	5.0	4.2	4.6
Mean Queue	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2
Max Queue	3.6	3.0	3.4	3.9	4.0	4.2	4.8	4.1	3.9	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2
Total Max Queue	3.6	3.0	3.4	3.9	4.0	4.2	4.8	4.1	3.9	3.9
Speed	41.1	43.4	43.6	43.8	43.7	44.3	42.1	41.7	43.8	43.1

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	103.6	140.0	158.0	167.2	170.4	140.8	168.0	122.4	636.4	1,170.4
Delay	22.2	28.6	30.2	31.2	35.5	32.0	38.5	24.0	32.2	30.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	28.6	30.2	31.2	35.5	32.0	38.5	24.0	32.2	30.5
Mean Queue	0.6	1.0	1.3	1.3	1.6	1.1	1.7	0.7	1.3	1.2
Max Queue	5.0	5.0	6.3	5.7	6.6	5.4	7.0	4.7	6.0	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	1.0	1.3	1.3	1.6	1.1	1.7	0.7	1.3	1.2
Total Max Queue	5.0	5.0	6.3	5.7	6.6	5.4	7.0	4.7	6.0	5.7
Speed	16.8	13.3	13.4	11.7	11.8	12.3	10.4	15.8	12.3	13.1

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	999.2	1,152.0	1,175.2	1,178.8	1,243.2	1,268.8	1,200.0	965.6	4,866.0	9,182.8
Delay	7.1	6.6	6.5	6.9	6.9	7.0	6.7	6.9	6.8	6.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	6.6	6.5	6.9	6.9	7.0	6.7	6.9	6.8	6.8
Mean Queue	1.5	1.6	1.6	1.8	1.9	1.9	1.8	1.4	1.8	1.7
Max Queue	8.8	8.8	8.9	8.8	9.0	8.9	8.9	8.7	8.9	8.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.6	1.6	1.8	1.9	1.9	1.8	1.4	1.8	1.7
Total Max Queue	8.8	8.8	8.9	8.8	9.0	8.9	8.9	8.7	8.9	8.9
Speed	30.6	33.3	33.6	33.9	34.5	34.5	33.9	31.2	34.1	33.3

2030 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	471.6	457.2	481.6	497.2	521.6	522.4	461.6	580.4	2,022.8	3,993.6
Delay	8.0	6.3	6.4	6.4	6.7	7.9	7.2	7.4	6.8	7.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	6.3	6.4	6.4	6.7	7.9	7.2	7.4	6.8	7.0
Mean Queue	0.8	0.6	0.6	0.6	0.7	0.9	0.7	0.9	0.7	0.7
Max Queue	7.5	6.2	6.4	6.0	6.8	8.1	6.8	7.9	6.8	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.6	0.6	0.6	0.7	0.9	0.7	0.9	0.7	0.7
Total Max Queue	7.5	6.2	6.4	6.0	6.8	8.1	6.8	7.9	6.8	6.9
Speed	36.4	39.5	39.2	39.1	38.7	36.9	38.0	37.4	38.5	38.2

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	293.2	296.0	309.6	292.0	294.8	272.0	252.0	253.2	1,168.4	2,262.8
Delay	21.7	23.9	31.1	32.2	33.3	32.4	24.4	26.1	32.2	28.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.7	23.9	31.1	32.2	33.3	32.4	24.4	26.1	32.2	28.6
Mean Queue	1.6	1.7	2.4	2.4	2.5	2.2	1.5	1.6	2.4	2.0
Max Queue	8.4	8.0	9.3	10.0	10.2	9.4	8.0	8.9	9.7	9.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	2.4	2.4	2.5	2.2	1.5	1.6	2.4	2.0
Total Max Queue	8.4	8.0	9.3	10.0	10.2	9.4	8.0	8.9	9.7	9.1
Speed	15.7	14.9	12.7	11.4	11.0	12.6	15.2	14.0	11.9	13.3

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	666.8	786.4	806.8	821.2	851.6	793.6	776.8	754.0	3,273.2	6,257.2
Delay	8.4	8.3	7.7	7.7	7.5	7.3	7.1	7.0	7.5	7.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	8.3	7.7	7.7	7.5	7.3	7.1	7.0	7.5	7.6
Mean Queue	1.2	1.5	1.4	1.4	1.4	1.2	1.2	1.1	1.4	1.3
Max Queue	8.7	8.5	8.5	8.7	8.5	8.7	8.6	8.2	8.6	8.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.5	1.4	1.4	1.4	1.2	1.2	1.1	1.4	1.3
Total Max Queue	8.7	8.5	8.5	8.7	8.5	8.7	8.6	8.2	8.6	8.6
Speed	26.6	28.0	29.9	30.2	31.0	29.9	29.7	30.3	30.3	29.5

2030 Do Something

J-04 Metz Bridge Road / A178 North Road

Arm Reference:	A
Name	A178 North Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	843.2	683.2	718.8	808.0	834.4	992.4	986.4	656.8	3,353.6	6,523.2
Delay	12.5	13.2	10.0	12.8	16.7	31.8	28.6	14.1	17.8	17.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	13.2	10.0	12.8	16.7	31.8	28.6	14.1	17.8	17.5
Mean Queue	2.3	1.9	1.5	2.2	3.1	7.5	6.4	1.9	3.6	3.4
Max Queue	14.7	13.2	10.9	13.7	14.8	24.1	22.5	13.6	15.9	15.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	1.9	1.5	2.2	3.1	7.5	6.4	1.9	3.6	3.4
Total Max Queue	14.7	13.2	10.9	13.7	14.8	24.1	22.5	13.6	15.9	15.9
Speed	30.7	29.5	32.4	30.8	27.1	18.4	20.6	30.6	27.2	27.5

Arm Reference:	B
Name	Metz Bridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	342.8	351.2	361.2	322.0	468.4	379.6	380.0	434.8	1,531.2	3,040.0
Delay	35.0	32.9	25.0	44.9	94.2	144.0	133.7	72.0	77.0	73.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	32.9	25.0	44.9	94.2	144.0	133.7	72.0	77.0	73.2
Mean Queue	3.1	2.8	2.3	3.8	12.1	14.3	13.4	7.3	8.1	7.5
Max Queue	13.5	12.4	11.1	13.4	21.5	21.3	21.4	19.7	16.8	16.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	2.8	2.3	3.8	12.1	14.3	13.4	7.3	8.1	7.5
Total Max Queue	13.5	12.4	11.1	13.4	21.5	21.3	21.4	19.7	16.8	16.8
Speed	10.9	13.0	14.5	11.7	5.4	2.8	3.5	7.5	8.6	8.7

Arm Reference:	C
Name	A178 North Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	585.6	462.4	482.0	539.2	528.0	510.0	549.2	556.0	2,059.2	4,212.4
Delay	7.6	8.6	8.3	7.8	9.2	8.5	8.4	9.8	8.4	8.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	8.6	8.3	7.8	9.2	8.5	8.4	9.8	8.4	8.5
Mean Queue	1.0	0.9	0.9	1.0	1.1	1.0	1.1	1.3	1.0	1.0
Max Queue	8.4	7.0	7.3	8.0	8.0	7.8	7.9	7.6	7.8	7.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.9	0.9	1.0	1.1	1.0	1.1	1.3	1.0	1.0
Total Max Queue	8.4	7.0	7.3	8.0	8.0	7.8	7.9	7.6	7.8	7.8
Speed	31.1	28.5	29.4	30.9	30.0	32.6	33.4	29.0	30.7	30.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	141.6	186.4	199.6	221.6	214.0	179.2	210.0	303.6	814.4	1,656.0
Delay	15.2	15.3	14.7	14.0	14.2	15.8	16.4	16.6	14.7	15.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	15.3	14.7	14.0	14.2	15.8	16.4	16.6	14.7	15.2
Mean Queue	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.6	0.4	0.4
Max Queue	1.9	2.0	2.7	2.8	2.3	2.4	2.9	3.6	2.6	2.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.6	0.4	0.4
Total Max Queue	1.9	2.0	2.7	2.8	2.3	2.4	2.9	3.6	2.6	2.6
Speed	29.0	29.7	30.0	31.6	30.9	30.7	29.4	28.4	30.8	30.1

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	35.6	68.8	77.2	104.8	74.4	109.2	96.4	86.4	365.6	652.8
Delay	21.6	20.0	20.9	25.5	26.0	27.6	28.0	29.3	25.0	24.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	20.0	20.9	25.5	26.0	27.6	28.0	29.3	25.0	24.9
Mean Queue	0.2	0.4	0.4	0.7	0.5	0.8	0.7	0.7	0.6	0.5
Max Queue	2.4	2.5	2.9	4.1	3.6	3.9	4.1	3.6	3.6	3.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.4	0.4	0.7	0.5	0.8	0.7	0.7	0.6	0.5
Total Max Queue	2.4	2.5	2.9	4.1	3.6	3.9	4.1	3.6	3.6	3.4
Speed	15.4	17.6	17.0	14.5	14.6	14.6	14.6	13.6	15.2	15.2

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	317.6	359.6	448.4	573.2	563.6	522.0	594.4	556.4	2,107.2	3,935.2
Delay	18.3	17.8	19.9	23.2	25.8	25.8	23.3	31.2	23.7	23.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	17.8	19.9	23.2	25.8	25.8	23.3	31.2	23.7	23.2
Mean Queue	1.4	1.5	2.1	3.3	3.4	3.0	3.3	4.1	2.9	2.8
Max Queue	8.8	9.0	11.2	15.8	16.0	17.0	13.8	15.4	15.0	13.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.5	2.1	3.3	3.4	3.0	3.3	4.1	2.9	2.8
Total Max Queue	8.8	9.0	11.2	15.8	16.0	17.0	13.8	15.4	15.0	13.6
Speed	25.6	26.4	24.0	22.3	20.7	21.4	22.2	18.8	22.1	22.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	421.6	328.8	437.2	376.4	360.4	430.4	358.0	413.6	1,604.4	3,126.4
Delay	19.2	18.3	21.4	18.7	19.2	21.0	18.8	22.9	20.1	20.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	18.3	21.4	18.7	19.2	21.0	18.8	22.9	20.1	20.0
Mean Queue	1.0	0.7	1.1	0.8	0.8	1.0	0.8	1.2	1.0	0.9
Max Queue	5.8	4.5	5.7	5.1	5.0	6.0	4.9	5.5	5.5	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.7	1.1	0.8	0.8	1.0	0.8	1.2	1.0	0.9
Total Max Queue	5.8	4.5	5.7	5.1	5.0	6.0	4.9	5.5	5.5	5.3
Speed	26.2	26.5	25.4	27.1	26.5	25.3	25.3	23.5	26.1	25.8

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	122.4	118.8	137.6	125.6	149.2	145.6	139.2	168.4	558.0	1,106.8
Delay	30.3	24.2	34.1	30.2	28.9	31.6	28.3	31.7	31.2	30.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	24.2	34.1	30.2	28.9	31.6	28.3	31.7	31.2	30.0
Mean Queue	1.0	0.7	1.2	1.0	1.1	1.2	1.0	1.4	1.1	1.1
Max Queue	5.5	4.1	5.8	5.5	5.3	5.4	5.0	6.4	5.5	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.7	1.2	1.0	1.1	1.2	1.0	1.4	1.1	1.1
Total Max Queue	5.5	4.1	5.8	5.5	5.3	5.4	5.0	6.4	5.5	5.4
Speed	13.4	14.7	11.5	12.4	14.9	13.6	14.6	13.0	13.1	13.5

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	539.2	419.2	466.8	517.6	478.8	440.0	415.2	450.0	1,903.2	3,726.8
Delay	22.9	17.3	22.7	20.9	25.8	21.0	21.9	20.8	22.6	21.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	17.3	22.7	20.9	25.8	21.0	21.9	20.8	22.6	21.8
Mean Queue	2.9	1.6	2.5	2.6	2.9	2.1	2.2	2.3	2.5	2.4
Max Queue	14.0	10.2	12.0	13.0	14.0	12.4	11.8	12.6	12.9	12.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	1.6	2.5	2.6	2.9	2.1	2.2	2.3	2.5	2.4
Total Max Queue	14.0	10.2	12.0	13.0	14.0	12.4	11.8	12.6	12.9	12.5
Speed	22.2	27.4	23.6	24.1	21.7	24.4	22.5	25.3	23.5	23.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	366.8	334.8	436.0	441.2	337.2	353.6	351.2	332.8	1,568.0	2,953.6
Delay	30.2	29.9	24.9	26.8	24.3	27.4	24.5	23.3	25.9	26.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	29.9	24.9	26.8	24.3	27.4	24.5	23.3	25.9	26.4
Mean Queue	1.5	1.0	1.3	1.4	1.0	1.2	0.9	0.9	1.2	1.2
Max Queue	7.2	5.9	6.3	6.7	4.5	5.9	4.5	4.4	5.9	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.0	1.3	1.4	1.0	1.2	0.9	0.9	1.2	1.2
Total Max Queue	7.2	5.9	6.3	6.7	4.5	5.9	4.5	4.4	5.9	5.7
Speed	21.3	20.8	21.3	21.6	21.7	20.7	21.6	21.3	21.3	21.3

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	152.8	159.6	90.0	83.2	188.4	142.4	97.2	86.4	504.0	1,000.0
Delay	43.0	37.4	28.1	31.2	36.4	29.8	31.2	23.0	31.4	32.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	37.4	28.1	31.2	36.4	29.8	31.2	23.0	31.4	32.4
Mean Queue	1.8	1.5	0.6	0.7	1.8	1.1	0.8	0.5	1.0	1.1
Max Queue	9.8	6.7	3.8	3.9	8.0	5.8	4.3	3.8	5.4	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.5	0.6	0.7	1.8	1.1	0.8	0.5	1.0	1.1
Total Max Queue	9.8	6.7	3.8	3.9	8.0	5.8	4.3	3.8	5.4	5.7
Speed	11.0	13.6	14.1	13.0	12.3	14.1	12.3	16.4	13.4	13.4

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	359.6	428.0	370.0	370.8	312.8	326.0	296.4	271.6	1,379.6	2,735.2
Delay	17.7	17.9	23.1	17.9	20.2	16.3	14.4	18.0	19.4	18.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	17.9	23.1	17.9	20.2	16.3	14.4	18.0	19.4	18.3
Mean Queue	1.6	1.8	2.0	1.6	1.5	1.2	1.0	1.2	1.6	1.5
Max Queue	10.9	10.1	12.8	8.8	7.9	9.1	7.8	8.3	9.7	9.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.8	2.0	1.6	1.5	1.2	1.0	1.2	1.6	1.5
Total Max Queue	10.9	10.1	12.8	8.8	7.9	9.1	7.8	8.3	9.7	9.5
Speed	28.4	27.8	24.9	27.7	25.4	28.7	31.2	27.0	26.7	27.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	150.8	182.8	209.6	197.2	232.4	210.4	228.0	306.4	849.6	1,717.6
Delay	14.6	13.8	14.9	15.9	14.6	17.0	14.5	16.5	15.6	15.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	13.8	14.9	15.9	14.6	17.0	14.5	16.5	15.6	15.3
Mean Queue	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.4	0.4
Max Queue	2.2	2.2	2.5	2.7	2.8	2.7	3.1	3.8	2.7	2.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.6	0.4	0.4
Total Max Queue	2.2	2.2	2.5	2.7	2.8	2.7	3.1	3.8	2.7	2.7
Speed	30.2	31.4	30.1	29.4	30.6	28.1	31.4	28.8	29.6	29.9

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	46.8	81.6	71.2	108.8	76.4	109.6	90.0	94.8	366.0	679.2
Delay	23.2	22.3	23.7	26.3	29.5	23.4	25.7	26.6	25.7	25.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	22.3	23.7	26.3	29.5	23.4	25.7	26.6	25.7	25.2
Mean Queue	0.3	0.5	0.4	0.7	0.6	0.7	0.6	0.7	0.6	0.6
Max Queue	2.8	3.4	2.6	4.7	3.3	4.4	3.9	3.9	3.8	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.5	0.4	0.7	0.6	0.7	0.6	0.7	0.6	0.6
Total Max Queue	2.8	3.4	2.6	4.7	3.3	4.4	3.9	3.9	3.8	3.6
Speed	14.5	16.2	16.3	13.5	13.0	16.0	15.3	13.4	14.7	14.8

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	318.8	420.4	462.0	573.6	536.0	496.4	653.6	562.0	2,068.0	4,022.8
Delay	17.5	18.4	20.4	26.2	21.7	21.6	31.9	24.4	22.5	22.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	18.4	20.4	26.2	21.7	21.6	31.9	24.4	22.5	22.7
Mean Queue	1.3	1.8	2.3	3.5	2.8	2.4	4.8	3.3	2.7	2.8
Max Queue	10.0	11.0	12.1	15.5	13.4	14.1	18.0	16.6	13.8	13.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.8	2.3	3.5	2.8	2.4	4.8	3.3	2.7	2.8
Total Max Queue	10.0	11.0	12.1	15.5	13.4	14.1	18.0	16.6	13.8	13.8
Speed	25.7	25.4	23.8	20.4	23.0	23.6	18.4	22.2	22.7	22.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-05 **J-05: Newport Road / Marsh Street**

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	460.8	360.8	451.2	418.0	392.8	456.4	372.8	484.4	1,718.4	3,397.2
Delay	18.4	17.1	19.5	20.2	20.1	20.3	20.6	21.7	20.0	19.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	17.1	19.5	20.2	20.1	20.3	20.6	21.7	20.0	19.8
Mean Queue	1.0	0.7	1.0	1.0	0.9	1.1	0.9	1.3	1.0	1.0
Max Queue	7.0	4.6	6.1	5.7	5.8	5.9	5.4	5.8	5.9	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.7	1.0	1.0	0.9	1.1	0.9	1.3	1.0	1.0
Total Max Queue	7.0	4.6	6.1	5.7	5.8	5.9	5.4	5.8	5.9	5.8
Speed	27.1	28.1	25.7	25.1	25.8	25.1	24.4	24.4	25.5	25.7

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	116.8	120.0	143.6	132.0	149.2	169.6	146.8	163.2	594.4	1,141.2
Delay	29.1	27.5	28.2	28.6	30.5	29.6	29.5	35.4	29.2	29.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	27.5	28.2	28.6	30.5	29.6	29.5	35.4	29.2	29.7
Mean Queue	0.9	0.8	1.1	0.9	1.2	1.3	1.1	1.5	1.1	1.1
Max Queue	5.7	4.5	5.6	4.7	5.4	6.1	5.4	7.0	5.5	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	0.8	1.1	0.9	1.2	1.3	1.1	1.5	1.1	1.1
Total Max Queue	5.7	4.5	5.6	4.7	5.4	6.1	5.4	7.0	5.5	5.5
Speed	14.0	13.0	14.2	14.4	12.6	12.5	13.0	12.0	13.4	13.3

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	472.0	446.0	482.8	515.6	495.6	449.6	402.0	457.2	1,943.6	3,720.8
Delay	21.4	18.9	17.5	22.0	25.3	20.9	19.9	22.6	21.4	21.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	18.9	17.5	22.0	25.3	20.9	19.9	22.6	21.4	21.1
Mean Queue	2.3	1.9	2.0	2.6	2.9	2.2	1.8	2.5	2.4	2.3
Max Queue	13.9	12.1	11.9	13.8	15.7	13.0	12.5	14.0	13.6	13.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	1.9	2.0	2.6	2.9	2.2	1.8	2.5	2.4	2.3
Total Max Queue	13.9	12.1	11.9	13.8	15.7	13.0	12.5	14.0	13.6	13.4
Speed	23.7	24.9	27.1	22.2	22.3	24.2	24.6	23.6	24.0	24.1

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	468.4	368.0	469.2	488.0	357.2	438.8	445.2	460.4	1,753.2	3,495.2
Delay	21.9	20.4	17.9	18.4	18.3	18.8	17.9	23.6	18.3	19.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	20.4	17.9	18.4	18.3	18.8	17.9	23.6	18.3	19.5
Mean Queue	1.2	0.9	1.0	1.0	0.8	1.0	0.9	1.3	0.9	1.0
Max Queue	6.2	4.4	5.7	6.1	5.5	6.0	5.6	6.6	5.8	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	0.9	1.0	1.0	0.8	1.0	0.9	1.3	0.9	1.0
Total Max Queue	6.2	4.4	5.7	6.1	5.5	6.0	5.6	6.6	5.8	5.8
Speed	24.4	25.6	27.5	26.7	27.0	26.5	26.6	23.6	26.9	26.1

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	171.6	160.0	107.6	82.4	178.0	154.4	111.6	100.4	522.4	1,066.0
Delay	29.3	29.9	26.7	28.7	28.1	28.8	26.7	28.5	28.1	28.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	29.9	26.7	28.7	28.1	28.8	26.7	28.5	28.1	28.3
Mean Queue	1.3	1.2	0.7	0.6	1.4	1.1	0.7	0.7	0.9	1.0
Max Queue	7.4	6.1	4.3	3.9	6.6	6.3	3.7	4.0	5.3	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.2	0.7	0.6	1.4	1.1	0.7	0.7	0.9	1.0
Total Max Queue	7.4	6.1	4.3	3.9	6.6	6.3	3.7	4.0	5.3	5.3
Speed	12.9	13.0	15.4	13.5	13.3	13.9	14.4	12.6	14.0	13.7

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	382.8	423.6	404.8	386.8	361.6	362.0	371.6	335.6	1,515.2	3,028.8
Delay	21.6	20.7	24.0	18.2	22.0	19.2	19.7	15.2	20.8	20.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.6	20.7	24.0	18.2	22.0	19.2	19.7	15.2	20.8	20.2
Mean Queue	1.9	2.1	2.4	1.6	2.0	1.7	1.7	1.2	1.9	1.8
Max Queue	11.8	11.4	11.5	10.9	10.8	10.0	10.2	8.0	10.8	10.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	2.1	2.4	1.6	2.0	1.7	1.7	1.2	1.9	1.8
Total Max Queue	11.8	11.4	11.5	10.9	10.8	10.0	10.2	8.0	10.8	10.6
Speed	25.2	25.4	25.0	27.3	24.1	26.2	25.4	29.5	25.6	26.0

2030 Do Minimum

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	172.0	182.8	216.4	228.4	244.8	186.4	285.2	330.0	876.0	1,846.0
Delay	14.8	15.5	15.3	15.6	15.6	15.6	18.3	18.3	15.5	16.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	15.5	15.3	15.6	15.6	15.6	18.3	18.3	15.5	16.0
Mean Queue	0.3	0.3	0.4	0.4	0.5	0.4	0.6	0.7	0.4	0.5
Max Queue	2.3	2.3	2.7	3.1	3.1	2.8	3.4	4.3	2.9	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.3	0.4	0.4	0.5	0.4	0.6	0.7	0.4	0.5
Total Max Queue	2.3	2.3	2.7	3.1	3.1	2.8	3.4	4.3	2.9	3.0
Speed	29.6	29.6	29.5	30.2	29.5	30.0	27.3	27.2	29.8	29.2

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	49.6	68.4	75.2	120.8	93.2	113.6	100.0	94.4	402.8	715.2
Delay	18.9	20.5	26.7	30.6	28.7	24.1	28.9	28.9	27.5	26.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	20.5	26.7	30.6	28.7	24.1	28.9	28.9	27.5	26.1
Mean Queue	0.2	0.3	0.5	0.9	0.7	0.7	0.7	0.7	0.7	0.6
Max Queue	2.8	3.1	3.2	4.8	3.6	4.3	4.0	3.7	4.0	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.3	0.5	0.9	0.7	0.7	0.7	0.7	0.7	0.6
Total Max Queue	2.8	3.1	3.2	4.8	3.6	4.3	4.0	3.7	4.0	3.7
Speed	18.0	16.7	13.0	13.2	14.4	15.2	12.4	14.3	14.0	14.6

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	272.8	381.2	444.4	554.0	540.0	494.0	638.8	586.0	2,032.4	3,911.2
Delay	18.9	18.5	20.7	23.1	26.8	24.5	29.5	25.3	23.8	23.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	18.5	20.7	23.1	26.8	24.5	29.5	25.3	23.8	23.5
Mean Queue	1.2	1.7	2.2	3.2	3.3	2.8	4.3	3.6	2.9	2.8
Max Queue	10.2	11.3	11.5	16.4	16.8	14.4	18.6	16.7	14.8	14.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.7	2.2	3.2	3.3	2.8	4.3	3.6	2.9	2.8
Total Max Queue	10.2	11.3	11.5	16.4	16.8	14.4	18.6	16.7	14.8	14.5
Speed	24.3	24.8	23.6	21.5	21.4	21.8	18.8	20.5	22.1	22.1

2030 Do Minimum

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	448.4	370.0	443.6	432.4	412.8	496.4	407.2	498.4	1,785.2	3,509.2
Delay	18.9	18.5	25.5	23.7	19.5	23.0	20.2	20.3	22.9	21.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.9	18.5	25.5	23.7	19.5	23.0	20.2	20.3	22.9	21.4
Mean Queue	1.0	0.8	1.5	1.1	1.0	1.4	1.0	1.2	1.2	1.1
Max Queue	6.6	5.0	6.6	6.2	5.9	6.8	5.3	6.6	6.4	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	1.5	1.1	1.0	1.4	1.0	1.2	1.2	1.1
Total Max Queue	6.6	5.0	6.6	6.2	5.9	6.8	5.3	6.6	6.4	6.2
Speed	27.1	27.1	23.1	24.0	26.3	24.4	25.8	24.6	24.4	25.2

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	114.4	118.0	158.0	137.6	132.0	144.8	152.8	154.0	572.4	1,111.6
Delay	30.7	27.5	36.3	30.3	32.2	29.7	32.8	28.3	32.1	31.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	27.5	36.3	30.3	32.2	29.7	32.8	28.3	32.1	31.1
Mean Queue	1.0	0.8	1.6	1.0	1.1	1.1	1.3	1.1	1.2	1.1
Max Queue	6.0	4.8	7.6	5.7	5.5	5.8	6.2	5.7	6.2	5.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	1.6	1.0	1.1	1.1	1.3	1.1	1.2	1.1
Total Max Queue	6.0	4.8	7.6	5.7	5.5	5.8	6.2	5.7	6.2	5.9
Speed	12.2	15.1	11.9	12.9	12.6	13.2	12.5	13.1	12.6	12.9

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	568.4	541.6	532.0	588.8	557.2	518.4	463.6	515.2	2,196.4	4,285.2
Delay	29.0	27.4	26.5	25.1	26.5	21.0	23.3	21.9	24.8	25.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	27.4	26.5	25.1	26.5	21.0	23.3	21.9	24.8	25.1
Mean Queue	3.8	3.6	3.5	3.3	3.4	2.5	2.5	2.7	3.2	3.2
Max Queue	18.4	17.9	17.1	17.8	17.0	15.5	13.0	14.9	16.9	16.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	3.6	3.5	3.3	3.4	2.5	2.5	2.7	3.2	3.2
Total Max Queue	18.4	17.9	17.1	17.8	17.0	15.5	13.0	14.9	16.9	16.5
Speed	19.4	21.0	20.5	23.0	22.1	25.3	23.5	23.0	22.7	22.3

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-05 **J-05: Newport Road / Marsh Street**

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	424.0	392.0	488.8	509.6	403.6	440.0	455.2	503.2	1,842.0	3,616.4
Delay	20.6	18.1	21.1	20.5	19.4	19.7	20.3	21.0	20.2	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	18.1	21.1	20.5	19.4	19.7	20.3	21.0	20.2	20.1
Mean Queue	1.0	0.8	1.2	1.2	0.9	1.0	1.1	1.3	1.1	1.1
Max Queue	6.6	5.5	6.8	6.8	5.3	5.8	6.8	6.9	6.2	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	1.2	1.2	0.9	1.0	1.1	1.3	1.1	1.1
Total Max Queue	6.6	5.5	6.8	6.8	5.3	5.8	6.8	6.9	6.2	6.3
Speed	24.8	26.8	24.7	24.4	26.0	25.6	25.8	24.3	25.2	25.3

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	167.6	172.8	126.8	99.6	192.8	151.6	116.8	102.0	570.8	1,130.0
Delay	31.4	30.3	31.9	27.7	31.4	28.2	28.8	29.8	29.8	29.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	30.3	31.9	27.7	31.4	28.2	28.8	29.8	29.8	29.9
Mean Queue	1.4	1.3	1.0	0.7	1.6	1.1	0.8	0.8	1.1	1.1
Max Queue	6.5	6.2	4.7	4.1	6.5	6.0	4.8	4.5	5.3	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.3	1.0	0.7	1.6	1.1	0.8	0.8	1.1	1.1
Total Max Queue	6.5	6.2	4.7	4.1	6.5	6.0	4.8	4.5	5.3	5.4
Speed	12.3	13.1	12.1	15.6	12.4	13.3	12.7	13.7	13.3	13.2

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	376.0	401.2	390.0	376.0	356.8	346.4	352.0	313.6	1,469.2	2,912.0
Delay	22.1	19.4	20.5	23.1	20.2	18.4	19.2	17.4	20.5	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	19.4	20.5	23.1	20.2	18.4	19.2	17.4	20.5	20.1
Mean Queue	1.9	1.9	2.0	2.0	1.8	1.5	1.6	1.3	1.8	1.7
Max Queue	13.9	12.0	11.6	11.1	10.1	9.5	10.3	10.0	10.6	11.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.9	2.0	2.0	1.8	1.5	1.6	1.3	1.8	1.7
Total Max Queue	13.9	12.0	11.6	11.1	10.1	9.5	10.3	10.0	10.6	11.0
Speed	25.3	25.9	25.9	23.5	27.1	27.1	26.1	28.3	25.9	26.1

2025 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	153.6	188.8	230.8	204.8	222.8	207.6	250.0	304.8	866.0	1,763.2
Delay	14.7	14.4	15.3	14.6	14.6	15.0	16.0	17.2	14.9	15.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	14.4	15.3	14.6	14.6	15.0	16.0	17.2	14.9	15.2
Mean Queue	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.7	0.4	0.4
Max Queue	2.2	2.3	2.9	2.6	2.6	2.3	3.0	3.8	2.6	2.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.7	0.4	0.4
Total Max Queue	2.2	2.3	2.9	2.6	2.6	2.3	3.0	3.8	2.6	2.7
Speed	29.9	30.5	29.3	30.9	31.4	30.9	29.2	28.2	30.6	30.1

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	48.8	73.2	64.4	109.2	77.2	108.8	106.0	98.4	359.6	686.0
Delay	20.6	22.3	25.3	27.3	25.8	25.5	31.2	30.0	26.0	26.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	22.3	25.3	27.3	25.8	25.5	31.2	30.0	26.0	26.0
Mean Queue	0.3	0.4	0.4	0.7	0.5	0.7	0.9	0.8	0.6	0.6
Max Queue	2.8	3.1	3.5	4.3	3.3	4.2	4.6	4.2	3.8	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.4	0.4	0.7	0.5	0.7	0.9	0.8	0.6	0.6
Total Max Queue	2.8	3.1	3.5	4.3	3.3	4.2	4.6	4.2	3.8	3.8
Speed	17.0	16.9	15.4	12.5	15.5	14.5	13.2	13.1	14.5	14.7

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	325.6	418.4	482.0	576.8	560.4	540.4	647.2	604.0	2,159.6	4,154.8
Delay	18.5	18.3	18.4	22.3	27.0	22.7	31.9	25.2	22.6	23.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	18.3	18.4	22.3	27.0	22.7	31.9	25.2	22.6	23.0
Mean Queue	1.4	1.8	2.0	3.1	3.5	2.8	4.8	3.6	2.9	2.9
Max Queue	10.9	10.7	12.0	14.5	16.2	13.8	18.6	17.0	14.1	14.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.8	2.0	3.1	3.5	2.8	4.8	3.6	2.9	2.9
Total Max Queue	10.9	10.7	12.0	14.5	16.2	13.8	18.6	17.0	14.1	14.2
Speed	25.1	25.4	25.1	23.0	20.3	22.2	17.9	22.0	22.6	22.6

2025 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	444.0	365.6	468.4	386.8	408.0	458.0	400.8	502.4	1,721.2	3,434.0
Delay	22.2	17.9	19.9	18.0	19.9	22.1	19.2	22.0	20.0	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	17.9	19.9	18.0	19.9	22.1	19.2	22.0	20.0	20.1
Mean Queue	1.2	0.8	1.1	0.8	1.0	1.2	0.9	1.3	1.0	1.0
Max Queue	6.8	4.9	5.8	5.3	5.6	6.1	4.8	6.8	5.7	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	0.8	1.1	0.8	1.0	1.2	0.9	1.3	1.0	1.0
Total Max Queue	6.8	4.9	5.8	5.3	5.6	6.1	4.8	6.8	5.7	5.8
Speed	24.5	27.8	25.8	26.7	26.0	23.5	26.2	24.4	25.5	25.6

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	153.2	112.4	132.8	132.0	127.2	162.8	151.6	159.6	554.8	1,131.6
Delay	33.7	26.1	29.3	26.9	28.1	31.5	32.4	34.1	29.0	30.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.7	26.1	29.3	26.9	28.1	31.5	32.4	34.1	29.0	30.1
Mean Queue	1.3	0.8	1.1	0.8	1.0	1.3	1.4	1.4	1.0	1.1
Max Queue	6.8	4.4	5.4	5.1	4.8	5.9	6.3	7.0	5.3	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	0.8	1.1	0.8	1.0	1.3	1.4	1.4	1.0	1.1
Total Max Queue	6.8	4.4	5.4	5.1	4.8	5.9	6.3	7.0	5.3	5.7
Speed	12.5	14.9	13.3	14.5	14.0	12.8	13.4	11.8	13.7	13.4

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	499.2	467.6	470.4	514.0	510.8	421.2	402.8	444.0	1,916.4	3,730.0
Delay	23.9	21.3	18.7	23.0	23.1	19.7	21.3	18.6	21.2	21.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	21.3	18.7	23.0	23.1	19.7	21.3	18.6	21.2	21.2
Mean Queue	2.7	2.3	2.0	2.7	2.7	2.0	1.9	1.9	2.4	2.3
Max Queue	15.6	12.9	12.5	14.3	14.8	11.9	13.5	11.1	13.4	13.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.3	2.0	2.7	2.7	2.0	1.9	1.9	2.4	2.3
Total Max Queue	15.6	12.9	12.5	14.3	14.8	11.9	13.5	11.1	13.4	13.3
Speed	21.9	23.9	27.7	21.7	23.0	25.6	24.5	26.9	24.5	24.4

2025 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	429.2	383.2	480.4	500.8	381.2	480.8	461.2	444.0	1,843.2	3,560.8
Delay	19.5	19.3	18.3	19.5	19.7	22.3	21.9	20.6	20.0	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	19.3	18.3	19.5	19.7	22.3	21.9	20.6	20.0	20.1
Mean Queue	1.0	0.9	1.0	1.2	0.9	1.2	1.2	1.1	1.1	1.1
Max Queue	5.6	5.3	5.5	6.1	5.6	6.2	5.9	6.3	5.9	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.9	1.0	1.2	0.9	1.2	1.2	1.1	1.1	1.1
Total Max Queue	5.6	5.3	5.5	6.1	5.6	6.2	5.9	6.3	5.9	5.8
Speed	27.3	26.0	27.4	24.9	25.4	24.2	24.6	24.8	25.5	25.6

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	164.4	163.2	115.6	95.6	194.0	147.2	119.6	109.2	552.4	1,108.8
Delay	28.5	31.3	29.1	32.0	28.9	30.4	29.7	28.3	30.1	29.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	31.3	29.1	32.0	28.9	30.4	29.7	28.3	30.1	29.8
Mean Queue	1.3	1.2	0.9	0.8	1.4	1.2	0.9	0.8	1.1	1.1
Max Queue	6.5	6.0	5.0	4.3	6.9	5.5	4.7	4.3	5.4	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.2	0.9	0.8	1.4	1.2	0.9	0.8	1.1	1.1
Total Max Queue	6.5	6.0	5.0	4.3	6.9	5.5	4.7	4.3	5.4	5.4
Speed	13.2	11.7	13.0	13.3	13.3	13.3	13.2	15.1	13.2	13.3

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	406.4	426.8	393.2	384.0	349.6	359.6	331.6	350.0	1,486.4	3,001.2
Delay	21.9	19.1	21.9	17.8	20.1	17.7	18.2	18.7	19.4	19.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	19.1	21.9	17.8	20.1	17.7	18.2	18.7	19.4	19.4
Mean Queue	2.1	1.9	2.1	1.5	1.7	1.5	1.4	1.6	1.7	1.7
Max Queue	13.0	10.5	12.0	10.0	9.4	10.5	9.5	9.7	10.5	10.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	1.9	2.1	1.5	1.7	1.5	1.4	1.6	1.7	1.7
Total Max Queue	13.0	10.5	12.0	10.0	9.4	10.5	9.5	9.7	10.5	10.6
Speed	25.4	26.3	26.1	27.5	25.3	28.4	27.0	27.2	26.8	26.7

2030 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	143.2	186.4	238.0	208.4	244.8	218.0	261.6	322.4	909.2	1,822.8
Delay	16.9	16.3	14.9	15.2	14.7	14.8	15.4	16.4	14.9	15.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	16.3	14.9	15.2	14.7	14.8	15.4	16.4	14.9	15.5
Mean Queue	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.4	0.4
Max Queue	2.2	2.6	2.9	3.0	3.0	2.9	3.2	3.9	3.0	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.4	0.4
Total Max Queue	2.2	2.6	2.9	3.0	3.0	2.9	3.2	3.9	3.0	3.0
Speed	26.9	28.2	30.1	29.9	30.8	30.9	30.3	28.8	30.4	29.6

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	54.8	64.0	77.6	109.2	80.8	91.2	84.8	91.2	358.8	653.6
Delay	22.3	21.5	25.0	25.2	28.2	26.6	27.8	30.3	26.3	25.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	21.5	25.0	25.2	28.2	26.6	27.8	30.3	26.3	25.9
Mean Queue	0.3	0.3	0.5	0.7	0.6	0.6	0.6	0.7	0.6	0.6
Max Queue	2.6	2.7	3.5	3.9	3.3	3.6	3.7	4.3	3.6	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.3	0.5	0.7	0.6	0.6	0.6	0.7	0.6	0.6
Total Max Queue	2.6	2.7	3.5	3.9	3.3	3.6	3.7	4.3	3.6	3.5
Speed	15.2	16.8	14.3	14.9	13.2	13.5	13.8	11.4	14.0	14.1

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	285.2	384.4	473.2	532.8	491.2	470.8	611.6	606.8	1,968.0	3,856.0
Delay	18.5	18.4	21.3	21.1	21.8	25.7	26.7	35.6	22.5	23.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	18.4	21.3	21.1	21.8	25.7	26.7	35.6	22.5	23.5
Mean Queue	1.2	1.7	2.4	2.7	2.5	2.8	3.7	5.2	2.6	2.8
Max Queue	9.2	10.7	12.6	13.5	13.4	13.7	16.8	20.0	13.3	13.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.7	2.4	2.7	2.5	2.8	3.7	5.2	2.6	2.8
Total Max Queue	9.2	10.7	12.6	13.5	13.4	13.7	16.8	20.0	13.3	13.7
Speed	25.1	25.5	22.7	23.3	24.3	21.9	20.0	17.4	23.0	22.6

2030 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	456.8	345.2	469.6	416.8	409.2	474.0	403.2	498.4	1,769.6	3,473.2
Delay	19.8	18.1	19.9	17.6	19.5	19.2	21.1	22.6	19.1	19.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	18.1	19.9	17.6	19.5	19.2	21.1	22.6	19.1	19.7
Mean Queue	1.1	0.7	1.1	0.8	0.9	1.1	1.0	1.4	1.0	1.0
Max Queue	6.9	4.2	5.6	5.3	5.0	6.4	5.0	6.6	5.6	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	0.7	1.1	0.8	0.9	1.1	1.0	1.4	1.0	1.0
Total Max Queue	6.9	4.2	5.6	5.3	5.0	6.4	5.0	6.6	5.6	5.6
Speed	25.8	27.9	25.0	27.3	25.3	26.3	24.7	23.8	25.9	25.8

Arm Reference:	B
Name	Marsh Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	125.6	128.8	147.2	137.6	128.8	165.6	154.8	163.6	579.2	1,152.0
Delay	30.0	24.8	29.1	27.9	30.8	31.8	30.5	31.0	29.9	29.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	24.8	29.1	27.9	30.8	31.8	30.5	31.0	29.9	29.5
Mean Queue	1.0	0.8	1.2	0.9	1.0	1.4	1.2	1.3	1.1	1.1
Max Queue	5.9	4.4	5.9	4.6	4.7	6.4	5.8	6.0	5.4	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	1.2	0.9	1.0	1.4	1.2	1.3	1.1	1.1
Total Max Queue	5.9	4.4	5.9	4.6	4.7	6.4	5.8	6.0	5.4	5.5
Speed	13.5	14.7	14.7	14.3	13.5	12.1	12.9	11.8	13.6	13.4

Arm Reference:	C
Name	B6541 Newport Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	528.4	493.2	480.0	536.0	510.4	463.6	426.8	465.6	1,990.0	3,904.0
Delay	24.9	22.4	20.3	20.6	24.4	20.2	21.2	23.4	21.4	22.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	22.4	20.3	20.6	24.4	20.2	21.2	23.4	21.4	22.1
Mean Queue	3.0	2.5	2.4	2.4	2.9	2.2	2.1	2.7	2.5	2.5
Max Queue	16.8	14.1	13.2	13.5	14.2	12.6	12.7	14.6	13.4	13.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	2.5	2.4	2.4	2.9	2.2	2.1	2.7	2.5	2.5
Total Max Queue	16.8	14.1	13.2	13.5	14.2	12.6	12.7	14.6	13.4	13.9
Speed	21.7	22.6	24.0	24.9	22.3	24.6	24.8	23.5	24.0	23.6

2030 Do Something

J-05 Newport Road / Marsh Street

Arm Reference:	A
Name	B6541 Newport Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	446.0	385.6	504.0	581.2	480.8	502.4	500.0	496.4	2,068.4	3,896.4
Delay	19.3	20.0	20.1	21.7	24.2	19.2	20.6	20.4	21.3	20.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	20.0	20.1	21.7	24.2	19.2	20.6	20.4	21.3	20.8
Mean Queue	1.0	0.9	1.2	1.5	1.3	1.2	1.2	1.2	1.3	1.2
Max Queue	6.5	5.7	7.1	8.2	6.7	7.0	6.1	7.3	7.3	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.9	1.2	1.5	1.3	1.2	1.2	1.2	1.3	1.2
Total Max Queue	6.5	5.7	7.1	8.2	6.7	7.0	6.1	7.3	7.3	6.9
Speed	26.0	25.6	25.3	23.9	22.2	25.7	24.5	24.1	24.2	24.6

Arm Reference:	B
Name	Marsh Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	162.8	169.2	130.4	114.4	223.2	154.8	119.2	106.4	622.8	1,180.4
Delay	32.5	30.1	31.0	33.0	33.6	25.4	27.7	27.1	30.7	30.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	30.1	31.0	33.0	33.6	25.4	27.7	27.1	30.7	30.1
Mean Queue	1.4	1.3	1.0	1.0	2.0	1.0	0.8	0.7	1.2	1.2
Max Queue	7.8	6.2	5.1	4.9	8.2	5.1	4.5	3.8	5.8	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.3	1.0	1.0	2.0	1.0	0.8	0.7	1.2	1.2
Total Max Queue	7.8	6.2	5.1	4.9	8.2	5.1	4.5	3.8	5.8	5.7
Speed	11.8	13.3	11.7	13.4	12.1	15.9	12.8	14.4	13.3	13.2

Arm Reference:	C
Name	B6541 Newport Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	406.0	437.6	434.8	366.0	373.6	322.0	346.0	353.6	1,496.4	3,039.6
Delay	20.2	22.1	25.2	20.3	20.2	17.5	19.1	18.8	20.8	20.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	22.1	25.2	20.3	20.2	17.5	19.1	18.8	20.8	20.5
Mean Queue	1.9	2.3	2.6	1.8	1.8	1.4	1.5	1.6	1.9	1.9
Max Queue	11.9	12.6	13.8	10.6	9.9	9.3	9.7	9.5	10.9	10.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	2.3	2.6	1.8	1.8	1.4	1.5	1.6	1.9	1.9
Total Max Queue	11.9	12.6	13.8	10.6	9.9	9.3	9.7	9.5	10.9	10.9
Speed	25.7	24.4	23.9	26.4	26.2	28.5	25.7	27.2	26.3	26.0

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-06 Lower Feversham Street / Cleveland Street

Arm Reference:	A
Name:	Cleveland Street (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	92.4	110.8	116.8	160.4	180.8	159.2	146.4	90.8	617.2	1,057.6
Delay	2.0	3.1	4.0	4.1	2.8	3.9	4.2	4.3	3.7	3.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	3.1	4.0	4.1	2.8	3.9	4.2	4.3	3.7	3.6
Mean Queue	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Max Queue	3.2	4.0	3.9	4.2	4.0	3.9	3.9	3.4	4.0	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Total Max Queue	3.2	4.0	3.9	4.2	4.0	3.9	3.9	3.4	4.0	3.8
Speed	50.3	49.8	47.7	47.3	47.5	47.5	47.4	45.7	47.5	47.8

Arm Reference:	B
Name:	Lower Feversham Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	3.2	4.8	7.2	6.4	6.4	5.6	6.8	6.8	25.6	47.2
Delay	2.5	1.8	2.1	2.0	1.9	3.3	2.1	2.0	2.3	2.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	1.8	2.1	2.0	1.9	3.3	2.1	2.0	2.3	2.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Speed	38.4	41.0	39.9	39.2	40.4	36.3	40.2	40.3	38.9	39.4

Arm Reference:	C
Name:	Cleveland Street (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	325.6	351.6	476.8	547.2	528.8	548.0	484.4	334.8	2,100.8	3,597.2
Delay	0.9	0.9	0.9	1.1	1.5	1.6	6.0	21.0	1.3	3.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	0.9	0.9	1.1	1.5	1.6	6.0	21.0	1.3	3.9
Mean Queue	0.0	0.0	0.0	0.0	0.3	1.2	1.2	0.7	0.4	0.4
Max Queue	1.4	0.8	1.1	1.3	5.5	5.9	5.6	5.3	3.5	3.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.3	1.2	1.2	0.7	0.4	0.4
Total Max Queue	1.4	0.8	1.1	1.3	5.5	5.9	5.6	5.3	3.5	3.4
Speed	48.3	48.5	48.5	47.3	47.1	46.4	46.1	46.2	47.3	47.3

Arm Reference:	D
Name:	Feversham Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	3.6	1.6	1.2	2.8	5.2	2.4	7.6	2.4	11.6	26.8
Delay	0.7	0.7	0.8	0.7	0.9	0.5	0.8	0.7	0.7	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.7	0.8	0.7	0.9	0.5	0.8	0.7	0.7	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	50.4	52.7	47.6	47.5	50.0	49.2	48.9	49.8	48.6	49.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-06 Lower Feversham Street / Cleveland Street

Arm Reference:	A
Name:	Cleveland Street (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	113.6	92.4	109.6	76.4	93.6	74.4	86.4	66.8	354.0	713.2
Delay	0.7	0.9	1.0	0.4	0.8	0.6	0.7	1.0	0.7	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.9	1.0	0.4	0.8	0.6	0.7	1.0	0.7	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	2.9	2.8	2.7	2.1	2.9	2.3	2.5	2.5	2.5	2.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	2.9	2.8	2.7	2.1	2.9	2.3	2.5	2.5	2.5	2.6
Speed	51.9	51.0	52.1	51.8	51.7	52.0	51.2	51.3	51.9	51.6

Arm Reference:	B
Name:	Lower Feversham Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	8.0	8.8	9.2	5.6	9.2	6.0	8.8	7.6	30.0	63.2
Delay	2.2	1.9	1.7	1.8	1.9	1.9	2.0	1.8	1.8	1.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	1.9	1.7	1.8	1.9	1.9	2.0	1.8	1.8	1.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	40.1	41.5	40.7	42.8	41.0	41.4	40.3	41.5	41.5	41.2

Arm Reference:	C
Name:	Cleveland Street (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	198.4	221.6	246.4	235.6	247.2	252.8	231.6	195.2	982.0	1,828.8
Delay	1.7	1.9	1.5	2.0	2.0	1.8	1.7	1.9	1.8	1.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	1.9	1.5	2.0	2.0	1.8	1.7	1.9	1.8	1.8
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.9	3.9	3.4	3.9	4.2	4.1	3.6	3.6	3.9	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.9	3.9	3.4	3.9	4.2	4.1	3.6	3.6	3.9	3.8
Speed	47.5	47.1	47.4	47.4	46.4	47.1	47.0	47.2	47.1	47.1

Arm Reference:	D
Name:	Feversham Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	17.6	15.6	18.4	8.0	14.4	9.6	16.0	13.6	50.4	113.2
Delay	0.7	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.8	0.7	0.8	0.8	0.7	0.7	0.7	0.8	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	50.0	49.9	50.4	50.3	49.1	51.2	49.5	49.6	50.2	50.0

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-06 Lower Feversham Street / Cleveland Street

Arm Reference:	A
Name:	Cleveland Street (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	184.8	145.2	166.0	152.4	187.6	180.4	125.6	111.2	686.4	1,253.2
Delay	0.2	3.1	2.9	2.6	3.5	3.3	4.0	3.8	3.1	2.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	3.1	2.9	2.6	3.5	3.3	4.0	3.8	3.1	2.9
Mean Queue	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Max Queue	2.8	3.6	3.7	3.7	4.1	3.7	3.9	3.8	3.8	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Max Queue	2.8	3.6	3.7	3.7	4.1	3.7	3.9	3.8	3.8	3.7
Speed	53.4	49.1	49.0	49.9	48.8	48.8	48.2	47.8	49.1	49.4

Arm Reference:	B
Name:	Lower Feversham Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	5.6	4.4	6.0	12.0	10.8	15.2	10.4	8.0	44.0	72.4
Delay	2.0	2.7	2.1	2.2	2.1	2.2	2.1	1.8	2.2	2.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	2.7	2.1	2.2	2.1	2.2	2.1	1.8	2.2	2.2
Mean Queue	0.0	0.0	0.1	0.2	0.4	0.8	0.8	0.9	0.4	0.4
Max Queue	0.0	0.0	0.1	0.3	0.6	0.8	0.8	0.9	0.5	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.2	0.4	0.8	0.8	0.9	0.4	0.4
Total Max Queue	0.0	0.0	0.1	0.3	0.6	0.8	0.8	0.9	0.5	0.4
Speed	40.9	38.1	41.2	39.5	40.4	40.4	40.4	41.5	40.4	40.3

Arm Reference:	C
Name:	Cleveland Street (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	188.0	160.4	184.8	204.0	263.6	214.0	186.4	210.0	866.4	1,611.2
Delay	0.8	0.8	16.1	0.8	0.9	0.8	0.8	0.8	4.7	2.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.8	16.1	0.8	0.9	0.8	0.8	0.8	4.7	2.9
Mean Queue	0.6	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Queue	4.3	1.1	1.4	1.1	1.8	1.6	1.4	1.2	1.5	1.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Max Queue	4.3	1.1	1.4	1.1	1.8	1.6	1.4	1.2	1.5	1.7
Speed	48.6	48.6	48.8	48.9	48.0	48.7	48.9	48.4	48.6	48.6

Arm Reference:	D
Name:	Feversham Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	5.6	5.2	6.0	3.6	4.8	4.0	3.6	3.2	18.4	36.0
Delay	0.9	0.9	0.9	0.7	0.8	1.0	0.8	0.8	0.8	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	0.9	0.9	0.7	0.8	1.0	0.8	0.8	0.8	0.8
Mean Queue	0.0	0.2	0.5	0.6	0.7	0.8	0.8	1.0	0.6	0.6
Max Queue	0.0	0.5	0.5	0.6	0.7	0.8	1.0	1.0	0.7	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.2	0.5	0.6	0.7	0.8	0.8	1.0	0.6	0.6
Total Max Queue	0.0	0.5	0.5	0.6	0.7	0.8	1.0	1.0	0.7	0.6
Speed	50.1	47.0	49.4	48.0	48.4	49.7	51.3	49.2	48.9	49.1

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	182.8	281.2	338.0	355.6	350.4	382.4	358.0	367.2	1,426.4	2,615.6
Delay	22.0	25.8	31.7	31.2	31.3	37.3	35.6	40.1	32.9	32.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	25.8	31.7	31.2	31.3	37.3	35.6	40.1	32.9	32.0
Mean Queue	1.0	1.8	2.5	2.8	2.7	3.5	3.1	3.7	2.9	2.7
Max Queue	8.5	12.6	14.0	15.0	14.2	15.8	15.6	16.3	14.8	14.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.8	2.5	2.8	2.7	3.5	3.1	3.7	2.9	2.7
Total Max Queue	8.5	12.6	14.0	15.0	14.2	15.8	15.6	16.3	14.8	14.1
Speed	17.1	20.8	21.9	23.5	22.8	22.5	21.9	22.2	22.7	21.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	167.6	189.6	238.0	207.2	213.2	252.0	207.6	228.0	910.4	1,703.2
Delay	20.4	21.8	23.8	25.4	22.7	26.3	24.1	26.7	24.6	24.0
Delay Virtual Queue	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	20.5	21.9	23.9	25.5	22.7	26.3	24.2	26.8	24.6	24.0
Mean Queue	0.8	1.0	1.4	1.3	1.2	1.6	1.3	1.5	1.4	1.3
Max Queue	5.0	5.1	6.2	6.9	5.9	7.4	5.8	6.7	6.6	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.0	1.0	1.1	1.0	1.1	1.0	1.1	1.1	1.0
Total Mean Queue	0.8	1.0	1.4	1.3	1.2	1.6	1.3	1.5	1.4	1.3
Total Max Queue	5.9	6.1	7.2	8.0	6.9	8.5	6.8	7.8	7.7	7.2
Speed	19.8	19.8	18.0	16.7	18.8	16.9	18.8	16.8	17.6	18.1

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	83.2	50.0	59.2	76.4	73.2	130.4	86.8	104.4	339.2	663.6
Delay	18.1	16.6	20.8	17.6	17.2	16.2	16.3	16.0	18.0	17.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	16.6	20.8	17.6	17.2	16.2	16.3	16.0	18.0	17.4
Mean Queue	0.4	0.2	0.3	0.4	0.3	0.6	0.4	0.4	0.4	0.4
Max Queue	3.4	2.8	2.6	2.6	3.2	4.0	2.9	3.6	3.1	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.2	0.3	0.4	0.3	0.6	0.4	0.4	0.4	0.4
Total Max Queue	3.4	2.8	2.6	2.6	3.2	4.0	2.9	3.6	3.1	3.1
Speed	11.8	13.8	11.4	13.2	13.9	13.8	13.3	14.1	13.1	13.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name:	West Terrace (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	391.2	402.0	416.4	421.2	412.8	416.0	389.2	386.4	1,666.4	3,235.2
Delay	53.9	60.7	57.1	55.6	47.7	58.9	47.0	44.7	54.8	53.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	60.7	57.1	55.6	47.7	58.9	47.0	44.7	54.8	53.4
Mean Queue	5.6	6.1	6.1	5.7	4.8	6.3	4.3	4.4	5.7	5.4
Max Queue	17.1	17.6	17.7	17.5	17.4	18.5	15.5	16.4	17.8	17.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.6	6.1	6.1	5.7	4.8	6.3	4.3	4.4	5.7	5.4
Total Max Queue	17.1	17.6	17.7	17.5	17.4	18.5	15.5	16.4	17.8	17.3
Speed	21.8	21.5	22.5	22.7	22.7	22.6	21.7	22.7	22.6	22.3

Arm Reference:	B
Name:	Cromwell Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	257.6	255.2	226.0	236.0	220.4	230.0	206.4	218.0	912.4	1,849.6
Delay	25.0	25.0	23.6	24.6	22.7	23.3	23.3	24.1	23.6	23.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	25.0	25.1	23.7	24.7	22.8	23.4	23.4	24.2	23.7	24.0
Mean Queue	1.6	1.6	1.3	1.4	1.2	1.3	1.2	1.3	1.3	1.4
Max Queue	7.9	7.4	6.9	6.9	5.7	7.0	6.4	6.4	6.6	6.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.2	1.0	1.1	0.9	1.2	1.1	0.9	1.1	1.1
Total Mean Queue	1.6	1.6	1.3	1.4	1.2	1.3	1.2	1.3	1.3	1.4
Total Max Queue	9.0	8.6	7.9	8.0	6.6	8.2	7.5	7.3	7.7	7.9
Speed	17.4	17.7	19.0	17.6	19.1	18.7	18.2	18.1	18.6	18.3

Arm Reference:	C
Name:	West Terrace (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	87.6	106.8	63.6	80.8	83.6	79.2	61.2	58.4	307.2	621.2
Delay	16.9	20.1	19.6	17.3	19.2	17.7	15.8	16.9	18.4	18.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	20.1	19.6	17.3	19.2	17.7	15.8	16.9	18.4	18.0
Mean Queue	0.4	0.6	0.3	0.4	0.4	0.4	0.2	0.3	0.4	0.4
Max Queue	4.1	3.4	2.8	2.5	3.0	2.8	2.4	2.7	2.8	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.6	0.3	0.4	0.4	0.4	0.2	0.3	0.4	0.4
Total Max Queue	4.1	3.4	2.8	2.5	3.0	2.8	2.4	2.7	2.8	2.9
Speed	13.9	11.8	12.8	14.1	12.7	13.6	14.7	13.6	13.3	13.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	562.8	575.2	580.0	623.2	600.0	608.4	626.4	550.4	2,411.6	4,726.4
Delay	40.1	49.1	47.8	51.1	46.9	52.0	57.2	40.0	49.5	48.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	49.1	47.8	51.1	46.9	52.0	57.2	40.0	49.5	48.2
Mean Queue	5.8	7.0	7.1	7.8	6.9	8.1	8.8	5.1	7.5	7.1
Max Queue	18.8	19.5	19.3	19.3	19.1	19.2	19.2	18.0	19.2	19.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.8	7.0	7.1	7.8	6.9	8.1	8.8	5.1	7.5	7.1
Total Max Queue	18.8	19.5	19.3	19.3	19.1	19.2	19.2	18.0	19.2	19.1
Speed	28.3	27.9	28.5	29.2	29.3	29.6	28.6	27.8	29.1	28.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	198.0	230.8	216.4	218.0	214.8	198.0	197.6	207.6	847.2	1,681.2
Delay	27.5	29.9	27.2	28.9	28.6	29.8	30.8	28.7	28.6	28.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1
Total Delay	27.6	30.0	27.3	29.0	28.7	29.8	30.8	28.7	28.7	29.0
Mean Queue	1.4	1.7	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Max Queue	6.6	7.6	6.3	7.2	7.5	6.6	6.5	6.6	6.9	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.1	1.1	1.1	1.0	0.7	0.8	1.1	1.0
Total Mean Queue	1.4	1.7	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5
Total Max Queue	7.6	8.7	7.4	8.3	8.6	7.6	7.2	7.4	8.0	7.9
Speed	16.9	15.2	16.2	15.1	16.7	15.7	15.0	16.4	15.9	15.9

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	156.4	139.6	129.6	113.6	113.2	131.2	107.2	137.2	487.6	1,028.0
Delay	15.3	17.4	16.2	16.7	17.0	16.1	16.8	18.3	16.5	16.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	17.4	16.2	16.7	17.0	16.1	16.8	18.3	16.5	16.7
Mean Queue	0.6	0.7	0.5	0.5	0.5	0.6	0.4	0.7	0.5	0.6
Max Queue	4.7	4.2	4.1	3.4	3.8	4.3	3.6	3.8	3.9	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.7	0.5	0.5	0.5	0.6	0.4	0.7	0.5	0.6
Total Max Queue	4.7	4.2	4.1	3.4	3.8	4.3	3.6	3.8	3.9	4.0
Speed	16.2	15.4	14.9	14.5	14.4	15.9	15.3	15.4	14.9	15.2

2025 Do Minimum

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	241.6	291.6	329.2	332.8	351.2	369.6	341.6	347.2	1,382.8	2,604.8
Delay	22.8	27.4	31.0	33.6	32.3	41.2	35.9	38.0	34.5	33.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	27.4	31.0	33.6	32.3	41.2	35.9	38.0	34.5	33.0
Mean Queue	1.3	2.1	2.5	3.0	2.7	4.0	3.1	3.5	3.1	2.8
Max Queue	9.3	13.6	13.3	14.7	14.0	17.1	15.8	16.4	14.8	14.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	2.1	2.5	3.0	2.7	4.0	3.1	3.5	3.1	2.8
Total Max Queue	9.3	13.6	13.3	14.7	14.0	17.1	15.8	16.4	14.8	14.3
Speed	19.1	20.9	22.2	22.1	22.5	22.2	22.6	21.5	22.2	21.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	167.6	209.6	243.6	224.8	236.8	258.4	238.8	220.4	963.6	1,800.0
Delay	22.0	24.2	23.6	23.1	23.3	26.6	25.2	25.8	24.1	24.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay	22.1	24.3	23.7	23.2	23.3	26.6	25.3	25.9	24.2	24.3
Mean Queue	0.9	1.2	1.4	1.3	1.3	1.7	1.5	1.4	1.4	1.4
Max Queue	5.3	7.0	6.6	5.9	6.7	8.0	6.5	6.2	6.8	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	1.2	1.0	1.2	1.0	1.1	1.0	1.0	1.1	1.0
Total Mean Queue	0.9	1.2	1.4	1.3	1.3	1.7	1.5	1.4	1.4	1.4
Total Max Queue	6.1	8.2	7.6	7.1	7.7	9.1	7.5	7.2	7.9	7.6
Speed	19.6	17.0	18.4	18.9	18.3	16.4	16.7	17.2	18.0	17.8

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	93.2	77.6	78.0	98.4	83.2	129.2	77.2	123.6	388.8	760.4
Delay	18.3	17.4	18.4	17.6	19.1	17.9	18.5	17.8	18.2	18.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	17.4	18.4	17.6	19.1	17.9	18.5	17.8	18.2	18.1
Mean Queue	0.5	0.4	0.4	0.5	0.4	0.6	0.4	0.6	0.5	0.5
Max Queue	3.7	2.8	2.7	3.0	3.6	4.1	3.2	3.5	3.4	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.4	0.4	0.5	0.4	0.6	0.4	0.6	0.5	0.5
Total Max Queue	3.7	2.8	2.7	3.0	3.6	4.1	3.2	3.5	3.4	3.3
Speed	12.0	13.2	13.7	13.2	12.1	12.6	13.1	12.9	12.9	12.8

2025 Do Minimum

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	413.2	413.2	428.0	410.4	434.8	414.4	423.6	424.0	1,687.6	3,361.6
Delay	54.7	63.0	76.3	67.3	64.2	77.6	72.4	67.7	71.3	68.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	63.0	76.3	67.3	64.2	77.6	72.4	67.7	71.3	68.3
Mean Queue	5.8	6.9	8.9	7.3	7.2	8.4	8.1	7.0	7.9	7.5
Max Queue	17.6	17.7	19.0	18.6	18.7	18.6	18.9	18.4	18.7	18.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.8	6.9	8.9	7.3	7.2	8.4	8.1	7.0	7.9	7.5
Total Max Queue	17.6	17.7	19.0	18.6	18.7	18.6	18.9	18.4	18.7	18.5
Speed	22.5	22.6	23.4	22.2	23.1	22.1	23.0	22.4	22.7	22.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	256.8	250.4	257.6	269.2	247.2	251.6	233.2	251.6	1,025.6	2,017.6
Delay	24.5	23.4	25.5	26.9	23.5	25.1	23.1	24.3	25.3	24.6
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	24.5	23.5	25.6	27.0	23.6	25.2	23.1	24.4	25.3	24.7
Mean Queue	1.5	1.5	1.6	1.8	1.4	1.6	1.3	1.5	1.6	1.5
Max Queue	8.1	6.7	8.0	8.5	7.0	7.5	6.4	7.1	7.8	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.3	1.0	1.2	1.2	0.9	1.4	1.2	1.1
Total Mean Queue	1.5	1.5	1.6	1.8	1.4	1.6	1.3	1.5	1.6	1.5
Total Max Queue	9.1	7.8	9.3	9.5	8.2	8.7	7.3	8.5	8.9	8.6
Speed	17.6	19.0	17.3	16.5	18.3	18.3	18.5	17.9	17.6	17.9

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	80.0	86.0	59.2	73.2	64.8	80.4	48.8	68.0	277.6	560.4
Delay	16.8	17.9	21.9	19.3	19.0	16.4	17.7	19.3	19.2	18.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.8	17.9	21.9	19.3	19.0	16.4	17.7	19.3	19.2	18.6
Mean Queue	0.4	0.4	0.4	0.4	0.3	0.4	0.2	0.3	0.4	0.3
Max Queue	3.9	3.5	2.8	2.7	2.8	2.8	2.2	2.9	2.8	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.4	0.4	0.3	0.4	0.2	0.3	0.4	0.3
Total Max Queue	3.9	3.5	2.8	2.7	2.8	2.8	2.2	2.9	2.8	2.9
Speed	14.8	14.1	11.7	12.5	12.9	14.8	14.7	12.4	13.0	13.4

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-07 **J-07: West Terrace / Cromwell Street**

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	627.2	601.2	610.8	628.0	587.6	662.4	642.8	559.6	2,488.8	4,919.6
Delay	28.3	29.0	32.4	25.2	28.3	30.3	26.6	24.3	29.0	28.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	29.0	32.4	25.2	28.3	30.3	26.6	24.3	29.0	28.2
Mean Queue	4.3	4.1	5.0	3.6	4.0	4.9	4.1	3.1	4.4	4.2
Max Queue	18.8	17.6	18.4	17.8	18.3	18.1	18.5	16.5	18.2	18.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.3	4.1	5.0	3.6	4.0	4.9	4.1	3.1	4.4	4.2
Total Max Queue	18.8	17.6	18.4	17.8	18.3	18.1	18.5	16.5	18.2	18.0
Speed	31.1	30.4	30.8	31.1	30.6	31.6	31.7	30.4	31.0	31.0

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	192.0	200.8	204.8	189.6	197.6	178.0	180.8	199.2	770.0	1,542.8
Delay	35.9	33.6	35.9	35.8	35.4	35.8	35.1	34.0	35.7	35.2
Delay Virtual Queue	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Total Delay	36.0	33.7	36.0	35.8	35.5	35.8	35.1	34.1	35.8	35.3
Mean Queue	1.8	1.7	1.8	1.7	1.7	1.7	1.6	1.7	1.8	1.7
Max Queue	7.9	7.5	7.7	6.9	7.9	7.3	6.7	7.8	7.5	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.0	0.9	1.0	0.9	0.8	1.0	1.0	1.0
Total Mean Queue	1.8	1.7	1.8	1.7	1.7	1.7	1.6	1.7	1.8	1.7
Total Max Queue	8.9	8.6	8.7	7.8	8.9	8.2	7.5	8.8	8.4	8.4
Speed	14.0	13.9	14.9	14.4	14.7	14.3	14.4	14.6	14.6	14.4

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	183.2	174.4	165.6	171.6	141.6	171.6	138.8	165.6	650.4	1,312.4
Delay	14.5	15.1	14.8	14.9	16.9	15.2	16.4	16.5	15.4	15.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	15.1	14.8	14.9	16.9	15.2	16.4	16.5	15.4	15.5
Mean Queue	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7
Max Queue	4.9	4.5	4.6	4.2	4.4	4.3	4.2	4.4	4.4	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.7	0.7	0.7
Total Max Queue	4.9	4.5	4.6	4.2	4.4	4.3	4.2	4.4	4.4	4.4
Speed	17.4	17.4	17.5	17.3	16.6	17.2	16.9	16.2	17.1	17.1

2030 Do Minimum

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	246.8	284.0	328.4	334.4	316.8	328.4	329.2	328.4	1,308.0	2,496.4
Delay	24.2	27.6	29.2	36.3	33.2	34.5	35.2	42.2	33.3	32.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	27.6	29.2	36.3	33.2	34.5	35.2	42.2	33.3	32.8
Mean Queue	1.4	1.9	2.4	3.1	2.6	3.2	2.8	3.7	2.8	2.7
Max Queue	10.5	12.1	14.3	15.0	13.8	14.4	14.0	16.3	14.4	13.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.9	2.4	3.1	2.6	3.2	2.8	3.7	2.8	2.7
Total Max Queue	10.5	12.1	14.3	15.0	13.8	14.4	14.0	16.3	14.4	13.9
Speed	19.0	20.9	21.8	22.3	21.0	22.5	21.1	20.7	21.9	21.2

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	171.6	182.4	221.6	220.8	236.4	265.2	226.4	221.2	944.0	1,745.6
Delay	20.3	22.3	23.8	24.5	24.7	25.0	25.3	23.9	24.5	23.8
Delay Virtual Queue	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	20.4	22.3	23.8	24.6	24.8	25.0	25.3	24.0	24.6	23.9
Mean Queue	0.9	1.0	1.3	1.3	1.4	1.7	1.4	1.3	1.4	1.3
Max Queue	5.8	5.4	6.0	7.3	7.0	7.4	6.4	6.9	6.9	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	0.9	1.1	1.0	1.1	1.1	1.1	1.3	1.1	1.1
Total Mean Queue	0.9	1.0	1.3	1.3	1.4	1.7	1.4	1.3	1.4	1.3
Total Max Queue	6.7	6.3	7.1	8.3	8.1	8.5	7.5	8.2	8.0	7.6
Speed	19.9	18.7	17.7	17.2	17.6	17.8	17.0	18.1	17.6	18.0

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	96.8	83.2	91.2	103.6	110.4	146.0	93.6	127.2	451.2	852.0
Delay	15.5	17.1	18.4	17.6	20.1	17.4	17.9	17.0	18.4	17.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	17.1	18.4	17.6	20.1	17.4	17.9	17.0	18.4	17.7
Mean Queue	0.4	0.4	0.4	0.5	0.6	0.7	0.4	0.6	0.5	0.5
Max Queue	3.6	3.2	3.1	3.4	3.9	4.1	3.0	4.1	3.6	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.4	0.5	0.6	0.7	0.4	0.6	0.5	0.5
Total Max Queue	3.6	3.2	3.1	3.4	3.9	4.1	3.0	4.1	3.6	3.6
Speed	13.5	12.7	12.6	13.2	11.2	12.8	13.0	14.0	12.5	12.8

2030 Do Minimum

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	422.0	420.4	438.0	436.8	445.2	424.0	436.8	440.0	1,744.0	3,463.2
Delay	63.4	95.8	88.2	86.7	77.7	86.3	83.6	79.5	84.7	82.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	95.8	88.2	86.7	77.7	86.3	83.6	79.5	84.7	82.9
Mean Queue	7.1	11.1	10.4	10.0	9.3	9.6	9.5	9.1	9.8	9.5
Max Queue	18.9	19.9	19.2	19.3	18.9	18.8	19.5	19.3	19.1	19.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.1	11.1	10.4	10.0	9.3	9.6	9.5	9.1	9.8	9.5
Total Max Queue	18.9	19.9	19.2	19.3	18.9	18.8	19.5	19.3	19.1	19.2
Speed	22.6	22.2	22.8	23.0	23.3	22.6	22.8	22.6	22.9	22.8

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	256.8	278.8	269.2	265.6	252.8	266.8	253.2	236.0	1,054.4	2,079.2
Delay	22.7	24.2	24.0	24.0	25.3	30.1	24.3	25.4	25.9	25.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Delay	22.8	24.3	24.1	24.1	25.4	30.3	24.4	25.5	26.0	25.2
Mean Queue	1.4	1.6	1.6	1.6	1.6	2.0	1.5	1.5	1.7	1.6
Max Queue	7.9	7.2	8.2	7.2	7.0	8.5	7.7	6.6	7.7	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.1	1.1	1.1	1.0	1.3	1.1	1.3	1.1	1.1
Total Mean Queue	1.4	1.6	1.6	1.6	1.6	2.0	1.5	1.5	1.7	1.6
Total Max Queue	9.1	8.3	9.3	8.3	8.0	9.8	8.8	7.9	8.9	8.7
Speed	18.7	18.8	17.7	18.7	18.0	16.6	18.5	17.4	17.7	18.0

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	80.4	78.0	56.4	77.2	73.6	82.4	57.2	59.6	289.6	564.8
Delay	20.2	20.9	21.5	22.6	18.9	30.1	16.5	17.2	23.3	21.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	20.9	21.5	22.6	18.9	30.1	16.5	17.2	23.3	21.3
Mean Queue	0.4	0.4	0.3	0.5	0.4	0.7	0.2	0.3	0.5	0.4
Max Queue	3.7	3.5	2.5	2.6	3.0	3.5	2.0	2.4	2.9	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.3	0.5	0.4	0.7	0.2	0.3	0.5	0.4
Total Max Queue	3.7	3.5	2.5	2.6	3.0	3.5	2.0	2.4	2.9	2.9
Speed	11.8	13.5	12.8	12.4	12.7	9.8	16.8	14.7	11.9	12.9

2030 Do Minimum

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	639.6	583.2	647.6	621.6	618.8	693.2	677.6	568.0	2,581.2	5,049.6
Delay	28.5	29.2	28.4	31.2	26.7	25.3	28.1	26.5	27.9	28.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	29.2	28.4	31.2	26.7	25.3	28.1	26.5	27.9	28.0
Mean Queue	4.4	4.1	4.3	4.6	3.9	4.3	4.5	3.4	4.3	4.2
Max Queue	18.7	17.5	18.3	17.8	17.7	18.6	18.3	16.9	18.1	18.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.4	4.1	4.3	4.6	3.9	4.3	4.5	3.4	4.3	4.2
Total Max Queue	18.7	17.5	18.3	17.8	17.7	18.6	18.3	16.9	18.1	18.0
Speed	31.0	30.5	31.5	30.8	31.1	31.9	31.9	29.9	31.3	31.1

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	184.0	214.8	206.8	206.4	198.0	170.8	179.6	198.0	782.0	1,558.4
Delay	34.8	37.4	38.0	35.4	33.6	34.9	35.9	33.4	35.5	35.4
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Total Delay	34.8	37.5	38.0	35.6	33.7	35.0	36.0	33.4	35.6	35.5
Mean Queue	1.7	2.1	2.0	1.8	1.7	1.5	1.6	1.7	1.8	1.8
Max Queue	7.6	8.3	7.5	8.1	6.7	6.6	7.4	7.1	7.2	7.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.1	1.0	1.1	0.9	0.9	1.0	0.9	1.0	1.0
Total Mean Queue	1.7	2.1	2.0	1.9	1.7	1.5	1.6	1.7	1.8	1.8
Total Max Queue	8.8	9.4	8.5	9.2	7.6	7.5	8.4	8.0	8.2	8.4
Speed	14.8	13.8	13.4	13.7	14.3	14.1	13.4	14.4	13.9	14.0

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	186.0	172.0	177.2	181.2	145.2	149.6	136.0	181.2	653.2	1,328.4
Delay	14.2	15.5	16.3	16.0	15.3	16.3	17.1	14.9	16.0	15.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	15.5	16.3	16.0	15.3	16.3	17.1	14.9	16.0	15.7
Mean Queue	0.7	0.7	0.8	0.8	0.6	0.7	0.6	0.7	0.7	0.7
Max Queue	5.0	4.8	4.7	4.6	3.9	3.9	4.2	4.3	4.3	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.8	0.8	0.6	0.7	0.6	0.7	0.7	0.7
Total Max Queue	5.0	4.8	4.7	4.6	3.9	3.9	4.2	4.3	4.3	4.4
Speed	17.7	16.9	17.3	16.5	17.1	17.4	15.9	17.7	17.1	17.1

2025 Do Something

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	256.4	309.6	346.8	346.4	343.2	369.2	336.0	353.2	1,405.6	2,660.8
Delay	22.7	27.7	29.2	36.0	38.1	35.3	29.2	39.0	34.6	32.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	27.7	29.2	36.0	38.1	35.3	29.2	39.0	34.6	32.4
Mean Queue	1.3	2.2	2.5	3.1	3.3	3.3	2.4	3.6	3.0	2.8
Max Queue	9.5	14.0	13.9	15.7	15.3	15.7	13.6	16.2	15.2	14.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	2.2	2.5	3.1	3.3	3.3	2.4	3.6	3.0	2.8
Total Max Queue	9.5	14.0	13.9	15.7	15.3	15.7	13.6	16.2	15.2	14.3
Speed	17.9	21.8	22.2	21.6	22.6	23.0	21.8	22.1	22.4	21.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	164.0	194.0	231.2	240.4	233.2	256.4	229.2	205.2	961.2	1,753.6
Delay	21.4	22.5	22.8	24.8	23.5	24.4	25.1	25.4	23.9	23.8
Delay Virtual Queue	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Total Delay	21.5	22.5	22.9	24.9	23.5	24.4	25.2	25.5	23.9	23.8
Mean Queue	0.9	1.1	1.3	1.4	1.4	1.5	1.4	1.3	1.4	1.3
Max Queue	5.3	5.6	6.1	7.0	6.2	7.4	6.3	6.3	6.7	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.7	1.0	1.1	1.1	1.0	1.0	1.0	1.1	1.0
Total Mean Queue	0.9	1.1	1.3	1.4	1.4	1.5	1.4	1.3	1.4	1.3
Total Max Queue	6.0	6.3	7.1	8.1	7.3	8.4	7.3	7.3	7.7	7.3
Speed	20.4	18.8	18.5	17.2	18.8	17.2	16.5	17.9	17.9	18.1

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	104.8	71.6	85.2	95.2	88.4	132.0	80.4	131.2	400.8	788.8
Delay	18.7	17.2	17.2	18.1	18.6	16.7	17.5	18.8	17.7	17.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	17.2	17.2	18.1	18.6	16.7	17.5	18.8	17.7	17.8
Mean Queue	0.5	0.3	0.4	0.5	0.4	0.6	0.4	0.6	0.5	0.5
Max Queue	3.8	3.2	3.1	3.1	2.9	4.1	3.2	4.1	3.3	3.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.3	0.4	0.5	0.4	0.6	0.4	0.6	0.5	0.5
Total Max Queue	3.8	3.2	3.1	3.1	2.9	4.1	3.2	4.1	3.3	3.4
Speed	10.2	13.8	13.4	12.6	12.2	12.9	12.5	12.1	12.8	12.5

2025 Do Something

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	418.4	430.4	423.2	423.6	444.0	432.4	438.8	450.0	1,723.2	3,460.8
Delay	60.8	79.0	82.7	85.0	82.7	88.8	86.0	83.3	84.8	81.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	79.0	82.7	85.0	82.7	88.8	86.0	83.3	84.8	81.4
Mean Queue	6.8	9.0	9.5	10.0	9.8	10.2	10.3	10.0	9.9	9.5
Max Queue	18.8	18.8	18.7	19.6	19.3	19.3	19.4	19.0	19.2	19.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.8	9.0	9.5	10.0	9.8	10.2	10.3	10.0	9.9	9.5
Total Max Queue	18.8	18.8	18.7	19.6	19.3	19.3	19.4	19.0	19.2	19.1
Speed	22.9	22.3	22.7	22.7	23.5	22.8	23.4	23.1	22.9	22.9

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	254.0	262.4	272.0	260.4	246.0	240.8	241.6	219.6	1,019.2	1,996.8
Delay	22.8	26.1	25.3	26.0	23.8	26.2	24.2	23.7	25.4	24.8
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	22.8	26.2	25.5	26.1	23.9	26.3	24.3	23.8	25.4	24.9
Mean Queue	1.5	1.7	1.7	1.7	1.5	1.5	1.4	1.3	1.6	1.5
Max Queue	7.4	7.4	8.4	7.5	7.2	6.5	6.8	6.6	7.4	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.2	1.3	1.0	1.0	1.2	0.9	1.0	1.1	1.1
Total Mean Queue	1.5	1.7	1.7	1.7	1.5	1.5	1.4	1.3	1.6	1.5
Total Max Queue	8.4	8.6	9.7	8.5	8.2	7.7	7.7	7.6	8.5	8.3
Speed	19.3	17.3	17.7	17.5	18.3	17.5	18.4	18.6	17.7	18.0

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	90.0	69.2	51.2	79.6	68.0	89.6	60.8	71.2	288.4	579.6
Delay	17.7	19.9	22.2	20.5	18.3	17.9	16.2	15.1	19.7	18.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	19.9	22.2	20.5	18.3	17.9	16.2	15.1	19.7	18.6
Mean Queue	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.4
Max Queue	3.7	2.8	2.8	3.2	2.6	3.1	2.3	2.5	2.9	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.3	0.4	0.3	0.4	0.3	0.3	0.4	0.4
Total Max Queue	3.7	2.8	2.8	3.2	2.6	3.1	2.3	2.5	2.9	2.9
Speed	13.0	12.7	12.4	13.6	14.7	13.8	14.6	16.1	13.6	13.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	633.2	595.6	644.0	629.2	633.6	687.6	662.4	587.2	2,594.4	5,072.8
Delay	27.8	30.9	30.0	30.4	29.6	26.7	26.5	27.9	29.2	28.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	30.9	30.0	30.4	29.6	26.7	26.5	27.9	29.2	28.8
Mean Queue	4.3	4.5	4.6	4.7	4.5	4.5	4.1	3.8	4.6	4.4
Max Queue	18.2	17.8	18.8	18.1	18.6	18.8	18.5	18.3	18.6	18.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.3	4.5	4.6	4.7	4.5	4.5	4.1	3.8	4.6	4.4
Total Max Queue	18.2	17.8	18.8	18.1	18.6	18.8	18.5	18.3	18.6	18.4
Speed	31.0	30.6	31.5	31.3	31.2	32.1	32.2	30.6	31.5	31.3

Arm Reference:	B
Name	Cromwell Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	206.8	198.8	191.2	190.8	207.2	181.6	182.0	206.4	770.8	1,564.8
Delay	34.6	36.4	34.8	38.5	36.0	35.4	35.9	33.7	36.2	35.7
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	34.7	36.5	34.8	38.6	36.1	35.5	35.9	33.8	36.2	35.8
Mean Queue	1.8	1.8	1.7	1.8	1.9	1.7	1.7	1.7	1.8	1.8
Max Queue	8.2	8.2	6.9	7.9	7.9	7.2	7.2	7.5	7.5	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.0	0.9	0.9	1.1	0.9	0.9	1.0	1.0	1.0
Total Mean Queue	1.8	1.8	1.7	1.8	1.9	1.7	1.7	1.7	1.8	1.8
Total Max Queue	9.2	9.2	7.8	8.8	9.0	8.1	8.1	8.5	8.4	8.6
Speed	14.4	15.1	15.8	13.7	14.8	14.7	13.2	14.8	14.7	14.6

Arm Reference:	C
Name	West Terrace (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	194.0	180.4	158.4	164.0	159.6	164.8	154.8	158.8	646.8	1,334.8
Delay	13.4	16.5	13.9	15.8	14.3	15.5	16.0	15.1	14.9	15.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	16.5	13.9	15.8	14.3	15.5	16.0	15.1	14.9	15.0
Mean Queue	0.7	0.8	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.7
Max Queue	4.6	4.6	4.4	4.5	4.3	4.6	4.2	4.1	4.5	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.8	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.7
Total Max Queue	4.6	4.6	4.4	4.5	4.3	4.6	4.2	4.1	4.5	4.4
Speed	19.0	16.3	18.3	17.2	18.4	17.5	16.6	16.9	17.9	17.6

2030 Do Something

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	251.2	306.4	375.2	359.6	379.2	378.0	367.2	364.0	1,492.0	2,780.8
Delay	22.3	29.6	32.4	43.2	35.5	45.3	46.9	44.9	39.1	37.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	29.6	32.4	43.2	35.5	45.3	46.9	44.9	39.1	37.7
Mean Queue	1.3	2.4	2.8	4.1	3.3	4.6	4.4	4.3	3.7	3.5
Max Queue	10.2	13.9	14.7	16.6	15.4	17.0	16.7	16.5	15.9	15.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	2.4	2.8	4.1	3.3	4.6	4.4	4.3	3.7	3.5
Total Max Queue	10.2	13.9	14.7	16.6	15.4	17.0	16.7	16.5	15.9	15.2
Speed	19.2	21.3	23.3	22.4	23.4	22.6	22.2	21.1	22.9	22.1

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	164.8	199.2	221.6	234.4	260.4	262.8	241.6	213.2	979.2	1,798.0
Delay	23.0	22.4	24.7	24.3	26.6	26.2	24.1	26.1	25.4	24.8
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	23.1	22.4	24.7	24.4	26.7	26.3	24.2	26.1	25.5	24.8
Mean Queue	0.9	1.1	1.4	1.4	1.7	1.7	1.4	1.4	1.5	1.4
Max Queue	5.7	5.7	6.4	6.5	8.2	7.7	6.8	6.3	7.2	6.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.9	1.2	1.1	1.1	1.1	1.1	1.0	1.1	1.0
Total Mean Queue	0.9	1.1	1.4	1.4	1.7	1.7	1.4	1.4	1.5	1.4
Total Max Queue	6.4	6.6	7.6	7.6	9.3	8.8	7.9	7.3	8.3	7.8
Speed	18.3	18.8	17.6	17.2	17.1	16.2	17.5	17.0	17.0	17.4

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	94.0	81.6	112.8	118.0	118.4	142.8	107.2	129.6	492.0	904.4
Delay	16.2	17.3	17.6	17.9	17.9	17.4	18.3	16.4	17.7	17.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	17.3	17.6	17.9	17.9	17.4	18.3	16.4	17.7	17.4
Mean Queue	0.4	0.4	0.5	0.6	0.6	0.7	0.5	0.6	0.6	0.5
Max Queue	4.0	2.8	3.6	3.2	3.9	3.9	3.8	3.7	3.7	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.4	0.5	0.6	0.6	0.7	0.5	0.6	0.6	0.5
Total Max Queue	4.0	2.8	3.6	3.2	3.9	3.9	3.8	3.7	3.7	3.6
Speed	13.7	14.2	13.5	12.8	13.3	14.0	13.1	13.7	13.4	13.5

2030 Do Something

J-07 J-07: West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	425.6	434.8	442.0	440.8	453.2	452.8	460.4	471.6	1,788.8	3,581.2
Delay	96.8	101.3	96.9	97.0	98.7	98.9	94.5	97.3	97.9	97.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.8	101.3	96.9	97.0	98.7	98.9	94.5	97.3	97.9	97.7
Mean Queue	11.3	11.7	11.5	11.4	11.8	11.7	11.5	11.6	11.6	11.6
Max Queue	19.4	19.7	19.8	19.4	20.0	19.8	19.4	19.4	19.8	19.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.3	11.7	11.5	11.4	11.8	11.7	11.5	11.6	11.6	11.6
Total Max Queue	19.4	19.7	19.8	19.4	20.0	19.8	19.4	19.4	19.8	19.6
Speed	23.2	22.9	22.9	23.3	23.2	23.3	23.9	23.7	23.2	23.3

Arm Reference:	B
Name	Cromwell Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	298.4	297.2	268.4	279.2	303.2	273.6	282.8	258.4	1,124.4	2,261.2
Delay	26.3	25.7	25.7	25.4	26.5	24.5	24.6	25.1	25.5	25.5
Delay Virtual Queue	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Total Delay	26.4	25.8	25.9	25.5	26.6	24.6	24.7	25.1	25.7	25.6
Mean Queue	1.9	1.9	1.7	1.7	2.0	1.6	1.7	1.6	1.8	1.8
Max Queue	9.5	9.2	8.1	8.2	9.4	7.3	7.9	8.9	8.3	8.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.5	1.2	1.4	1.3	1.2	1.4	1.0	1.1	1.3	1.3
Total Mean Queue	2.0	1.9	1.7	1.7	2.0	1.6	1.7	1.6	1.8	1.8
Total Max Queue	11.0	10.4	9.5	9.5	10.6	8.7	8.9	10.0	9.6	9.8
Speed	17.4	17.1	16.9	17.7	18.0	17.6	18.1	17.6	17.6	17.6

Arm Reference:	C
Name	West Terrace (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	85.2	98.0	63.6	70.4	64.8	78.8	58.0	76.4	277.6	595.2
Delay	23.5	21.5	20.4	21.1	22.0	19.7	17.0	20.2	20.8	20.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	21.5	20.4	21.1	22.0	19.7	17.0	20.2	20.8	20.7
Mean Queue	0.6	0.6	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4
Max Queue	3.9	3.8	3.3	3.3	2.8	2.9	2.5	2.9	3.1	3.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.6	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4
Total Max Queue	3.9	3.8	3.3	3.3	2.8	2.9	2.5	2.9	3.1	3.2
Speed	12.4	12.6	12.8	14.1	12.7	13.9	14.9	13.6	13.4	13.4

2030 Do Something

J-07 West Terrace / Cromwell Street

Arm Reference:	A
Name	West Terrace (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	683.2	631.2	684.4	644.4	660.8	688.8	727.2	601.6	2,678.4	5,321.6
Delay	30.5	30.9	31.8	29.0	28.1	30.3	31.8	23.6	29.8	29.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	30.9	31.8	29.0	28.1	30.3	31.8	23.6	29.8	29.5
Mean Queue	5.1	4.6	5.3	4.5	4.4	5.2	5.6	3.3	4.8	4.8
Max Queue	18.7	18.1	18.6	18.3	18.0	18.9	18.8	17.7	18.5	18.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.1	4.6	5.3	4.5	4.4	5.2	5.6	3.3	4.8	4.8
Total Max Queue	18.7	18.1	18.6	18.3	18.0	18.9	18.8	17.7	18.5	18.4
Speed	31.6	30.9	31.9	31.2	31.8	32.4	32.9	30.9	31.8	31.7

Arm Reference:	B
Name	Cromwell Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	200.8	225.6	211.2	196.0	190.8	180.0	183.2	208.4	778.0	1,596.0
Delay	34.0	36.4	37.3	35.9	32.3	38.9	35.7	32.5	36.1	35.5
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	34.1	36.4	37.3	35.9	32.4	39.0	35.8	32.6	36.2	35.5
Mean Queue	1.8	2.1	2.0	1.7	1.5	1.8	1.7	1.7	1.8	1.8
Max Queue	7.8	8.2	8.5	7.5	7.0	7.7	7.3	7.4	7.7	7.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.8	1.1	1.1	1.0	1.0	1.1	1.0	1.1	1.0
Total Mean Queue	1.8	2.1	2.0	1.7	1.5	1.8	1.7	1.7	1.8	1.8
Total Max Queue	8.8	9.0	9.6	8.6	8.0	8.7	8.4	8.4	8.7	8.7
Speed	15.4	13.4	13.6	14.3	15.2	13.4	14.7	14.7	14.1	14.3

Arm Reference:	C
Name	West Terrace (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	190.8	169.2	162.8	168.8	159.6	168.4	140.0	172.8	659.6	1,332.4
Delay	14.1	16.8	17.2	16.1	15.6	14.7	15.0	16.6	15.9	15.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.1	16.8	17.2	16.1	15.6	14.7	15.0	16.6	15.9	15.8
Mean Queue	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.7	0.7	0.7
Max Queue	4.8	4.3	4.4	4.6	4.4	4.4	4.4	4.3	4.5	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.7	0.7	0.7
Total Max Queue	4.8	4.3	4.4	4.6	4.4	4.4	4.4	4.3	4.5	4.5
Speed	18.6	16.1	15.7	16.8	17.6	17.1	18.1	16.7	16.8	17.0

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	85.6	102.8	116.0	162.4	160.4	161.6	164.8	136.0	600.4	1,089.6
Delay	30.2	39.4	36.9	28.6	38.7	41.3	32.8	29.8	36.4	34.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	39.4	36.9	28.6	38.7	41.3	32.8	29.8	36.4	34.9
Mean Queue	0.2	0.4	0.5	0.3	0.5	0.6	0.5	0.4	0.5	0.4
Max Queue	2.1	2.3	2.4	2.7	2.8	2.9	2.6	2.2	2.7	2.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.4	0.5	0.3	0.5	0.6	0.5	0.4	0.5	0.4
Total Max Queue	2.1	2.3	2.4	2.7	2.8	2.9	2.6	2.2	2.7	2.5
Speed	44.9	41.1	42.6	41.6	38.8	38.1	43.4	40.9	40.3	41.3

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	309.2	318.8	384.8	399.2	392.0	325.2	250.8	218.8	1,501.2	2,598.8
Delay	15.0	15.8	13.9	14.9	15.3	17.0	16.4	15.1	15.3	15.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	15.8	13.9	14.9	15.3	17.0	16.4	15.1	15.3	15.4
Mean Queue	0.6	0.6	0.7	0.7	0.8	0.7	0.5	0.4	0.7	0.6
Max Queue	3.6	3.0	3.3	3.5	3.8	3.2	3.2	2.2	3.5	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.6	0.7	0.7	0.8	0.7	0.5	0.4	0.7	0.6
Total Max Queue	3.6	3.0	3.3	3.5	3.8	3.2	3.2	2.2	3.5	3.3
Speed	29.9	28.8	30.8	29.5	29.5	28.9	28.1	30.3	29.7	29.5

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	188.4	225.6	176.0	251.6	280.4	298.8	208.8	222.4	1,006.8	1,852.0
Delay	28.5	29.6	28.3	28.4	30.5	28.1	28.6	26.2	28.8	28.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	29.6	28.3	28.4	30.5	28.1	28.6	26.2	28.8	28.6
Mean Queue	0.7	0.8	0.7	0.9	1.1	1.0	0.8	0.8	0.9	0.9
Max Queue	3.4	3.7	3.0	3.7	4.6	5.0	3.3	3.5	4.1	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.8	0.7	0.9	1.1	1.0	0.8	0.8	0.9	0.9
Total Max Queue	3.4	3.7	3.0	3.7	4.6	5.0	3.3	3.5	4.1	3.8
Speed	16.1	14.8	14.9	15.6	14.6	14.5	15.1	16.2	14.9	15.2

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	240.0	316.8	375.2	365.6	397.6	407.6	392.4	374.8	1,546.0	2,870.0
Delay	40.9	33.6	35.7	35.6	33.7	33.6	35.5	37.1	34.6	35.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.9	33.6	35.7	35.6	33.7	33.6	35.5	37.1	34.6	35.6
Mean Queue	1.2	1.3	1.7	1.6	1.6	1.8	1.5	1.7	1.7	1.6
Max Queue	5.9	5.8	7.1	6.9	7.3	8.0	7.3	6.6	7.3	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.3	1.7	1.6	1.6	1.8	1.5	1.7	1.7	1.6
Total Max Queue	5.9	5.8	7.1	6.9	7.3	8.0	7.3	6.6	7.3	6.9
Speed	31.9	30.9	28.2	28.8	29.5	29.6	30.3	30.4	29.0	29.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	276.8	217.6	276.4	311.2	223.6	295.6	221.6	220.4	1,106.8	2,043.2
Delay	29.1	26.9	29.4	30.3	28.0	30.2	26.7	29.7	29.5	28.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	26.9	29.4	30.3	28.0	30.2	26.7	29.7	29.5	28.9
Mean Queue	0.7	0.6	0.7	0.8	0.5	0.8	0.5	0.6	0.7	0.7
Max Queue	4.2	3.0	3.7	4.0	3.2	3.7	3.2	3.0	3.7	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.7	0.8	0.5	0.8	0.5	0.6	0.7	0.7
Total Max Queue	4.2	3.0	3.7	4.0	3.2	3.7	3.2	3.0	3.7	3.5
Speed	34.9	36.3	35.1	35.0	39.4	35.3	40.0	38.6	36.2	36.8

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	206.8	247.2	256.4	236.8	249.2	212.0	216.0	235.6	954.4	1,860.0
Delay	16.7	14.8	16.9	15.4	17.3	15.9	16.1	14.4	16.4	16.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.7	14.8	16.9	15.4	17.3	15.9	16.1	14.4	16.4	16.0
Mean Queue	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5
Max Queue	2.8	2.5	2.6	2.5	2.9	2.5	2.3	2.5	2.6	2.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.5
Total Max Queue	2.8	2.5	2.6	2.5	2.9	2.5	2.3	2.5	2.6	2.6
Speed	27.0	29.3	26.9	28.8	26.2	27.3	27.2	28.6	27.3	27.6

Arm Reference:	C
Name	Borough Road (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	202.4	223.6	207.2	238.4	241.6	228.4	192.8	217.2	915.6	1,751.6
Delay	29.4	31.1	28.7	32.4	33.5	29.5	31.0	33.7	31.0	31.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	31.1	28.7	32.4	33.5	29.5	31.0	33.7	31.0	31.1
Mean Queue	0.8	0.9	0.7	1.0	1.0	0.9	0.8	0.9	0.9	0.9
Max Queue	3.5	3.9	3.7	3.5	3.9	4.1	3.9	3.7	3.8	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.9	0.7	1.0	1.0	0.9	0.8	0.9	0.9	0.9
Total Max Queue	3.5	3.9	3.7	3.5	3.9	4.1	3.9	3.7	3.8	3.8
Speed	13.2	11.3	11.7	11.3	11.3	11.7	10.7	10.7	11.5	11.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	239.2	223.2	282.4	225.2	236.4	254.0	241.6	258.4	998.0	1,960.4
Delay	34.6	35.4	31.8	33.4	28.9	32.8	31.8	30.1	31.7	32.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	35.4	31.8	33.4	28.9	32.8	31.8	30.1	31.7	32.3
Mean Queue	1.1	1.1	1.1	1.0	0.9	1.1	0.9	1.0	1.0	1.0
Max Queue	5.3	4.7	5.5	4.5	5.0	5.8	5.3	5.2	5.2	5.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.1	1.1	1.0	0.9	1.1	0.9	1.0	1.0	1.0
Total Max Queue	5.3	4.7	5.5	4.5	5.0	5.8	5.3	5.2	5.2	5.2
Speed	30.0	32.2	31.3	32.0	35.9	31.8	33.4	34.8	32.7	32.7

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	468.0	369.2	468.4	422.0	498.0	408.0	398.4	379.6	1,796.4	3,411.6
Delay	21.8	31.9	42.9	25.3	38.1	43.6	25.0	32.2	37.5	33.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	31.9	42.9	25.3	38.1	43.6	25.0	32.2	37.5	33.1
Mean Queue	0.9	1.0	1.7	0.8	1.5	1.5	0.9	1.1	1.4	1.2
Max Queue	6.0	4.6	6.5	5.1	5.9	5.8	5.3	5.0	5.8	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.0	1.7	0.8	1.5	1.5	0.9	1.1	1.4	1.2
Total Max Queue	6.0	4.6	6.5	5.1	5.9	5.8	5.3	5.0	5.8	5.6
Speed	31.7	36.6	22.5	29.4	28.5	26.1	32.9	34.4	26.6	29.9

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	340.4	226.4	255.6	250.0	301.6	218.8	199.6	189.2	1,026.0	1,981.6
Delay	19.3	15.2	16.6	15.8	16.2	15.2	13.2	15.4	16.0	15.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.3	15.2	16.6	15.8	16.2	15.2	13.2	15.4	16.0	15.9
Mean Queue	0.8	0.4	0.5	0.5	0.7	0.4	0.3	0.4	0.5	0.5
Max Queue	4.5	2.6	3.0	2.9	3.6	3.2	2.3	2.2	3.2	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.4	0.5	0.5	0.7	0.4	0.3	0.4	0.5	0.5
Total Max Queue	4.5	2.6	3.0	2.9	3.6	3.2	2.3	2.2	3.2	3.1
Speed	28.3	29.7	28.0	29.4	28.7	30.1	31.7	31.0	29.1	29.6

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	317.6	338.4	326.8	354.4	338.8	345.6	288.8	294.8	1,365.6	2,605.2
Delay	52.6	73.5	91.7	92.1	87.9	74.0	47.2	45.6	86.4	72.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.6	73.5	91.7	92.1	87.9	74.0	47.2	45.6	86.4	72.3
Mean Queue	2.2	3.7	4.4	4.3	4.4	3.2	1.7	1.8	4.1	3.3
Max Queue	6.7	10.3	10.5	9.8	9.6	8.6	5.4	5.2	9.6	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	3.7	4.4	4.3	4.4	3.2	1.7	1.8	4.1	3.3
Total Max Queue	6.7	10.3	10.5	9.8	9.6	8.6	5.4	5.2	9.6	8.4
Speed	8.7	5.1	3.5	3.7	3.8	5.8	8.7	8.6	4.2	5.8

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	271.2	278.4	290.4	264.0	227.6	326.8	278.4	236.8	1,108.8	2,173.6
Delay	38.9	40.6	42.1	37.9	42.1	43.2	39.3	39.2	41.3	40.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	40.6	42.1	37.9	42.1	43.2	39.3	39.2	41.3	40.5
Mean Queue	1.6	1.7	1.6	1.4	1.4	2.2	1.5	1.2	1.6	1.6
Max Queue	6.5	5.3	5.9	5.8	5.4	6.8	5.0	5.2	6.0	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	1.6	1.4	1.4	2.2	1.5	1.2	1.6	1.6
Total Max Queue	6.5	5.3	5.9	5.8	5.4	6.8	5.0	5.2	6.0	5.8
Speed	27.7	25.8	25.6	27.0	25.7	22.6	25.9	29.1	25.2	26.1

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	125.2	145.6	130.8	187.6	198.4	180.8	161.6	152.8	697.6	1,282.8
Delay	28.5	36.4	39.5	28.1	36.8	40.2	30.0	29.1	36.2	33.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	36.4	39.5	28.1	36.8	40.2	30.0	29.1	36.2	33.9
Mean Queue	0.3	0.5	0.5	0.4	0.6	0.7	0.4	0.4	0.6	0.5
Max Queue	2.7	2.9	2.5	3.3	3.1	3.1	3.1	2.7	3.0	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.5	0.5	0.4	0.6	0.7	0.4	0.4	0.6	0.5
Total Max Queue	2.7	2.9	2.5	3.3	3.1	3.1	3.1	2.7	3.0	2.9
Speed	43.3	40.5	46.1	39.4	37.9	38.0	42.8	40.3	40.3	40.9

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	408.4	421.2	466.4	508.8	504.8	468.4	373.2	342.0	1,948.4	3,493.2
Delay	17.1	17.4	18.1	21.1	20.4	27.0	20.2	17.9	21.6	20.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	17.4	18.1	21.1	20.4	27.0	20.2	17.9	21.6	20.1
Mean Queue	0.9	1.0	1.0	1.4	1.3	1.6	1.0	0.7	1.3	1.1
Max Queue	4.1	3.8	4.8	5.6	5.4	5.8	4.4	3.5	5.4	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.0	1.0	1.4	1.3	1.6	1.0	0.7	1.3	1.1
Total Max Queue	4.1	3.8	4.8	5.6	5.4	5.8	4.4	3.5	5.4	4.8
Speed	27.6	27.5	27.3	26.1	26.1	24.6	26.4	29.4	26.0	26.8

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	234.0	291.6	246.0	287.2	293.6	361.6	281.6	256.8	1,188.4	2,252.4
Delay	28.0	28.6	28.1	30.3	34.8	33.4	32.2	28.8	31.6	30.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	28.6	28.1	30.3	34.8	33.4	32.2	28.8	31.6	30.6
Mean Queue	0.8	1.1	0.9	1.1	1.4	1.5	1.2	1.0	1.2	1.1
Max Queue	3.7	4.5	4.4	4.7	5.3	6.0	5.0	4.1	5.1	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	1.1	0.9	1.1	1.4	1.5	1.2	1.0	1.2	1.1
Total Max Queue	3.7	4.5	4.4	4.7	5.3	6.0	5.0	4.1	5.1	4.8
Speed	16.5	15.4	17.8	15.4	11.6	13.3	13.8	15.5	14.5	14.9

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	264.0	348.0	442.0	417.2	480.0	485.2	465.6	376.8	1,824.4	3,278.8
Delay	36.8	34.2	35.3	33.1	35.4	34.7	35.9	37.7	34.6	35.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	34.2	35.3	33.1	35.4	34.7	35.9	37.7	34.6	35.3
Mean Queue	1.1	1.3	1.8	1.6	1.8	2.0	1.6	1.6	1.8	1.6
Max Queue	6.2	6.4	7.6	8.5	7.7	9.0	8.0	6.9	8.2	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.3	1.8	1.6	1.8	2.0	1.6	1.6	1.8	1.6
Total Max Queue	6.2	6.4	7.6	8.5	7.7	9.0	8.0	6.9	8.2	7.6
Speed	32.8	33.0	27.2	29.7	29.0	29.8	30.4	29.0	28.9	30.0

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	474.4	443.2	548.4	520.0	494.4	498.4	452.0	494.8	2,061.2	3,925.6
Delay	33.4	29.7	32.7	35.1	33.6	33.6	34.4	32.9	33.7	33.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.4	29.7	32.7	35.1	33.6	33.6	34.4	32.9	33.7	33.2
Mean Queue	1.4	1.2	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.4
Max Queue	5.6	4.8	5.5	5.6	5.8	5.3	5.3	5.6	5.6	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.2	1.6	1.5	1.5	1.5	1.4	1.4	1.5	1.4
Total Max Queue	5.6	4.8	5.5	5.6	5.8	5.3	5.3	5.6	5.6	5.5
Speed	30.3	32.4	28.4	28.2	29.4	28.8	30.1	30.3	28.7	29.6

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	316.4	336.4	354.4	314.4	329.2	307.2	325.6	313.6	1,305.2	2,597.2
Delay	26.6	27.3	46.4	33.5	23.6	31.9	34.2	24.2	33.8	31.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	27.3	46.4	33.5	23.6	31.9	34.2	24.2	33.8	31.3
Mean Queue	1.3	1.1	2.1	1.4	1.2	1.1	1.4	1.0	1.4	1.3
Max Queue	5.4	4.7	5.7	4.9	4.3	5.1	4.9	3.8	5.0	4.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.1	2.1	1.4	1.2	1.1	1.4	1.0	1.4	1.3
Total Max Queue	5.4	4.7	5.7	4.9	4.3	5.1	4.9	3.8	5.0	4.9
Speed	22.3	22.6	20.5	22.8	23.8	22.4	22.2	23.3	22.4	22.5

Arm Reference:	C
Name	Borough Road (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	269.2	294.4	312.4	283.2	303.6	304.4	292.0	273.6	1,203.6	2,332.8
Delay	32.6	32.7	35.8	36.5	34.9	31.2	34.2	32.4	34.6	33.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	32.7	35.8	36.5	34.9	31.2	34.2	32.4	34.6	33.9
Mean Queue	1.2	1.3	1.4	1.3	1.4	1.2	1.2	1.1	1.3	1.3
Max Queue	4.8	4.7	4.8	4.9	5.1	5.3	5.0	4.6	5.0	4.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.3	1.4	1.3	1.4	1.2	1.2	1.1	1.3	1.3
Total Max Queue	4.8	4.7	4.8	4.9	5.1	5.3	5.0	4.6	5.0	4.9
Speed	11.4	13.5	12.7	9.5	10.4	11.2	10.9	11.3	11.0	11.3

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	316.4	321.2	371.6	299.6	336.4	327.2	336.4	323.6	1,334.8	2,632.4
Delay	31.0	31.8	30.6	29.1	31.2	31.5	30.2	33.0	30.6	31.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	31.8	30.6	29.1	31.2	31.5	30.2	33.0	30.6	31.0
Mean Queue	1.3	1.3	1.3	1.1	1.3	1.3	1.2	1.3	1.3	1.3
Max Queue	6.1	6.0	6.5	5.6	6.2	5.8	5.7	6.3	6.0	6.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.3	1.3	1.1	1.3	1.3	1.2	1.3	1.3	1.3
Total Max Queue	6.1	6.0	6.5	5.6	6.2	5.8	5.7	6.3	6.0	6.0
Speed	31.0	30.7	29.0	33.0	31.7	31.7	32.7	29.7	31.4	31.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	617.6	553.2	638.4	630.4	634.8	627.2	630.4	586.4	2,530.8	4,918.4
Delay	26.2	38.4	43.7	30.2	39.6	41.0	29.9	35.3	38.6	35.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	38.4	43.7	30.2	39.6	41.0	29.9	35.3	38.6	35.9
Mean Queue	1.4	1.8	2.4	1.5	2.1	2.2	1.6	1.8	2.0	1.9
Max Queue	7.2	6.6	8.2	7.0	6.7	7.6	7.7	6.3	7.4	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.8	2.4	1.5	2.1	2.2	1.6	1.8	2.0	1.9
Total Max Queue	7.2	6.6	8.2	7.0	6.7	7.6	7.7	6.3	7.4	7.2
Speed	29.1	30.9	21.5	27.8	29.4	24.2	28.7	30.4	25.7	27.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	425.2	333.2	342.4	332.0	405.2	308.0	283.2	304.4	1,387.6	2,733.6
Delay	33.9	28.0	26.1	26.0	32.8	31.7	26.0	28.7	29.1	29.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	28.0	26.1	26.0	32.8	31.7	26.0	28.7	29.1	29.2
Mean Queue	1.4	1.3	1.0	1.2	1.8	1.2	1.1	1.0	1.3	1.3
Max Queue	6.7	4.7	4.2	4.4	5.9	4.3	4.1	4.0	4.7	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.3	1.0	1.2	1.8	1.2	1.1	1.0	1.3	1.3
Total Max Queue	6.7	4.7	4.2	4.4	5.9	4.3	4.1	4.0	4.7	4.8
Speed	23.6	25.6	25.3	27.0	24.5	24.5	25.1	25.1	25.3	25.1

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	342.0	354.0	324.0	341.6	340.8	339.2	308.4	305.2	1,345.6	2,655.2
Delay	85.6	91.4	81.7	86.4	104.5	98.1	69.4	54.9	92.7	84.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.6	91.4	81.7	86.4	104.5	98.1	69.4	54.9	92.7	84.9
Mean Queue	4.2	4.6	3.9	3.9	5.3	4.5	2.7	2.4	4.4	4.0
Max Queue	9.9	10.0	10.2	9.7	10.1	10.9	8.3	6.9	10.2	9.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.2	4.6	3.9	3.9	5.3	4.5	2.7	2.4	4.4	4.0
Total Max Queue	9.9	10.0	10.2	9.7	10.1	10.9	8.3	6.9	10.2	9.6
Speed	4.8	4.7	4.7	4.2	2.6	4.4	6.1	6.3	4.0	4.6

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	390.8	359.2	399.6	334.0	399.6	463.6	392.0	352.4	1,596.8	3,091.2
Delay	36.8	36.4	37.6	35.7	38.3	37.7	38.4	37.3	37.3	37.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.8	36.4	37.6	35.7	38.3	37.7	38.4	37.3	37.3	37.3
Mean Queue	2.0	1.9	1.8	1.6	2.1	2.6	2.0	1.6	2.0	2.0
Max Queue	8.4	7.9	7.1	6.6	7.1	8.0	8.3	6.6	7.2	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	1.9	1.8	1.6	2.1	2.6	2.0	1.6	2.0	2.0
Total Max Queue	8.4	7.9	7.1	6.6	7.1	8.0	8.3	6.6	7.2	7.5
Speed	28.0	27.8	25.8	29.1	27.3	27.2	28.7	29.2	27.3	27.8

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	120.8	137.6	147.6	192.8	182.0	197.6	159.6	140.0	720.0	1,278.0
Delay	25.9	37.8	39.2	26.9	36.6	41.4	35.6	29.4	36.0	34.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	37.8	39.2	26.9	36.6	41.4	35.6	29.4	36.0	34.3
Mean Queue	0.3	0.5	0.6	0.4	0.6	0.7	0.5	0.4	0.6	0.5
Max Queue	2.6	2.7	2.7	2.9	3.6	3.4	2.9	2.3	3.2	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.5	0.6	0.4	0.6	0.7	0.5	0.4	0.6	0.5
Total Max Queue	2.6	2.7	2.7	2.9	3.6	3.4	2.9	2.3	3.2	2.9
Speed	46.4	39.2	41.5	41.6	37.2	37.7	39.9	41.6	39.5	40.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	417.6	434.8	484.0	538.4	520.8	499.2	409.6	378.0	2,042.4	3,682.4
Delay	18.2	19.9	19.2	25.9	25.2	24.5	22.6	18.8	23.7	22.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.2	19.9	19.2	25.9	25.2	24.5	22.6	18.8	23.7	22.0
Mean Queue	0.9	1.2	1.1	1.8	1.8	1.4	1.2	0.9	1.5	1.3
Max Queue	4.8	4.4	4.7	6.7	6.0	5.3	4.9	3.5	5.7	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.2	1.1	1.8	1.8	1.4	1.2	0.9	1.5	1.3
Total Max Queue	4.8	4.4	4.7	6.7	6.0	5.3	4.9	3.5	5.7	5.1
Speed	27.3	26.5	27.1	25.2	25.6	25.2	26.3	27.7	25.8	26.3

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	278.4	290.8	279.6	313.2	322.8	426.0	312.0	300.0	1,341.6	2,522.8
Delay	32.4	32.8	34.9	33.2	34.7	40.5	36.8	30.5	35.8	34.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	32.8	34.9	33.2	34.7	40.5	36.8	30.5	35.8	34.6
Mean Queue	1.1	1.2	1.3	1.3	1.5	2.2	1.5	1.2	1.6	1.4
Max Queue	4.8	4.9	4.5	5.1	5.9	8.1	5.5	4.7	5.9	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.2	1.3	1.3	1.5	2.2	1.5	1.2	1.6	1.4
Total Max Queue	4.8	4.9	4.5	5.1	5.9	8.1	5.5	4.7	5.9	5.5
Speed	13.9	13.3	12.3	14.1	12.4	9.7	11.2	14.5	12.1	12.6

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	291.6	356.0	444.8	444.4	470.0	476.0	490.0	402.4	1,835.2	3,375.2
Delay	39.2	33.8	33.1	35.5	35.2	35.5	37.5	37.9	34.8	35.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	33.8	33.1	35.5	35.2	35.5	37.5	37.9	34.8	35.8
Mean Queue	1.2	1.4	1.7	1.8	1.7	2.0	1.6	1.7	1.8	1.7
Max Queue	6.0	6.6	7.6	8.0	7.7	8.3	8.1	8.1	7.9	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.4	1.7	1.8	1.7	2.0	1.6	1.7	1.8	1.7
Total Max Queue	6.0	6.6	7.6	8.0	7.7	8.3	8.1	8.1	7.9	7.6
Speed	32.5	30.7	30.5	30.5	29.0	30.0	30.2	28.7	30.0	30.2

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	501.2	456.0	556.4	516.4	462.8	470.4	430.4	479.6	2,006.0	3,873.2
Delay	33.4	31.6	35.6	31.8	33.7	33.4	32.7	33.6	33.6	33.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.4	31.6	35.6	31.8	33.7	33.4	32.7	33.6	33.6	33.3
Mean Queue	1.5	1.3	1.7	1.3	1.4	1.4	1.3	1.3	1.5	1.4
Max Queue	5.5	4.6	6.4	5.1	5.8	5.3	5.1	5.3	5.7	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.3	1.7	1.3	1.4	1.4	1.3	1.3	1.5	1.4
Total Max Queue	5.5	4.6	6.4	5.1	5.8	5.3	5.1	5.3	5.7	5.4
Speed	29.2	30.9	26.3	30.5	29.7	29.2	31.4	31.0	28.9	29.7

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	324.4	366.8	390.0	378.4	376.4	354.8	382.0	350.8	1,499.6	2,923.6
Delay	22.0	27.6	34.6	49.4	27.0	19.6	33.4	32.2	32.7	31.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	27.6	34.6	49.4	27.0	19.6	33.4	32.2	32.7	31.0
Mean Queue	1.2	1.1	1.7	2.5	1.3	1.0	1.6	1.5	1.6	1.5
Max Queue	5.4	4.8	5.7	7.0	4.5	3.9	6.0	5.2	5.3	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.7	2.5	1.3	1.0	1.6	1.5	1.6	1.5
Total Max Queue	5.4	4.8	5.7	7.0	4.5	3.9	6.0	5.2	5.3	5.3
Speed	23.6	25.2	22.9	18.8	21.5	25.2	22.7	24.1	22.1	22.9

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	263.2	302.4	315.2	337.2	294.8	284.8	297.2	275.2	1,232.0	2,370.0
Delay	34.6	40.5	42.4	42.5	37.3	35.2	38.1	36.9	39.3	38.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	40.5	42.4	42.5	37.3	35.2	38.1	36.9	39.3	38.5
Mean Queue	1.2	1.6	1.7	1.8	1.4	1.3	1.5	1.2	1.6	1.5
Max Queue	4.8	5.6	6.1	5.7	4.9	4.7	5.2	4.9	5.4	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.6	1.7	1.8	1.4	1.3	1.5	1.2	1.6	1.5
Total Max Queue	4.8	5.6	6.1	5.7	4.9	4.7	5.2	4.9	5.4	5.3
Speed	10.6	9.1	8.5	8.0	11.1	9.9	9.6	11.5	9.4	9.7

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	303.6	291.2	322.4	282.0	307.2	307.2	311.2	354.4	1,218.8	2,479.2
Delay	32.5	31.0	33.2	31.3	31.9	32.7	30.9	31.2	32.3	31.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	31.0	33.2	31.3	31.9	32.7	30.9	31.2	32.3	31.9
Mean Queue	1.2	1.1	1.2	1.0	1.1	1.1	1.0	1.3	1.1	1.1
Max Queue	5.7	5.6	5.8	5.0	5.6	5.7	5.7	6.0	5.5	5.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.2	1.0	1.1	1.1	1.0	1.3	1.1	1.1
Total Max Queue	5.7	5.6	5.8	5.0	5.6	5.7	5.7	6.0	5.5	5.6
Speed	31.9	31.8	31.6	33.8	32.1	31.4	30.4	31.2	32.2	31.8

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	636.8	548.8	665.6	653.6	717.2	655.6	674.4	606.0	2,692.0	5,158.0
Delay	28.1	39.1	46.6	30.3	40.0	43.3	29.5	35.7	40.0	37.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	39.1	46.6	30.3	40.0	43.3	29.5	35.7	40.0	37.0
Mean Queue	1.5	1.9	2.6	1.6	2.4	2.4	1.7	1.9	2.2	2.0
Max Queue	7.8	6.3	8.4	7.1	7.0	8.1	8.1	6.1	7.7	7.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.9	2.6	1.6	2.4	2.4	1.7	1.9	2.2	2.0
Total Max Queue	7.8	6.3	8.4	7.1	7.0	8.1	8.1	6.1	7.7	7.4
Speed	29.1	31.1	20.9	27.3	27.1	22.9	27.9	30.9	24.6	26.9

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	446.0	299.6	338.0	347.6	391.2	320.8	296.4	288.4	1,397.6	2,728.0
Delay	29.2	26.5	26.1	24.7	31.6	27.9	24.4	26.2	27.6	27.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	26.5	26.1	24.7	31.6	27.9	24.4	26.2	27.6	27.1
Mean Queue	1.6	1.2	1.0	1.2	1.6	1.1	1.0	0.9	1.2	1.2
Max Queue	6.3	4.2	4.2	4.6	5.6	4.4	4.1	3.9	4.7	4.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.2	1.0	1.2	1.6	1.1	1.0	0.9	1.2	1.2
Total Max Queue	6.3	4.2	4.2	4.6	5.6	4.4	4.1	3.9	4.7	4.7
Speed	23.5	25.0	25.3	24.6	23.3	25.3	25.4	25.3	24.6	24.7

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	330.0	365.6	318.4	334.0	343.2	324.4	293.2	294.4	1,320.0	2,603.2
Delay	56.1	93.1	79.7	64.3	70.2	76.3	48.5	41.1	72.6	66.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.1	93.1	79.7	64.3	70.2	76.3	48.5	41.1	72.6	66.9
Mean Queue	2.6	4.8	3.6	2.7	3.4	3.2	1.8	1.7	3.2	3.0
Max Queue	7.0	10.9	9.3	7.4	8.1	8.3	5.7	5.8	8.3	7.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	4.8	3.6	2.7	3.4	3.2	1.8	1.7	3.2	3.0
Total Max Queue	7.0	10.9	9.3	7.4	8.1	8.3	5.7	5.8	8.3	7.9
Speed	7.9	3.0	4.9	7.6	5.8	5.9	7.5	9.2	6.1	6.4

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	374.4	398.4	406.4	342.4	378.8	444.8	437.6	342.8	1,572.4	3,125.6
Delay	39.0	35.6	38.5	35.4	34.2	37.8	40.6	37.5	36.5	37.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	35.6	38.5	35.4	34.2	37.8	40.6	37.5	36.5	37.2
Mean Queue	2.1	2.0	1.9	1.6	1.7	2.5	2.5	1.6	2.0	2.0
Max Queue	8.2	7.3	8.1	6.9	6.9	7.7	8.4	7.0	7.4	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.0	1.9	1.6	1.7	2.5	2.5	1.6	2.0	2.0
Total Max Queue	8.2	7.3	8.1	6.9	6.9	7.7	8.4	7.0	7.4	7.5
Speed	26.8	27.2	25.8	30.6	28.4	27.6	27.1	29.4	28.1	27.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	158.0	175.2	203.6	234.8	226.4	221.2	196.4	173.2	886.0	1,588.8
Delay	30.0	39.0	36.0	29.6	38.0	37.4	33.2	33.1	35.2	34.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	39.0	36.0	29.6	38.0	37.4	33.2	33.1	35.2	34.6
Mean Queue	0.4	0.6	0.7	0.6	0.7	0.8	0.6	0.6	0.7	0.6
Max Queue	2.9	3.1	3.1	3.4	3.8	4.0	3.2	2.6	3.6	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.6	0.7	0.6	0.7	0.8	0.6	0.6	0.7	0.6
Total Max Queue	2.9	3.1	3.1	3.4	3.8	4.0	3.2	2.6	3.6	3.3
Speed	41.6	36.3	40.7	39.3	35.4	36.4	39.9	38.9	37.9	38.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	447.2	435.6	532.4	554.0	545.6	492.4	391.6	369.2	2,124.4	3,768.0
Delay	20.8	22.1	21.1	25.3	26.8	33.3	24.2	18.3	26.6	24.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	22.1	21.1	25.3	26.8	33.3	24.2	18.3	26.6	24.3
Mean Queue	1.2	1.2	1.4	1.8	2.0	2.0	1.2	0.8	1.8	1.5
Max Queue	5.7	5.2	5.6	6.2	7.3	6.8	4.6	3.9	6.5	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.2	1.4	1.8	2.0	2.0	1.2	0.8	1.8	1.5
Total Max Queue	5.7	5.2	5.6	6.2	7.3	6.8	4.6	3.9	6.5	5.8
Speed	27.0	26.7	26.0	23.9	23.5	22.5	25.6	27.2	24.0	25.1

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	253.2	276.8	255.2	300.0	309.2	392.8	283.2	271.6	1,257.2	2,342.0
Delay	32.0	31.9	30.6	30.8	30.8	38.2	31.9	32.6	32.6	32.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	31.9	30.6	30.8	30.8	38.2	31.9	32.6	32.6	32.4
Mean Queue	1.0	1.1	1.0	1.2	1.3	1.9	1.2	1.1	1.3	1.2
Max Queue	4.0	4.2	4.3	4.7	5.3	6.6	4.7	4.6	5.2	4.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.1	1.0	1.2	1.3	1.9	1.2	1.1	1.3	1.2
Total Max Queue	4.0	4.2	4.3	4.7	5.3	6.6	4.7	4.6	5.2	4.8
Speed	13.5	14.6	16.1	13.9	14.0	10.8	13.7	13.4	13.7	13.7

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	315.6	375.6	469.2	452.0	523.2	518.4	528.8	435.6	1,962.8	3,618.4
Delay	36.5	34.4	35.8	35.3	35.7	34.8	34.1	36.5	35.4	35.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	34.4	35.8	35.3	35.7	34.8	34.1	36.5	35.4	35.4
Mean Queue	1.2	1.5	1.9	1.7	2.0	2.2	1.8	1.8	1.9	1.8
Max Queue	6.4	6.8	8.6	8.1	8.5	8.8	8.3	7.7	8.5	8.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.5	1.9	1.7	2.0	2.2	1.8	1.8	1.9	1.8
Total Max Queue	6.4	6.8	8.6	8.1	8.5	8.8	8.3	7.7	8.5	8.0
Speed	32.7	31.4	27.3	30.8	29.3	29.4	30.2	28.3	29.2	29.8

2025 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	560.8	522.4	625.2	623.2	579.2	593.2	576.0	589.6	2,420.8	4,669.6
Delay	34.2	32.4	35.5	36.8	34.2	34.4	35.2	35.0	35.2	34.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.2	32.4	35.5	36.8	34.2	34.4	35.2	35.0	35.2	34.8
Mean Queue	1.7	1.5	2.0	1.8	1.7	1.8	1.8	1.7	1.8	1.8
Max Queue	6.2	6.0	6.1	5.8	6.0	6.3	6.4	6.4	6.1	6.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.5	2.0	1.8	1.7	1.8	1.8	1.7	1.8	1.8
Total Max Queue	6.2	6.0	6.1	5.8	6.0	6.3	6.4	6.4	6.1	6.1
Speed	27.5	28.9	25.0	25.3	26.7	26.4	26.2	26.7	25.8	26.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	337.6	367.2	408.4	366.4	347.2	371.2	374.8	348.8	1,493.2	2,921.6
Delay	32.5	33.0	69.3	51.1	39.5	44.8	71.6	58.8	51.2	50.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	33.0	69.3	51.1	39.5	44.8	71.6	58.8	51.2	50.2
Mean Queue	1.8	1.5	3.5	2.6	2.4	1.8	3.3	2.8	2.6	2.5
Max Queue	6.0	5.8	8.3	6.8	7.2	6.4	8.5	7.4	7.2	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.5	3.5	2.6	2.4	1.8	3.3	2.8	2.6	2.5
Total Max Queue	6.0	5.8	8.3	6.8	7.2	6.4	8.5	7.4	7.2	7.1
Speed	20.7	21.8	18.6	19.8	19.9	19.7	17.5	19.8	19.5	19.7

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	277.6	298.0	324.8	328.0	330.4	315.2	323.2	287.6	1,298.4	2,484.8
Delay	33.6	36.9	38.2	36.6	44.3	34.6	43.3	42.3	38.4	38.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	36.9	38.2	36.6	44.3	34.6	43.3	42.3	38.4	38.7
Mean Queue	1.2	1.5	1.6	1.5	1.9	1.3	1.8	1.5	1.6	1.6
Max Queue	4.6	5.4	5.4	5.8	5.7	4.9	6.7	5.8	5.5	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.5	1.6	1.5	1.9	1.3	1.8	1.5	1.6	1.6
Total Max Queue	4.6	5.4	5.4	5.8	5.7	4.9	6.7	5.8	5.5	5.5
Speed	10.2	11.9	10.8	10.8	8.8	11.3	9.2	9.4	10.4	10.3

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	334.4	350.0	392.8	339.2	350.8	385.2	404.8	375.6	1,468.0	2,932.8
Delay	30.8	32.3	30.8	30.6	29.5	31.5	30.7	31.1	30.6	30.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	32.3	30.8	30.6	29.5	31.5	30.7	31.1	30.6	30.9
Mean Queue	1.3	1.4	1.4	1.2	1.2	1.5	1.5	1.4	1.3	1.4
Max Queue	6.7	6.4	6.5	6.2	6.2	6.7	6.7	6.8	6.4	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.4	1.4	1.2	1.2	1.5	1.5	1.4	1.3	1.4
Total Max Queue	6.7	6.4	6.5	6.2	6.2	6.7	6.7	6.8	6.4	6.5
Speed	31.1	30.6	29.7	31.4	32.5	29.5	28.9	29.7	30.8	30.5

2025 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	640.8	580.0	665.2	663.6	743.6	698.4	642.0	636.4	2,770.8	5,270.0
Delay	31.6	38.4	44.3	30.1	41.6	40.9	25.4	35.4	39.2	36.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	38.4	44.3	30.1	41.6	40.9	25.4	35.4	39.2	36.3
Mean Queue	1.8	1.9	2.5	1.6	2.5	2.4	1.4	2.0	2.3	2.0
Max Queue	8.1	6.6	8.4	7.0	8.0	8.1	6.8	7.1	7.9	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.9	2.5	1.6	2.5	2.4	1.4	2.0	2.3	2.0
Total Max Queue	8.1	6.6	8.4	7.0	8.0	8.1	6.8	7.1	7.9	7.6
Speed	28.0	30.0	21.2	27.3	25.9	23.0	30.4	29.9	24.4	26.7

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	422.0	327.2	366.8	353.2	435.6	360.0	320.4	305.6	1,515.6	2,890.8
Delay	30.1	32.7	31.1	30.1	33.0	28.6	22.7	28.6	30.7	29.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	32.7	31.1	30.1	33.0	28.6	22.7	28.6	30.7	29.7
Mean Queue	1.5	1.5	1.3	1.5	1.8	1.3	1.0	1.1	1.5	1.4
Max Queue	6.1	5.2	4.7	5.4	6.1	4.9	3.9	4.4	5.3	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.5	1.3	1.5	1.8	1.3	1.0	1.1	1.5	1.4
Total Max Queue	6.1	5.2	4.7	5.4	6.1	4.9	3.9	4.4	5.3	5.1
Speed	24.9	25.5	24.9	25.4	23.5	24.7	26.9	25.8	24.6	25.1

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	334.4	340.0	309.2	346.0	325.6	328.0	293.2	302.4	1,308.8	2,578.8
Delay	83.3	92.5	113.2	103.0	93.3	97.2	52.5	58.2	101.7	88.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.3	92.5	113.2	103.0	93.3	97.2	52.5	58.2	101.7	88.3
Mean Queue	3.9	4.6	5.6	4.5	4.5	4.3	1.9	2.7	4.7	4.1
Max Queue	9.6	10.7	11.5	10.4	10.5	9.0	5.6	7.7	10.4	9.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.9	4.6	5.6	4.5	4.5	4.3	1.9	2.7	4.7	4.1
Total Max Queue	9.6	10.7	11.5	10.4	10.5	9.0	5.6	7.7	10.4	9.5
Speed	4.2	4.6	2.7	3.1	4.1	4.1	9.0	6.7	3.5	4.7

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	372.4	391.6	405.6	404.0	411.2	468.0	420.4	378.4	1,688.8	3,251.6
Delay	36.9	33.5	37.5	35.1	34.1	36.8	36.8	34.8	35.9	35.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	33.5	37.5	35.1	34.1	36.8	36.8	34.8	35.9	35.7
Mean Queue	1.9	1.8	1.9	1.9	1.8	2.6	2.1	1.6	2.0	2.0
Max Queue	8.0	7.2	7.7	7.4	7.8	8.1	8.0	6.7	7.8	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.8	1.9	1.9	1.8	2.6	2.1	1.6	2.0	2.0
Total Max Queue	8.0	7.2	7.7	7.4	7.8	8.1	8.0	6.7	7.8	7.6
Speed	28.3	28.7	26.6	27.2	29.2	28.2	28.8	29.6	27.8	28.3

2030 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	189.2	203.2	252.8	297.6	323.6	314.4	249.2	215.6	1,188.4	2,045.6
Delay	31.3	38.3	36.8	32.1	36.8	40.0	37.2	33.2	36.4	35.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	38.3	36.8	32.1	36.8	40.0	37.2	33.2	36.4	35.8
Mean Queue	0.5	0.7	0.9	0.8	1.0	1.1	0.8	0.7	1.0	0.8
Max Queue	3.2	3.2	3.5	4.6	4.3	4.7	3.8	3.8	4.3	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.7	0.9	0.8	1.0	1.1	0.8	0.7	1.0	0.8
Total Max Queue	3.2	3.2	3.5	4.6	4.3	4.7	3.8	3.8	4.3	3.9
Speed	40.4	36.7	39.1	36.5	32.4	32.6	37.3	37.0	35.2	36.4

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	510.8	518.4	607.6	615.2	566.4	583.6	514.0	462.8	2,372.8	4,378.8
Delay	41.3	38.3	43.8	51.8	73.6	92.1	56.0	34.0	65.3	55.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	38.3	43.8	51.8	73.6	92.1	56.0	34.0	65.3	55.1
Mean Queue	2.6	2.6	3.5	4.9	5.4	6.7	3.5	2.0	5.1	4.0
Max Queue	8.9	7.6	9.2	11.2	11.4	13.5	10.1	6.0	11.3	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.6	3.5	4.9	5.4	6.7	3.5	2.0	5.1	4.0
Total Max Queue	8.9	7.6	9.2	11.2	11.4	13.5	10.1	6.0	11.3	9.9
Speed	22.2	22.9	23.0	20.8	18.2	16.0	18.6	22.9	19.5	20.5

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	327.6	310.0	300.0	350.8	352.8	422.4	324.0	304.8	1,426.0	2,692.4
Delay	46.3	40.8	38.1	47.8	55.7	64.4	38.0	37.0	51.5	46.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	40.8	38.1	47.8	55.7	64.4	38.0	37.0	51.5	46.6
Mean Queue	2.0	1.7	1.5	2.2	2.8	3.6	1.6	1.5	2.5	2.1
Max Queue	6.8	4.8	5.5	6.1	7.8	8.8	5.9	5.2	7.1	6.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	1.7	1.5	2.2	2.8	3.6	1.6	1.5	2.5	2.1
Total Max Queue	6.8	4.8	5.5	6.1	7.8	8.8	5.9	5.2	7.1	6.4
Speed	10.9	11.5	13.1	9.4	8.6	7.6	12.9	11.2	9.7	10.5

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	336.4	406.0	536.8	524.4	576.4	599.6	619.2	474.0	2,237.2	4,072.8
Delay	41.5	32.6	35.2	37.0	37.2	33.9	35.5	36.2	35.8	36.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	32.6	35.2	37.0	37.2	33.9	35.5	36.2	35.8	36.1
Mean Queue	1.3	1.5	2.0	2.0	2.1	2.2	2.0	1.8	2.1	1.9
Max Queue	6.4	7.2	8.9	8.7	9.1	9.0	9.5	8.6	8.9	8.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.5	2.0	2.0	2.1	2.2	2.0	1.8	2.1	1.9
Total Max Queue	6.4	7.2	8.9	8.7	9.1	9.0	9.5	8.6	8.9	8.5
Speed	30.5	29.6	29.4	29.1	29.2	30.7	30.4	29.5	29.6	29.8

2030 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	704.4	681.2	748.4	762.0	681.2	681.2	702.8	681.2	2,872.8	5,642.4
Delay	36.2	39.1	48.2	63.0	60.7	95.8	120.7	135.9	66.9	74.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.2	39.1	48.2	63.0	60.7	95.8	120.7	135.9	66.9	74.0
Mean Queue	2.2	2.3	3.5	3.9	4.1	6.6	7.3	7.9	4.5	4.7
Max Queue	7.7	7.3	9.0	9.3	9.8	11.5	12.2	12.8	9.9	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.3	3.5	3.9	4.1	6.6	7.3	7.9	4.5	4.7
Total Max Queue	7.7	7.3	9.0	9.3	9.8	11.5	12.2	12.8	9.9	9.9
Speed	23.4	23.1	19.1	16.0	16.5	10.6	8.7	6.4	15.5	15.5

Arm Reference:	B
Name	A66 Westbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	394.4	454.0	472.0	357.2	296.0	435.2	403.2	319.6	1,560.4	3,131.6
Delay	49.9	46.3	91.2	117.2	88.6	159.5	175.2	204.2	114.1	116.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	46.3	91.2	117.2	88.6	159.5	175.2	204.2	114.1	116.2
Mean Queue	3.2	2.4	5.5	6.2	6.6	8.6	7.7	8.6	6.7	6.2
Max Queue	11.1	8.3	11.8	11.6	12.1	15.3	13.6	12.9	12.7	12.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.2	2.4	5.5	6.2	6.6	8.6	7.7	8.6	6.7	6.2
Total Max Queue	11.1	8.3	11.8	11.6	12.1	15.3	13.6	12.9	12.7	12.2
Speed	19.2	19.9	14.2	15.2	14.8	8.9	10.1	9.3	13.3	13.9

Arm Reference:	C
Name	Borough Road (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	290.4	344.4	368.0	310.8	306.4	300.4	307.2	302.4	1,285.6	2,530.0
Delay	40.5	43.1	48.1	52.6	88.0	85.5	74.5	92.2	68.5	65.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	43.1	48.1	52.6	88.0	85.5	74.5	92.2	68.5	65.9
Mean Queue	1.6	2.0	2.3	2.1	4.1	4.0	2.9	3.7	3.1	2.9
Max Queue	6.5	7.2	7.1	6.5	9.8	10.2	9.9	9.5	8.4	8.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	2.0	2.3	2.1	4.1	4.0	2.9	3.7	3.1	2.9
Total Max Queue	6.5	7.2	7.1	6.5	9.8	10.2	9.9	9.5	8.4	8.3
Speed	9.5	9.4	8.4	7.9	5.7	5.8	6.4	5.4	7.0	7.3

Arm Reference:	D
Name	A66 Eastbound Off-Slip

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	390.4	402.4	462.8	433.2	487.2	494.0	476.4	539.6	1,877.2	3,686.0
Delay	29.8	30.4	33.5	35.3	40.5	51.3	49.7	41.6	40.2	39.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.8	30.4	33.5	35.3	40.5	51.3	49.7	41.6	40.2	39.1
Mean Queue	1.4	1.5	1.8	2.1	2.5	3.4	3.1	3.2	2.5	2.4
Max Queue	7.7	7.2	7.4	7.1	8.3	8.6	8.7	9.2	7.9	8.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.5	1.8	2.1	2.5	3.4	3.1	3.2	2.5	2.4
Total Max Queue	7.7	7.2	7.4	7.1	8.3	8.6	8.7	9.2	7.9	8.0
Speed	31.0	28.9	28.6	29.2	25.8	27.7	26.0	27.7	27.8	28.1

2030 Do Something

J-08 **J-08: A66 / Borough Road GSJ**

Arm Reference:	A
Name	Borough Road (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	734.8	643.6	794.8	718.4	800.8	740.0	767.6	776.8	3,054.0	5,976.8
Delay	30.2	40.3	46.2	32.2	44.0	41.8	33.3	38.7	41.1	38.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	40.3	46.2	32.2	44.0	41.8	33.3	38.7	41.1	38.6
Mean Queue	1.9	2.3	3.1	1.8	2.9	2.7	2.3	2.6	2.6	2.5
Max Queue	8.6	7.6	9.5	7.4	8.1	9.3	8.3	7.9	8.6	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	2.3	3.1	1.8	2.9	2.7	2.3	2.6	2.6	2.5
Total Max Queue	8.6	7.6	9.5	7.4	8.1	9.3	8.3	7.9	8.6	8.4
Speed	27.6	28.1	20.1	26.4	24.5	21.4	26.0	26.9	23.1	24.9

Arm Reference:	B
Name	A66 Westbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	526.8	362.8	407.6	404.4	430.8	390.4	375.2	353.6	1,633.2	3,251.6
Delay	57.2	47.1	47.6	33.6	46.8	57.7	37.4	34.9	46.4	45.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	47.1	47.6	33.6	46.8	57.7	37.4	34.9	46.4	45.4
Mean Queue	3.5	2.6	2.2	1.9	3.1	2.5	2.1	1.4	2.4	2.4
Max Queue	9.2	7.2	7.1	5.8	7.8	7.7	6.4	5.1	7.1	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	2.6	2.2	1.9	3.1	2.5	2.1	1.4	2.4	2.4
Total Max Queue	9.2	7.2	7.1	5.8	7.8	7.7	6.4	5.1	7.1	7.0
Speed	19.7	22.7	22.0	23.4	22.6	19.7	22.9	23.4	21.9	22.0

Arm Reference:	C
Name	Borough Road (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	322.4	342.0	311.2	335.2	318.0	316.8	311.2	291.2	1,281.2	2,548.0
Delay	87.4	117.7	102.5	104.6	123.2	122.0	79.0	48.9	113.1	99.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	87.4	117.7	102.5	104.6	123.2	122.0	79.0	48.9	113.1	99.8
Mean Queue	4.0	5.8	5.0	4.6	6.1	5.1	3.2	2.1	5.2	4.6
Max Queue	11.1	11.1	10.8	10.2	11.0	11.2	8.2	6.7	10.8	10.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.0	5.8	5.0	4.6	6.1	5.1	3.2	2.1	5.2	4.6
Total Max Queue	11.1	11.1	10.8	10.2	11.0	11.2	8.2	6.7	10.8	10.1
Speed	4.5	2.8	2.8	3.4	2.4	2.3	4.2	7.8	2.7	3.7

Arm Reference:	D
Name	A66 Eastbound Off-Slip

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	390.8	419.6	438.4	389.2	418.4	502.0	436.8	411.6	1,748.0	3,406.8
Delay	38.2	35.4	37.3	36.7	32.7	34.4	38.8	37.0	35.2	36.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.2	35.4	37.3	36.7	32.7	34.4	38.8	37.0	35.2	36.2
Mean Queue	2.1	2.0	2.0	1.9	1.8	2.5	2.3	1.8	2.1	2.1
Max Queue	8.6	8.0	8.4	7.6	7.5	8.5	8.9	7.7	8.0	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.0	2.0	1.9	1.8	2.5	2.3	1.8	2.1	2.1
Total Max Queue	8.6	8.0	8.4	7.6	7.5	8.5	8.9	7.7	8.0	8.1
Speed	26.9	28.0	26.7	27.7	29.1	28.7	26.9	27.9	28.0	27.8

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-09 **J-09: Shepherdson Way / Heath Road**

Arm Reference:	A
Name	Shepherdson Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	69.6	84.8	110.8	149.2	131.6	153.2	130.0	99.2	544.8	928.4
Delay	0.5	0.9	1.1	1.3	0.8	1.6	1.2	0.9	1.2	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.9	1.1	1.3	0.8	1.6	1.2	0.9	1.2	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.6	0.9	1.3	1.7	0.8	1.7	1.1	0.8	1.4	1.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.6	0.9	1.3	1.7	0.8	1.7	1.1	0.8	1.4	1.1
Speed	51.0	48.3	48.1	47.0	48.6	45.0	46.8	48.6	47.2	47.8

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	31.2	42.0	33.2	41.6	72.0	22.4	35.2	40.0	169.2	317.6
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	53.1	53.2	53.6	54.6	52.9	52.1	53.1	53.1	53.3	53.2

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	260.0	345.6	385.6	427.6	446.8	505.6	440.8	390.0	1,765.6	3,202.0
Delay	1.0	1.0	1.1	1.2	1.2	1.1	1.0	1.2	1.2	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.0	1.1	1.2	1.2	1.1	1.0	1.2	1.2	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.3	0.1	0.6	0.7	0.5	0.2	0.2	0.5	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.3	0.1	0.6	0.7	0.5	0.2	0.2	0.5	0.4
Speed	47.9	47.7	47.8	46.9	46.5	47.1	48.2	47.2	47.1	47.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-09: Shepherdson Way / Heath Road

Arm Reference:	A
Name:	Shepherdson Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	170.0	155.2	161.6	208.0	163.2	162.4	132.0	145.6	695.2	1,298.0
Delay	0.9	1.0	1.0	1.6	0.9	1.2	0.9	0.8	1.2	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	1.0	1.0	1.6	0.9	1.2	0.9	0.8	1.2	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.4	1.0	1.1	2.8	0.9	1.4	0.9	0.8	1.6	1.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.4	1.0	1.1	2.8	0.9	1.4	0.9	0.8	1.6	1.3
Speed	48.3	47.8	47.5	45.4	48.5	47.2	48.7	48.6	47.2	47.7

Arm Reference:	B
Name:	Heath Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	106.0	60.0	106.4	94.4	54.0	107.2	76.8	60.4	362.0	665.2
Delay	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.1	51.9	51.8	51.5	51.3	51.6	51.9	52.4	51.6	51.8

Arm Reference:	C
Name:	Borough Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	206.4	220.4	271.6	212.4	268.8	252.0	239.6	246.0	1,004.8	1,917.2
Delay	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Speed	48.0	47.8	47.7	47.6	47.7	48.0	48.4	48.3	47.7	47.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	321.6	256.0	258.4	253.6	290.8	268.8	238.4	196.4	1,071.6	2,084.0
Delay	1.9	1.4	1.2	1.3	1.6	1.1	1.6	1.7	1.3	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	1.4	1.2	1.3	1.6	1.1	1.6	1.7	1.3	1.4
Mean Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	3.3	1.8	1.8	1.7	2.9	1.7	2.1	2.0	2.0	2.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	3.3	1.8	1.8	1.7	2.9	1.7	2.1	2.0	2.0	2.1
Speed	43.8	46.2	46.6	46.5	45.3	47.2	45.9	46.4	46.4	46.0

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	133.6	107.6	221.6	136.4	187.2	114.0	134.0	155.6	659.2	1,190.0
Delay	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.0
Speed	50.0	51.6	50.0	50.9	49.7	51.0	51.0	50.2	50.4	50.5

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	258.8	170.4	223.6	207.2	228.4	190.8	191.2	216.0	850.0	1,686.4
Delay	1.1	1.1	1.0	1.1	1.0	1.0	1.8	1.1	1.0	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.1	1.0	1.1	1.0	1.0	1.8	1.1	1.0	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.1	0.0	0.1	0.2	0.3	0.7	0.2	0.2	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	0.1	0.0	0.1	0.2	0.3	0.7	0.2	0.2	0.3
Speed	46.8	47.1	47.6	46.3	47.4	47.1	46.0	46.7	47.1	46.9

2025 Do Minimum

J-09 J-09: Sheperdson Way / Heath Road

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	93.6	123.6	127.6	164.0	162.0	172.0	128.8	115.6	625.6	1,087.2
Delay	0.7	1.1	1.2	1.5	1.4	1.8	1.4	1.0	1.5	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	1.1	1.2	1.5	1.4	1.8	1.4	1.0	1.5	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	1.4	1.5	2.1	1.7	2.2	1.3	0.9	1.9	1.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	1.4	1.5	2.1	1.7	2.2	1.3	0.9	1.9	1.5
Speed	49.9	47.5	47.8	45.3	46.9	44.7	46.4	48.0	46.2	47.0

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	38.8	59.6	63.2	55.6	86.0	58.8	55.6	35.2	263.6	452.8
Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Speed	53.4	53.5	53.2	52.9	52.0	53.5	52.7	53.0	52.9	53.0

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	354.0	474.4	532.8	592.0	611.6	699.6	598.8	482.8	2,436.0	4,346.0
Delay	1.0	1.2	1.2	1.4	1.5	1.5	1.2	1.1	1.4	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.2	1.2	1.4	1.5	1.5	1.2	1.1	1.4	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.5	0.6	1.0	1.5	1.0	0.6	0.6	1.0	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.5	0.6	1.0	1.5	1.0	0.6	0.6	1.0	0.8
Speed	47.9	46.8	46.4	45.9	44.7	45.1	46.9	47.2	45.5	46.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	235.6	217.6	259.2	261.2	264.4	221.6	204.8	236.0	1,006.4	1,900.4
Delay	1.6	1.6	2.3	2.0	2.2	1.9	1.8	2.0	2.1	2.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.6	2.3	2.0	2.2	1.9	1.8	2.0	2.1	2.0
Mean Queue	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Max Queue	2.5	1.8	3.0	3.0	3.3	2.5	2.1	2.8	3.0	2.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Max Queue	2.5	1.8	3.0	3.0	3.3	2.5	2.1	2.8	3.0	2.7
Speed	45.1	45.0	42.7	43.3	43.0	43.7	44.2	43.8	43.2	43.8

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	237.2	222.0	273.2	245.2	242.0	249.2	238.8	226.4	1,009.6	1,934.0
Delay	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.1
Speed	50.4	49.8	49.1	50.3	49.4	50.4	51.2	50.5	49.8	50.1

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	436.0	485.2	528.4	436.0	482.0	484.8	487.2	449.6	1,931.2	3,789.2
Delay	1.0	1.0	1.2	1.1	1.2	1.0	1.0	1.0	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.0	1.2	1.1	1.2	1.0	1.0	1.0	1.1	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.5	0.9	0.4	0.3	0.2	0.4	0.2	0.5	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	0.5	0.9	0.4	0.3	0.2	0.4	0.2	0.5	0.4
Speed	47.5	47.0	46.4	46.6	46.2	47.3	47.1	47.3	46.6	46.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-09 J-09: Sheperdson Way / Heath Road

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	354.4	304.8	340.8	331.2	351.6	341.6	337.6	278.4	1,365.2	2,640.4
Delay	3.5	2.6	2.6	2.8	2.8	2.9	3.1	1.9	2.8	2.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	2.6	2.6	2.8	2.8	2.9	3.1	1.9	2.8	2.8
Mean Queue	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Max Queue	4.7	3.6	4.2	3.8	4.5	5.0	4.7	2.9	4.4	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Total Max Queue	4.7	3.6	4.2	3.8	4.5	5.0	4.7	2.9	4.4	4.2
Speed	38.9	41.2	41.5	41.5	40.4	41.1	40.3	43.6	41.1	41.1

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	287.2	254.8	324.4	277.6	298.4	251.2	261.6	312.4	1,151.6	2,267.6
Delay	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.3	0.2	0.2
Speed	49.5	49.8	48.7	48.7	47.7	48.5	48.6	48.7	48.4	48.8

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	456.8	350.0	388.0	326.8	432.8	432.0	368.0	390.4	1,579.6	3,144.8
Delay	1.6	1.1	1.2	1.3	1.0	1.1	1.1	0.9	1.1	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.1	1.2	1.3	1.0	1.1	1.1	0.9	1.1	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.3	0.5	0.6	0.8	0.3	0.6	0.6	0.1	0.6	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.3	0.5	0.6	0.8	0.3	0.6	0.6	0.1	0.6	0.6
Speed	43.9	46.9	46.4	45.3	46.9	46.5	46.3	47.6	46.3	46.2

2030 Do Minimum

J-09 J-09: Sheperdson Way / Heath Road

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	95.6	119.2	130.0	178.4	150.8	184.4	120.0	112.0	643.6	1,090.4
Delay	0.7	0.9	1.4	1.9	1.2	1.2	1.3	0.9	1.4	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.9	1.4	1.9	1.2	1.2	1.3	0.9	1.4	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	1.0	1.4	2.7	1.2	1.5	1.5	0.8	1.7	1.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	1.0	1.4	2.7	1.2	1.5	1.5	0.8	1.7	1.4
Speed	49.1	48.0	46.9	44.4	46.4	46.5	46.5	48.4	46.1	46.9

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	38.0	56.0	75.6	53.6	87.2	55.2	46.0	40.8	271.6	452.4
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	53.5	53.6	52.4	53.9	53.1	53.5	52.9	53.7	53.2	53.3

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	403.2	488.0	562.0	624.0	612.8	741.2	666.8	536.4	2,540.0	4,634.4
Delay	1.0	1.1	1.3	1.4	1.4	1.5	1.1	1.2	1.4	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.1	1.3	1.4	1.4	1.5	1.1	1.2	1.4	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.6	0.8	0.9	1.2	1.3	0.4	0.5	1.1	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.6	0.8	0.9	1.2	1.3	0.4	0.5	1.1	0.8
Speed	47.9	47.0	46.1	45.5	45.4	45.1	47.5	46.9	45.5	46.3

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	266.4	229.6	266.8	268.4	255.2	214.8	201.2	230.4	1,005.2	1,932.8
Delay	2.3	1.7	2.6	2.1	1.7	1.9	1.7	2.2	2.1	2.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	1.7	2.6	2.1	1.7	1.9	1.7	2.2	2.1	2.0
Mean Queue	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Max Queue	4.0	2.0	3.5	2.7	2.1	2.5	1.9	2.9	2.7	2.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Total Max Queue	4.0	2.0	3.5	2.7	2.1	2.5	1.9	2.9	2.7	2.7
Speed	43.1	44.8	42.3	43.5	44.7	44.2	45.0	43.1	43.7	43.8

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	235.2	234.4	271.2	248.8	216.0	238.4	228.4	230.0	974.4	1,902.4
Delay	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.2	0.2	0.0	0.1	0.2	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.2	0.2	0.0	0.1	0.2	0.1	0.1	0.1
Speed	50.7	50.0	49.8	49.7	51.1	50.1	49.4	49.8	50.2	50.1

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	441.6	490.4	513.2	475.6	523.6	496.0	484.4	482.8	2,008.4	3,907.6
Delay	1.3	1.2	1.3	1.2	1.2	1.0	1.2	1.1	1.2	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.2	1.3	1.2	1.2	1.0	1.2	1.1	1.2	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.1	1.0	0.9	0.5	0.7	0.3	0.6	0.5	0.6	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.1	1.0	0.9	0.5	0.7	0.3	0.6	0.5	0.6	0.7
Speed	45.8	46.0	45.9	46.1	46.2	47.0	47.0	47.1	46.3	46.4

2030 Do Minimum

J-09 J-09: Sheperdson Way / Heath Road

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	380.8	326.4	336.8	354.4	376.4	374.8	391.6	307.6	1,442.4	2,848.8
Delay	3.4	2.9	2.1	4.0	2.9	2.9	3.7	2.4	3.0	3.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.4	2.9	2.1	4.0	2.9	2.9	3.7	2.4	3.0	3.0
Mean Queue	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1
Max Queue	5.4	4.1	4.1	5.2	4.0	4.5	5.3	4.2	4.5	4.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1
Total Max Queue	5.4	4.1	4.1	5.2	4.0	4.5	5.3	4.2	4.5	4.6
Speed	39.3	41.2	43.1	38.0	40.1	40.7	38.5	42.1	40.5	40.4

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	283.6	236.4	344.4	281.6	344.0	250.8	267.2	308.8	1,220.8	2,316.8
Delay	0.3	0.2	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.2	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.2	0.5	0.1	0.4	0.2	0.0	0.3	0.3	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.5	0.2	0.5	0.1	0.4	0.2	0.0	0.3	0.3	0.3
Speed	48.2	49.9	47.4	48.1	47.3	48.7	49.3	48.3	47.9	48.3

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	453.2	373.2	390.8	350.0	444.0	425.6	392.8	368.4	1,610.4	3,198.0
Delay	1.6	1.1	1.1	1.3	1.2	1.1	1.0	1.1	1.2	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.1	1.1	1.3	1.2	1.1	1.0	1.1	1.2	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.9	0.5	0.4	0.5	0.5	0.4	0.5	0.3	0.5	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.5	0.4	0.5	0.5	0.4	0.5	0.3	0.5	0.5
Speed	43.1	46.7	46.6	45.3	46.1	46.3	46.4	46.5	46.1	45.9

2025 Do Something

J-09 J-09: Sheperdson Way / Heath Road

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	102.0	126.4	138.8	174.4	158.8	164.0	130.4	118.0	636.0	1,112.8
Delay	1.2	0.9	1.5	2.1	1.8	2.1	1.9	1.3	1.8	1.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	0.9	1.5	2.1	1.8	2.1	1.9	1.3	1.8	1.6
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.4	1.1	1.4	2.2	1.7	2.4	1.7	1.2	1.9	1.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.4	1.1	1.4	2.2	1.7	2.4	1.7	1.2	1.9	1.7
Speed	47.2	48.0	46.0	43.8	44.4	43.4	45.3	47.4	44.4	45.6

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	68.4	85.2	116.4	98.8	120.0	94.8	69.6	68.0	430.0	721.2
Delay	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.7	53.0	53.3	52.0	52.4	51.9	52.5	52.8	52.4	52.6

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	451.2	512.4	625.6	672.4	678.4	804.0	700.0	547.6	2,780.4	4,991.6
Delay	1.0	1.2	1.3	1.2	1.4	1.3	1.1	1.0	1.3	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.2	1.3	1.2	1.4	1.3	1.1	1.0	1.3	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.6	1.2	1.1	1.3	1.4	0.3	0.4	1.3	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.6	1.2	1.1	1.3	1.4	0.3	0.4	1.3	0.9
Speed	47.6	46.8	46.2	46.2	45.1	45.9	47.6	47.5	45.8	46.5

2025 Do Something

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	263.2	227.6	262.8	280.0	275.6	238.4	236.0	242.0	1,056.8	2,025.6
Delay	2.3	2.2	2.4	2.8	2.9	2.3	2.6	2.4	2.6	2.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	2.2	2.4	2.8	2.9	2.3	2.6	2.4	2.6	2.5
Mean Queue	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.4	2.5	3.2	3.9	3.7	2.4	2.8	3.0	3.3	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.4	2.5	3.2	3.9	3.7	2.4	2.8	3.0	3.3	3.1
Speed	43.0	43.4	42.2	41.0	40.7	42.8	42.0	42.3	41.7	42.1

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	295.6	290.4	353.2	302.0	300.0	318.0	314.0	292.8	1,273.2	2,466.0
Delay	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.2	0.3	0.1	0.1	0.0	0.1	0.2	0.1	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.2	0.3	0.1	0.1	0.0	0.1	0.2	0.1	0.2
Speed	48.9	49.8	48.7	48.5	49.8	49.7	49.3	49.0	49.2	49.2

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	481.6	530.8	588.4	510.4	547.2	571.2	592.4	525.2	2,217.2	4,347.2
Delay	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.9	0.4	0.6	0.8	0.6	0.4	0.5	0.6	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.9	0.4	0.6	0.8	0.6	0.4	0.5	0.6	0.6
Speed	46.5	46.4	46.4	46.4	46.1	46.8	47.0	46.7	46.4	46.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	345.6	306.0	334.4	341.2	379.2	353.2	330.0	286.8	1,408.0	2,676.4
Delay	3.5	2.7	2.5	3.2	3.8	3.3	3.2	2.6	3.2	3.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.5	2.7	2.5	3.2	3.8	3.3	3.2	2.6	3.2	3.1
Mean Queue	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1
Max Queue	5.4	3.7	3.9	4.1	5.0	4.7	5.0	3.6	4.4	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1
Total Max Queue	5.4	3.7	3.9	4.1	5.0	4.7	5.0	3.6	4.4	4.4
Speed	39.3	41.5	42.2	40.5	37.7	40.6	40.5	42.0	40.3	40.5

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	320.8	266.8	346.0	304.0	400.0	310.8	305.2	352.4	1,360.8	2,606.0
Delay	0.2	0.2	0.3	0.3	0.4	0.7	0.3	0.2	0.4	0.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.3	0.3	0.4	0.7	0.3	0.2	0.4	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.0	0.4	0.0	0.8	0.3	0.2	0.3	0.4	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.0	0.4	0.0	0.8	0.3	0.2	0.3	0.4	0.3
Speed	49.3	49.4	47.2	48.4	46.0	47.4	47.7	49.3	47.2	48.0

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	450.0	399.6	400.4	381.2	494.8	470.4	385.6	423.6	1,746.8	3,405.6
Delay	1.3	1.2	1.1	1.2	1.2	1.3	1.1	1.0	1.2	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.2	1.1	1.2	1.2	1.3	1.1	1.0	1.2	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.3	0.6	0.6	0.8	0.9	1.3	0.7	0.2	0.9	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.3	0.6	0.6	0.8	0.9	1.3	0.7	0.2	0.9	0.8
Speed	44.8	46.6	46.1	45.2	45.5	45.3	46.4	47.1	45.6	45.9

2030 Do Something

J-09: Shepherdson Way / Heath Road

Arm Reference:	A
Name:	Shepherdson Way

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	102.0	119.2	134.4	167.6	177.6	176.8	141.6	120.4	656.4	1,139.6
Delay	1.2	1.3	2.1	3.2	3.8	2.4	2.6	1.4	2.9	2.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	1.3	2.1	3.2	3.8	2.4	2.6	1.4	2.9	2.3
Mean Queue	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Max Queue	1.8	1.2	1.9	3.5	4.1	2.5	2.5	1.5	3.0	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Total Max Queue	1.8	1.2	1.9	3.5	4.1	2.5	2.5	1.5	3.0	2.4
Speed	47.5	46.0	44.2	40.2	39.8	42.2	41.9	46.1	41.6	43.3

Arm Reference:	B
Name:	Heath Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	93.2	108.0	173.2	171.6	199.2	181.2	112.4	105.6	725.2	1,144.4
Delay	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.7	53.1	52.2	52.2	51.9	51.1	52.5	52.4	51.8	52.2

Arm Reference:	C
Name:	Borough Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	546.0	624.4	753.2	795.2	791.6	917.2	869.6	693.2	3,257.2	5,990.4
Delay	1.0	1.2	1.1	1.5	1.3	1.4	1.1	1.1	1.3	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.2	1.1	1.5	1.3	1.4	1.1	1.1	1.3	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	1.3	0.5	1.6	1.3	1.7	0.5	1.0	1.3	1.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	1.3	0.5	1.6	1.3	1.7	0.5	1.0	1.3	1.1
Speed	47.7	46.5	46.3	44.6	45.5	45.3	47.4	46.7	45.4	46.2

2030 Do Something

J-09: Shepherdson Way / Heath Road

Arm Reference:	A
Name	Shepherdson Way

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	266.4	254.0	286.8	269.2	258.0	250.8	246.0	224.8	1,064.8	2,056.0
Delay	3.2	3.2	4.6	3.5	3.7	3.7	10.3	11.3	3.9	5.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	3.2	4.6	3.5	3.7	3.7	10.3	11.3	3.9	5.3
Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.5	0.6	0.2	0.3
Max Queue	4.0	3.4	4.5	4.4	4.0	4.1	5.3	6.3	4.3	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.5	0.6	0.2	0.3
Total Max Queue	4.0	3.4	4.5	4.4	4.0	4.1	5.3	6.3	4.3	4.5
Speed	40.5	40.4	36.7	40.0	39.9	39.7	34.5	36.7	39.1	38.6

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	444.8	417.2	476.0	431.6	444.4	432.0	434.0	393.6	1,784.0	3,473.6
Delay	0.3	0.3	0.3	0.5	1.0	3.2	10.1	11.5	1.3	3.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.3	0.3	0.5	1.0	3.2	10.1	11.5	1.3	3.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.1	0.2
Max Queue	0.7	0.4	0.5	0.6	0.5	1.0	1.4	0.9	0.7	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.2	0.5	0.6	0.1	0.2
Total Max Queue	0.7	0.4	0.5	0.6	0.5	1.0	1.4	0.9	0.7	0.7
Speed	47.9	47.7	47.4	46.9	45.9	41.6	32.0	31.7	45.5	43.0

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	609.6	669.6	730.8	546.8	610.4	670.0	640.0	636.4	2,558.0	5,113.6
Delay	1.1	1.4	1.3	1.2	1.3	1.3	2.1	1.7	1.3	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.4	1.3	1.2	1.3	1.3	2.1	1.7	1.3	1.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Max Queue	0.9	1.3	1.2	0.7	0.7	1.1	1.9	1.8	0.9	1.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Max Queue	0.9	1.3	1.2	0.7	0.7	1.1	1.9	1.8	0.9	1.2
Speed	46.0	45.4	45.6	46.0	45.5	46.0	44.7	45.8	45.8	45.6

2030 Do Something

J-09 **J-09: Sheperdson Way / Heath Road**

Arm Reference:	A
Name	Sheperdson Way

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	374.0	332.8	350.4	323.6	386.8	384.0	387.2	341.2	1,444.8	2,880.0
Delay	5.1	3.7	3.3	3.3	4.1	5.1	4.4	3.6	4.0	4.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	3.7	3.3	3.3	4.1	5.1	4.4	3.6	4.0	4.1
Mean Queue	0.3	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.2
Max Queue	6.0	5.2	5.6	4.3	5.2	6.4	5.7	4.8	5.4	5.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.2	0.1	0.2	0.3	0.3	0.2	0.2	0.2
Total Max Queue	6.0	5.2	5.6	4.3	5.2	6.4	5.7	4.8	5.4	5.4
Speed	36.2	39.0	41.0	40.1	37.1	36.4	37.6	39.3	38.7	38.4

Arm Reference:	B
Name	Heath Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	394.4	336.4	460.4	376.4	438.8	349.2	380.8	441.2	1,624.8	3,177.6
Delay	0.4	0.3	0.6	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.3	0.6	0.3	0.3	0.4	0.4	0.4	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.3	0.8	0.3	0.1	0.4	0.8	0.5	0.4	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.3	0.8	0.3	0.1	0.4	0.8	0.5	0.4	0.5
Speed	46.4	48.6	45.5	47.8	47.4	46.7	46.4	47.3	46.8	47.0

Arm Reference:	C
Name	Borough Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	523.2	444.4	488.4	394.0	482.0	540.4	432.8	491.2	1,904.8	3,796.4
Delay	1.4	1.3	1.3	1.2	1.4	1.2	1.2	1.1	1.3	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.3	1.3	1.2	1.4	1.2	1.2	1.1	1.3	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.1	0.7	1.1	0.6	1.3	1.2	0.6	0.7	1.1	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.1	0.7	1.1	0.6	1.3	1.2	0.6	0.7	1.1	0.9
Speed	44.7	46.1	45.6	45.9	45.1	45.9	45.5	46.6	45.6	45.7

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	504.8	519.6	673.2	653.6	615.6	574.4	516.0	428.4	2,516.8	4,485.6
Delay	4.7	4.3	8.0	14.0	5.4	4.5	3.6	2.9	8.0	6.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.7	4.3	8.0	14.0	5.4	4.5	3.6	2.9	8.0	6.2
Mean Queue	0.4	0.3	0.9	1.7	0.6	0.4	0.3	0.2	0.9	0.6
Max Queue	7.7	6.5	10.0	12.1	8.0	6.9	6.4	4.9	9.3	8.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.3	0.9	1.7	0.6	0.4	0.3	0.2	0.9	0.6
Total Max Queue	7.7	6.5	10.0	12.1	8.0	6.9	6.4	4.9	9.3	8.0
Speed	39.0	39.9	34.0	31.5	38.6	38.8	39.9	40.9	35.7	37.6

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	642.4	614.8	662.4	647.6	569.6	648.0	572.4	541.2	2,527.6	4,898.4
Delay	9.0	7.9	13.8	13.7	8.4	6.4	6.0	3.8	10.6	8.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	7.9	13.8	13.7	8.4	6.4	6.0	3.8	10.6	8.8
Mean Queue	0.7	0.6	1.2	1.2	0.5	0.5	0.4	0.2	0.8	0.7
Max Queue	2.8	2.9	3.2	3.5	2.4	3.1	2.6	2.1	3.1	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	1.2	1.2	0.5	0.5	0.4	0.2	0.8	0.7
Total Max Queue	2.8	2.9	3.2	3.5	2.4	3.1	2.6	2.1	3.1	2.9
Speed	24.4	25.4	18.3	19.4	25.7	28.4	28.3	34.4	22.9	25.2

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	861.2	908.0	836.8	971.2	922.4	680.4	650.4	788.4	3,410.8	6,618.8
Delay	80.9	70.4	95.0	72.2	36.1	8.5	10.2	9.3	52.9	48.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.9	70.4	95.0	72.2	36.1	8.5	10.2	9.3	52.9	48.4
Mean Queue	16.4	13.5	18.1	14.9	5.5	0.8	1.1	1.0	9.8	9.0
Max Queue	41.4	39.7	41.9	41.1	25.7	8.3	10.7	11.1	29.3	27.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	16.4	13.5	18.1	14.9	5.5	0.8	1.1	1.0	9.8	9.0
Total Max Queue	41.4	39.7	41.9	41.1	25.7	8.3	10.7	11.1	29.3	27.7
Speed	19.1	20.0	18.0	20.4	23.4	28.4	29.5	30.6	22.5	23.5

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	618.0	708.0	874.0	848.0	692.4	734.4	746.4	596.8	3,148.8	5,818.0
Delay	3.8	4.6	5.8	8.9	5.7	3.6	2.7	3.4	6.0	5.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	4.6	5.8	8.9	5.7	3.6	2.7	3.4	6.0	5.0
Mean Queue	0.2	0.3	0.5	0.8	0.4	0.2	0.2	0.2	0.5	0.4
Max Queue	3.9	3.6	4.6	5.6	3.5	3.4	3.4	2.8	4.3	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.3	0.5	0.8	0.4	0.2	0.2	0.2	0.5	0.4
Total Max Queue	3.9	3.6	4.6	5.6	3.5	3.4	3.4	2.8	4.3	3.9
Speed	35.9	34.5	32.7	27.6	33.4	35.3	37.4	36.3	32.2	33.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	641.2	544.4	613.6	575.6	492.8	531.2	476.4	489.6	2,213.2	4,364.8
Delay	5.5	5.2	5.4	3.3	3.7	3.2	3.8	3.5	3.9	4.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	5.2	5.4	3.3	3.7	3.2	3.8	3.5	3.9	4.2
Mean Queue	0.5	0.4	0.5	0.3	0.2	0.2	0.2	0.2	0.3	0.3
Max Queue	10.2	6.5	7.7	8.1	5.5	5.7	6.1	6.7	6.8	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.4	0.5	0.3	0.2	0.2	0.2	0.2	0.3	0.3
Total Max Queue	10.2	6.5	7.7	8.1	5.5	5.7	6.1	6.7	6.8	7.0
Speed	36.5	36.1	34.3	40.1	38.6	39.2	39.7	39.8	38.0	38.0

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	566.8	538.0	478.4	479.2	497.6	495.2	488.4	463.6	1,950.4	4,007.2
Delay	5.7	4.1	4.4	3.2	3.1	3.1	2.4	2.8	3.5	3.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	4.1	4.4	3.2	3.1	3.1	2.4	2.8	3.5	3.6
Mean Queue	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
Max Queue	2.4	2.4	2.1	2.0	2.0	2.0	1.6	1.8	2.0	2.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
Total Max Queue	2.4	2.4	2.1	2.0	2.0	2.0	1.6	1.8	2.0	2.0
Speed	30.6	33.5	33.4	36.2	35.9	35.7	38.1	37.1	35.3	35.1

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	546.8	558.0	533.2	598.0	544.4	550.4	546.0	548.4	2,226.0	4,425.2
Delay	5.2	4.1	3.7	4.1	4.0	3.8	3.5	3.1	3.9	3.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.2	4.1	3.7	4.1	4.0	3.8	3.5	3.1	3.9	3.9
Mean Queue	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Max Queue	4.5	3.9	3.2	4.8	3.6	3.9	4.0	3.1	3.9	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Total Max Queue	4.5	3.9	3.2	4.8	3.6	3.9	4.0	3.1	3.9	3.9
Speed	33.5	37.0	36.1	36.5	36.5	39.1	38.7	37.4	37.0	36.9

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	796.8	838.4	901.2	752.0	860.0	802.8	722.8	752.0	3,316.0	6,426.0
Delay	3.0	2.5	2.3	2.4	2.9	1.8	1.9	2.5	2.4	2.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.0	2.5	2.3	2.4	2.9	1.8	1.9	2.5	2.4	2.4
Mean Queue	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Max Queue	3.4	2.4	2.7	2.8	3.1	2.5	2.8	3.1	2.8	2.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.4	2.4	2.7	2.8	3.1	2.5	2.8	3.1	2.8	2.8
Speed	36.5	38.1	38.8	39.3	37.0	40.0	40.3	39.7	38.8	38.7

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	784.8	773.2	751.2	649.6	633.6	575.2	667.2	704.0	2,609.6	5,538.8
Delay	13.4	18.5	23.0	14.4	22.7	34.4	30.3	19.5	23.6	22.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	18.5	23.0	14.4	22.7	34.4	30.3	19.5	23.6	22.2
Mean Queue	1.8	2.7	3.3	1.7	2.9	4.4	4.0	2.7	3.1	3.0
Max Queue	12.4	13.5	13.8	10.8	11.1	11.1	10.4	10.9	11.7	11.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	2.7	3.3	1.7	2.9	4.4	4.0	2.7	3.1	3.0
Total Max Queue	12.4	13.5	13.8	10.8	11.1	11.1	10.4	10.9	11.7	11.7
Speed	27.6	25.4	25.4	28.7	24.2	22.0	22.6	26.4	25.1	25.2

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	514.8	463.6	494.8	562.0	415.6	423.6	327.6	384.0	1,896.0	3,586.0
Delay	17.4	18.0	16.8	15.2	16.2	22.7	30.0	24.0	17.7	19.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	18.0	16.8	15.2	16.2	22.7	30.0	24.0	17.7	19.8
Mean Queue	1.2	1.1	1.1	1.1	1.1	1.8	1.8	1.8	1.3	1.3
Max Queue	3.6	3.3	3.3	3.5	2.9	3.4	3.3	3.5	3.3	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.1	1.1	1.1	1.8	1.8	1.8	1.3	1.3
Total Max Queue	3.6	3.3	3.3	3.5	2.9	3.4	3.3	3.5	3.3	3.3
Speed	19.0	19.8	18.2	21.6	22.3	15.1	12.7	15.6	19.3	18.2

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	618.0	685.6	666.0	554.0	534.8	461.6	499.6	495.6	2,216.4	4,515.2
Delay	6.2	12.2	8.2	7.3	6.0	4.9	7.5	33.0	6.6	10.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	12.2	8.2	7.3	6.0	4.9	7.5	33.0	6.6	10.2
Mean Queue	0.4	1.4	0.8	0.6	3.2	9.1	9.4	12.5	3.4	4.5
Max Queue	7.7	13.7	9.2	7.4	13.9	12.2	16.0	25.5	10.7	12.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	1.4	0.8	0.6	3.2	9.1	9.4	12.5	3.4	4.5
Total Max Queue	7.7	13.7	9.2	7.4	13.9	12.2	16.0	25.5	10.7	12.9
Speed	32.6	34.0	35.4	33.0	34.8	38.2	36.4	30.8	35.4	34.5

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,066.4	1,136.8	1,152.4	1,086.0	1,077.6	981.6	959.2	809.2	4,297.6	8,269.2
Delay	3.9	4.8	4.7	3.5	3.9	4.6	5.0	4.1	4.2	4.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	4.8	4.7	3.5	3.9	4.6	5.0	4.1	4.2	4.3
Mean Queue	0.4	0.5	0.5	0.3	1.1	1.8	1.8	1.7	0.9	1.0
Max Queue	5.1	4.9	5.2	4.8	4.6	5.7	5.5	5.0	5.1	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.5	0.3	1.1	1.8	1.8	1.7	0.9	1.0
Total Max Queue	5.1	4.9	5.2	4.8	4.6	5.7	5.5	5.0	5.1	5.1
Speed	34.7	32.5	32.6	35.2	34.4	33.3	33.3	36.7	33.9	34.1

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	581.2	634.4	706.8	708.8	811.2	670.4	654.8	549.6	2,897.2	5,317.2
Delay	17.5	20.9	28.7	30.3	26.7	16.0	14.4	10.1	25.5	21.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	20.9	28.7	30.3	26.7	16.0	14.4	10.1	25.5	21.1
Mean Queue	2.0	2.6	4.3	4.8	4.1	2.2	1.4	0.9	3.9	2.9
Max Queue	11.4	12.3	13.6	13.7	14.1	13.0	10.4	8.6	13.6	12.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	2.6	4.3	4.8	4.1	2.2	1.4	0.9	3.9	2.9
Total Max Queue	11.4	12.3	13.6	13.7	14.1	13.0	10.4	8.6	13.6	12.3
Speed	31.0	29.7	26.0	26.0	29.1	31.9	30.1	34.5	28.3	29.6

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	543.6	616.8	518.4	506.4	522.4	692.8	609.2	735.2	2,240.0	4,744.8
Delay	20.3	19.3	25.3	27.8	29.2	18.9	23.2	16.4	25.3	22.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	19.3	25.3	27.8	29.2	18.9	23.2	16.4	25.3	22.9
Mean Queue	1.5	1.5	1.7	1.9	2.0	1.7	1.8	1.6	1.8	1.7
Max Queue	3.9	3.7	3.6	4.0	4.2	3.6	4.1	4.0	3.9	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.5	1.7	1.9	2.0	1.7	1.8	1.6	1.8	1.7
Total Max Queue	3.9	3.7	3.6	4.0	4.2	3.6	4.1	4.0	3.9	3.9
Speed	15.5	15.6	14.2	12.4	10.9	15.1	12.8	15.4	13.1	13.9

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	567.6	578.4	594.4	560.8	556.8	533.2	591.2	564.0	2,245.2	4,546.4
Delay	205.0	232.5	210.8	236.8	232.3	256.7	217.3	245.5	234.1	230.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	205.0	232.5	210.8	236.8	232.3	256.7	217.3	245.5	234.1	230.1
Mean Queue	30.2	30.4	29.4	30.4	30.1	31.3	29.6	31.5	30.3	30.3
Max Queue	45.1	44.9	45.3	45.2	45.2	45.2	44.7	46.1	45.2	45.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	30.2	30.4	29.4	30.4	30.1	31.3	29.6	31.5	30.3	30.3
Total Max Queue	45.1	44.9	45.3	45.2	45.2	45.2	44.7	46.1	45.2	45.2
Speed	9.1	9.8	8.7	8.6	9.2	7.9	8.5	7.8	8.6	8.7

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,039.6	1,095.2	1,221.2	1,211.6	1,166.8	1,061.2	1,122.8	1,031.6	4,660.8	8,950.0
Delay	6.2	6.7	7.4	6.8	7.1	7.6	7.9	7.5	7.2	7.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	6.7	7.4	6.8	7.1	7.6	7.9	7.5	7.2	7.2
Mean Queue	0.7	0.8	1.0	0.9	0.9	0.9	1.0	0.8	0.9	0.9
Max Queue	5.5	5.9	6.3	5.8	6.2	6.2	6.2	6.2	6.1	6.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.8	1.0	0.9	0.9	0.9	1.0	0.8	0.9	0.9
Total Max Queue	5.5	5.9	6.3	5.8	6.2	6.2	6.2	6.2	6.1	6.0
Speed	31.9	31.4	30.0	30.2	30.8	30.0	28.8	28.9	30.2	30.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	657.6	604.0	635.2	561.2	530.8	578.4	501.6	506.8	2,305.6	4,575.6
Delay	10.0	8.4	8.6	5.6	5.3	5.3	5.1	4.1	6.2	6.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	8.4	8.6	5.6	5.3	5.3	5.1	4.1	6.2	6.5
Mean Queue	1.1	0.7	0.9	0.4	0.4	0.4	0.4	0.2	0.5	0.6
Max Queue	12.3	8.1	10.8	8.3	6.7	7.5	7.0	6.2	8.3	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	0.7	0.9	0.4	0.4	0.4	0.4	0.2	0.5	0.6
Total Max Queue	12.3	8.1	10.8	8.3	6.7	7.5	7.0	6.2	8.3	8.4
Speed	32.5	31.6	32.9	36.0	36.4	35.7	36.9	37.4	35.3	35.0

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	541.6	520.0	495.2	494.4	487.2	520.8	466.0	473.6	1,997.6	3,998.8
Delay	9.1	8.3	7.9	5.1	6.4	5.1	4.9	5.5	6.1	6.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.1	8.3	7.9	5.1	6.4	5.1	4.9	5.5	6.1	6.5
Mean Queue	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.4
Max Queue	3.2	2.5	2.8	2.0	2.2	2.0	2.1	2.2	2.3	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.5	0.5	0.3	0.3	0.3	0.2	0.3	0.3	0.4
Total Max Queue	3.2	2.5	2.8	2.0	2.2	2.0	2.1	2.2	2.3	2.4
Speed	26.6	27.3	27.4	30.6	30.6	31.4	32.3	31.6	30.0	29.8

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	695.2	663.6	683.6	734.0	723.6	658.8	640.0	663.6	2,800.0	5,462.4
Delay	23.8	16.3	17.5	13.9	15.5	12.1	10.0	9.8	14.8	14.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	16.3	17.5	13.9	15.5	12.1	10.0	9.8	14.8	14.9
Mean Queue	2.4	1.4	1.4	1.2	1.2	0.8	0.6	0.7	1.1	1.2
Max Queue	20.6	13.4	11.7	12.9	12.6	7.8	7.5	8.3	11.3	11.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	1.4	1.4	1.2	1.2	0.8	0.6	0.7	1.1	1.2
Total Max Queue	20.6	13.4	11.7	12.9	12.6	7.8	7.5	8.3	11.3	11.8
Speed	19.1	21.9	20.2	20.7	21.4	20.5	25.5	24.2	20.7	21.6

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	923.2	1,018.4	1,040.8	922.4	980.4	915.6	905.6	937.6	3,859.2	7,644.0
Delay	6.1	4.7	4.5	4.5	4.8	4.3	2.8	3.6	4.5	4.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	4.7	4.5	4.5	4.8	4.3	2.8	3.6	4.5	4.4
Mean Queue	0.6	0.5	0.4	0.4	0.4	0.4	0.2	0.3	0.4	0.4
Max Queue	6.1	4.8	4.3	4.2	4.9	3.5	3.6	3.9	4.2	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.5	0.4	0.4	0.4	0.4	0.2	0.3	0.4	0.4
Total Max Queue	6.1	4.8	4.3	4.2	4.9	3.5	3.6	3.9	4.2	4.4
Speed	31.4	33.2	32.5	33.8	33.0	34.3	37.7	34.9	33.4	33.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	809.6	863.2	712.8	834.0	800.0	757.6	700.0	890.4	3,104.4	6,367.6
Delay	22.5	26.0	39.4	40.1	38.9	43.3	52.8	35.7	40.4	37.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	26.0	39.4	40.1	38.9	43.3	52.8	35.7	40.4	37.7
Mean Queue	3.5	4.5	6.3	6.8	6.8	7.2	8.0	6.9	6.8	6.3
Max Queue	13.8	13.9	14.1	14.2	13.9	14.2	14.0	14.1	14.1	14.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	4.5	6.3	6.8	6.8	7.2	8.0	6.9	6.8	6.3
Total Max Queue	13.8	13.9	14.1	14.2	13.9	14.2	14.0	14.1	14.1	14.0
Speed	24.7	24.9	21.6	21.8	20.9	19.6	20.6	21.3	21.0	21.8

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	451.2	506.4	458.8	409.2	395.6	458.8	486.8	381.6	1,722.4	3,548.4
Delay	26.4	23.1	26.5	35.4	39.7	32.1	28.4	37.0	33.4	31.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	23.1	26.5	35.4	39.7	32.1	28.4	37.0	33.4	31.3
Mean Queue	1.6	1.5	1.6	2.0	2.1	2.0	1.8	2.0	1.9	1.8
Max Queue	3.8	3.8	3.9	4.0	3.8	4.3	4.0	3.8	4.0	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.5	1.6	2.0	2.1	2.0	1.8	2.0	1.9	1.8
Total Max Queue	3.8	3.8	3.9	4.0	3.8	4.3	4.0	3.8	4.0	3.9
Speed	14.3	14.2	14.3	10.5	9.4	10.6	13.2	10.4	11.2	12.0

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	733.6	648.8	864.8	801.6	708.0	690.4	758.8	772.4	3,064.8	5,978.4
Delay	31.8	73.0	88.6	49.4	40.9	45.7	50.3	31.7	56.2	52.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	73.0	88.6	49.4	40.9	45.7	50.3	31.7	56.2	52.0
Mean Queue	4.4	13.8	13.5	6.9	6.4	6.3	7.3	3.9	8.2	7.9
Max Queue	23.2	38.3	36.7	30.0	28.0	28.6	31.3	22.7	30.8	30.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.4	13.8	13.5	6.9	6.4	6.3	7.3	3.9	8.2	7.9
Total Max Queue	23.2	38.3	36.7	30.0	28.0	28.6	31.3	22.7	30.8	30.0
Speed	22.6	17.6	22.9	21.8	23.6	23.8	22.7	22.6	23.0	22.3

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,256.8	1,196.8	1,247.2	1,270.4	1,364.4	1,351.2	1,351.2	1,249.6	5,233.2	10,287.6
Delay	7.1	7.1	9.0	6.7	5.1	6.0	8.5	5.8	6.7	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	7.1	9.0	6.7	5.1	6.0	8.5	5.8	6.7	6.9
Mean Queue	0.9	0.9	1.2	0.9	0.7	0.8	1.3	0.7	0.9	0.9
Max Queue	6.5	5.8	6.3	6.0	5.3	6.0	6.3	5.5	5.9	6.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	0.9	1.2	0.9	0.7	0.8	1.3	0.7	0.9	0.9
Total Max Queue	6.5	5.8	6.3	6.0	5.3	6.0	6.3	5.5	5.9	6.0
Speed	29.8	30.6	27.1	30.3	32.0	31.9	28.4	31.5	30.3	30.2

2030 Do Minimum

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	660.0	649.6	672.4	751.2	858.8	798.4	651.2	648.4	3,080.8	5,690.0
Delay	17.4	13.6	37.3	37.9	27.7	22.5	21.8	15.9	31.4	25.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	13.6	37.3	37.9	27.7	22.5	21.8	15.9	31.4	25.1
Mean Queue	2.2	1.6	5.5	6.1	5.0	3.5	2.8	2.0	5.0	3.7
Max Queue	12.8	10.2	13.6	14.1	13.9	12.5	12.1	12.6	13.5	12.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	1.6	5.5	6.1	5.0	3.5	2.8	2.0	5.0	3.7
Total Max Queue	12.8	10.2	13.6	14.1	13.9	12.5	12.1	12.6	13.5	12.8
Speed	28.6	32.2	24.2	25.1	27.3	29.4	29.9	32.3	26.5	28.4

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	511.2	611.6	502.4	596.0	476.0	538.8	632.4	718.4	2,113.2	4,586.8
Delay	26.8	23.4	27.0	25.8	33.6	26.5	22.5	19.8	28.2	26.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	23.4	27.0	25.8	33.6	26.5	22.5	19.8	28.2	26.0
Mean Queue	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.8	2.0	1.9
Max Queue	4.1	4.1	4.0	4.1	4.3	3.7	4.1	4.3	4.0	4.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.9	1.9	2.0	2.1	1.9	1.9	1.8	2.0	1.9
Total Max Queue	4.1	4.1	4.0	4.1	4.3	3.7	4.1	4.3	4.0	4.1
Speed	12.4	12.4	11.9	13.9	10.1	12.7	14.0	13.4	12.2	12.6

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	546.0	463.2	607.2	481.6	543.6	549.6	525.6	493.2	2,182.0	4,210.0
Delay	226.1	281.1	229.3	263.9	243.7	227.8	257.3	283.0	241.2	250.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	226.1	281.1	229.3	263.9	243.7	227.8	257.3	283.0	241.2	250.4
Mean Queue	30.5	32.5	29.5	31.8	31.0	29.8	31.7	32.6	30.5	31.1
Max Queue	45.7	45.1	45.2	45.1	45.5	44.8	45.3	45.8	45.2	45.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	30.5	32.5	29.5	31.8	31.0	29.8	31.7	32.6	30.5	31.1
Total Max Queue	45.7	45.1	45.2	45.1	45.5	44.8	45.3	45.8	45.2	45.3
Speed	9.5	7.4	8.8	8.6	9.2	8.7	8.7	7.4	8.8	8.6

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,040.8	1,124.4	1,208.4	1,206.4	1,175.2	1,153.2	1,190.8	1,087.6	4,743.2	9,186.8
Delay	7.3	6.5	9.3	7.2	8.1	6.5	9.6	7.5	7.8	7.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.3	6.5	9.3	7.2	8.1	6.5	9.6	7.5	7.8	7.8
Mean Queue	0.8	0.8	1.3	0.9	1.0	0.8	1.3	0.9	1.0	1.0
Max Queue	6.3	5.9	6.4	5.9	5.8	5.7	6.4	5.4	6.0	6.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.8	1.3	0.9	1.0	0.8	1.3	0.9	1.0	1.0
Total Max Queue	6.3	5.9	6.4	5.9	5.8	5.7	6.4	5.4	6.0	6.0
Speed	30.5	30.7	27.9	30.5	28.6	31.6	27.1	29.1	29.6	29.5

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	711.2	633.2	648.0	627.6	544.4	601.2	514.4	520.0	2,421.2	4,800.0
Delay	10.1	15.1	8.2	6.3	6.1	8.3	4.6	5.3	7.2	7.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	15.1	8.2	6.3	6.1	8.3	4.6	5.3	7.2	7.9
Mean Queue	1.3	1.7	0.8	0.6	0.4	0.8	0.3	0.4	0.7	0.8
Max Queue	13.1	11.7	9.3	8.9	6.6	8.7	7.0	7.7	8.4	9.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.7	0.8	0.6	0.4	0.8	0.3	0.4	0.7	0.8
Total Max Queue	13.1	11.7	9.3	8.9	6.6	8.7	7.0	7.7	8.4	9.0
Speed	32.3	30.5	32.8	34.9	34.2	32.9	37.9	36.6	33.7	34.0

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	560.4	560.0	486.4	497.2	484.0	496.0	503.6	462.4	1,963.6	4,050.0
Delay	9.9	9.6	10.4	5.4	6.3	8.4	5.9	4.0	7.6	7.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	9.6	10.4	5.4	6.3	8.4	5.9	4.0	7.6	7.5
Mean Queue	0.7	0.6	0.6	0.3	0.4	0.5	0.3	0.2	0.4	0.5
Max Queue	3.2	3.2	2.5	2.2	1.9	2.4	2.3	1.8	2.3	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.6	0.3	0.4	0.5	0.3	0.2	0.4	0.5
Total Max Queue	3.2	3.2	2.5	2.2	1.9	2.4	2.3	1.8	2.3	2.4
Speed	24.4	25.5	25.9	30.9	29.5	28.2	31.5	34.3	28.6	28.7

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	736.0	763.6	752.4	830.4	776.0	710.8	702.8	734.8	3,069.6	6,006.8
Delay	61.2	23.6	17.8	18.2	17.3	13.1	12.8	12.6	16.6	21.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	23.6	17.8	18.2	17.3	13.1	12.8	12.6	16.6	21.5
Mean Queue	9.0	2.7	1.8	1.9	1.6	1.0	0.9	1.1	1.6	2.4
Max Queue	29.1	18.4	15.5	17.5	14.2	12.1	10.6	11.1	14.8	15.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	9.0	2.7	1.8	1.9	1.6	1.0	0.9	1.1	1.6	2.4
Total Max Queue	29.1	18.4	15.5	17.5	14.2	12.1	10.6	11.1	14.8	15.9
Speed	17.1	20.8	20.3	20.1	21.0	21.9	23.2	23.0	20.8	20.9

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	934.4	1,016.4	1,035.6	902.4	1,030.4	955.2	915.2	918.4	3,923.6	7,708.0
Delay	6.1	7.1	5.6	5.5	5.3	4.0	3.6	4.0	5.1	5.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.1	7.1	5.6	5.5	5.3	4.0	3.6	4.0	5.1	5.2
Mean Queue	0.6	0.8	0.6	0.5	0.5	0.3	0.3	0.3	0.5	0.5
Max Queue	5.3	5.5	5.0	5.0	5.5	4.7	4.2	4.3	5.1	5.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.8	0.6	0.5	0.5	0.3	0.3	0.3	0.5	0.5
Total Max Queue	5.3	5.5	5.0	5.0	5.5	4.7	4.2	4.3	5.1	5.0
Speed	30.2	28.9	31.0	31.9	31.4	34.9	35.4	34.5	32.3	32.3

2030 Do Minimum

J-10 A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	726.4	807.6	789.2	784.0	780.0	717.2	750.8	760.8	3,070.4	6,116.0
Delay	43.3	42.6	42.7	43.9	44.6	51.7	48.1	46.1	45.7	45.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	42.6	42.7	43.9	44.6	51.7	48.1	46.1	45.7	45.4
Mean Queue	6.9	7.3	7.2	7.5	7.7	8.2	7.9	7.7	7.6	7.6
Max Queue	14.4	14.4	14.3	14.2	14.1	14.4	14.1	14.5	14.3	14.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.9	7.3	7.2	7.5	7.7	8.2	7.9	7.7	7.6	7.6
Total Max Queue	14.4	14.4	14.3	14.2	14.1	14.4	14.1	14.5	14.3	14.3
Speed	21.0	21.6	22.8	21.1	19.9	20.3	20.3	21.7	21.0	21.1

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	421.6	421.2	492.8	387.2	372.4	456.8	393.6	513.6	1,709.2	3,459.2
Delay	31.3	34.5	30.1	40.0	41.0	32.9	38.5	30.6	36.0	35.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	34.5	30.1	40.0	41.0	32.9	38.5	30.6	36.0	35.0
Mean Queue	1.9	1.9	2.0	2.2	2.1	2.0	2.0	2.1	2.1	2.0
Max Queue	3.7	3.9	4.0	4.1	4.1	4.0	3.6	4.4	4.1	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.9	2.0	2.2	2.1	2.0	2.0	2.1	2.1	2.0
Total Max Queue	3.7	3.9	4.0	4.1	4.1	4.0	3.6	4.4	4.1	4.0
Speed	11.3	11.9	10.9	9.4	9.0	10.6	10.1	10.0	10.0	10.4

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	830.4	872.4	727.6	902.4	807.6	779.6	820.0	922.0	3,217.2	6,662.0
Delay	49.3	41.1	100.5	62.9	56.9	58.5	58.3	78.0	69.7	63.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	41.1	100.5	62.9	56.9	58.5	58.3	78.0	69.7	63.9
Mean Queue	8.6	6.7	17.2	11.0	9.0	10.4	9.8	15.1	11.9	11.1
Max Queue	34.6	28.0	38.2	38.7	33.0	36.0	27.7	40.4	36.5	34.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.6	6.7	17.2	11.0	9.0	10.4	9.8	15.1	11.9	11.1
Total Max Queue	34.6	28.0	38.2	38.7	33.0	36.0	27.7	40.4	36.5	34.8
Speed	24.8	22.8	18.7	23.2	21.8	22.6	25.3	21.6	21.6	22.5

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,315.6	1,206.8	1,349.2	1,292.4	1,411.6	1,432.4	1,396.4	1,263.6	5,485.6	10,668.0
Delay	7.6	8.5	7.5	8.8	7.5	7.8	8.1	8.8	7.9	8.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	8.5	7.5	8.8	7.5	7.8	8.1	8.8	7.9	8.0
Mean Queue	1.1	1.1	1.1	1.3	1.1	1.2	1.2	1.2	1.2	1.2
Max Queue	6.7	6.5	6.2	6.7	6.4	6.8	6.6	6.5	6.5	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.1	1.1	1.3	1.1	1.2	1.2	1.2	1.2	1.2
Total Max Queue	6.7	6.5	6.2	6.7	6.4	6.8	6.6	6.5	6.5	6.5
Speed	29.5	28.6	29.0	28.1	29.5	28.7	28.2	27.5	28.8	28.7

2025 Do Something

J-10 J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	598.8	627.2	733.2	742.4	812.8	780.0	630.8	570.4	3,068.4	5,495.6
Delay	13.1	13.2	28.4	37.1	32.2	19.7	14.8	11.3	29.3	22.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	13.2	28.4	37.1	32.2	19.7	14.8	11.3	29.3	22.1
Mean Queue	1.4	1.5	4.7	6.0	5.3	3.0	1.6	1.1	4.7	3.3
Max Queue	11.1	10.0	14.0	13.6	13.9	12.9	12.1	9.5	13.6	12.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.5	4.7	6.0	5.3	3.0	1.6	1.1	4.7	3.3
Total Max Queue	11.1	10.0	14.0	13.6	13.9	12.9	12.1	9.5	13.6	12.3
Speed	31.6	31.3	25.0	26.5	27.3	30.6	30.1	32.4	27.3	29.1

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	575.2	625.2	504.8	527.2	552.4	611.2	701.2	679.2	2,195.6	4,776.4
Delay	22.1	18.9	29.7	28.9	27.4	22.9	19.7	17.9	27.2	23.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.1	18.9	29.7	28.9	27.4	22.9	19.7	17.9	27.2	23.8
Mean Queue	1.7	1.6	2.0	2.0	2.0	1.8	1.8	1.5	2.0	1.8
Max Queue	3.9	3.7	3.9	4.0	4.1	4.1	4.3	3.6	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.6	2.0	2.0	2.0	1.8	1.8	1.5	2.0	1.8
Total Max Queue	3.9	3.7	3.9	4.0	4.1	4.1	4.3	3.6	4.0	4.0
Speed	13.2	15.4	10.7	12.0	10.5	11.8	14.8	14.7	11.3	12.7

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	580.0	568.4	535.6	535.6	509.2	590.4	540.4	562.8	2,170.8	4,422.4
Delay	219.6	237.4	240.4	256.7	247.8	233.2	237.4	237.3	244.5	239.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	219.6	237.4	240.4	256.7	247.8	233.2	237.4	237.3	244.5	239.4
Mean Queue	29.7	30.5	31.3	30.9	31.4	30.1	30.9	30.4	30.9	30.7
Max Queue	45.7	44.9	45.1	45.7	45.6	45.6	45.5	45.6	45.5	45.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	29.7	30.5	31.3	30.9	31.4	30.1	30.9	30.4	30.9	30.7
Total Max Queue	45.7	44.9	45.1	45.7	45.6	45.6	45.5	45.6	45.5	45.5
Speed	7.8	8.1	9.5	8.6	7.6	6.9	8.2	7.4	8.2	8.0

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	963.6	1,070.8	1,224.4	1,212.8	1,202.0	1,114.8	1,120.0	1,004.8	4,754.0	8,913.2
Delay	6.2	7.7	6.8	6.8	6.7	6.4	7.7	5.8	6.7	6.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.2	7.7	6.8	6.8	6.7	6.4	7.7	5.8	6.7	6.8
Mean Queue	0.6	0.9	0.9	0.9	0.8	0.7	0.9	0.6	0.8	0.8
Max Queue	5.5	6.2	5.8	6.1	5.5	5.3	6.1	5.3	5.7	5.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.9	0.9	0.9	0.8	0.7	0.9	0.6	0.8	0.8
Total Max Queue	5.5	6.2	5.8	6.1	5.5	5.3	6.1	5.3	5.7	5.7
Speed	31.4	29.3	30.4	30.3	30.3	30.3	29.7	31.4	30.3	30.4

2025 Do Something

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	680.8	587.6	690.8	593.2	556.0	615.6	506.4	553.6	2,455.6	4,784.0
Delay	9.2	11.1	10.5	9.1	7.2	8.5	7.1	6.3	8.8	8.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	11.1	10.5	9.1	7.2	8.5	7.1	6.3	8.8	8.6
Mean Queue	1.0	1.1	1.3	1.0	0.5	1.0	0.4	0.6	0.9	0.9
Max Queue	12.5	10.9	11.6	9.8	7.5	9.5	7.6	8.2	9.6	9.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.1	1.3	1.0	0.5	1.0	0.4	0.6	0.9	0.9
Total Max Queue	12.5	10.9	11.6	9.8	7.5	9.5	7.6	8.2	9.6	9.7
Speed	32.1	32.1	31.4	33.7	35.0	34.4	36.2	35.4	33.6	33.8

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	557.2	543.2	464.0	507.6	464.8	500.4	482.4	468.8	1,936.8	3,988.4
Delay	12.5	10.9	12.7	8.6	7.1	7.3	4.9	6.0	8.9	8.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.5	10.9	12.7	8.6	7.1	7.3	4.9	6.0	8.9	8.8
Mean Queue	0.9	0.7	0.8	0.5	0.4	0.4	0.3	0.3	0.5	0.5
Max Queue	2.9	3.1	3.2	3.0	2.0	2.2	2.1	2.3	2.6	2.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	0.7	0.8	0.5	0.4	0.4	0.3	0.3	0.5	0.5
Total Max Queue	2.9	3.1	3.2	3.0	2.0	2.2	2.1	2.3	2.6	2.6
Speed	22.9	24.6	23.4	26.6	29.0	29.0	32.8	31.3	27.0	27.4

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	692.4	788.8	731.2	786.0	737.2	705.6	733.6	725.6	2,960.0	5,900.4
Delay	42.4	41.4	39.5	20.4	17.6	13.8	14.6	12.6	22.8	25.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	41.4	39.5	20.4	17.6	13.8	14.6	12.6	22.8	25.0
Mean Queue	6.0	6.0	5.0	2.4	1.7	1.2	1.2	1.0	2.6	3.0
Max Queue	27.6	22.3	25.5	16.3	13.2	11.8	13.9	10.0	16.7	17.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.0	6.0	5.0	2.4	1.7	1.2	1.2	1.0	2.6	3.0
Total Max Queue	27.6	22.3	25.5	16.3	13.2	11.8	13.9	10.0	16.7	17.5
Speed	17.4	20.5	18.9	21.0	21.4	21.3	22.5	22.3	20.7	20.7

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	972.8	1,011.6	1,075.2	974.0	1,053.2	1,004.4	907.6	906.4	4,106.8	7,905.2
Delay	5.4	8.7	6.4	6.1	5.0	5.1	4.1	3.5	5.7	5.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	8.7	6.4	6.1	5.0	5.1	4.1	3.5	5.7	5.6
Mean Queue	0.5	1.0	0.7	0.6	0.5	0.5	0.3	0.3	0.6	0.6
Max Queue	5.3	5.6	5.3	5.5	5.2	4.4	4.0	3.6	5.1	4.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	1.0	0.7	0.6	0.5	0.5	0.3	0.3	0.6	0.6
Total Max Queue	5.3	5.6	5.3	5.5	5.2	4.4	4.0	3.6	5.1	4.9
Speed	31.8	28.2	30.7	30.1	31.7	32.6	35.2	36.5	31.3	32.0

2025 Do Something

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	780.0	840.0	745.6	818.0	774.8	710.4	732.8	813.6	3,048.8	6,215.2
Delay	30.5	35.7	42.6	40.5	43.0	50.9	48.4	40.7	44.2	41.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	35.7	42.6	40.5	43.0	50.9	48.4	40.7	44.2	41.8
Mean Queue	5.1	6.2	6.9	7.3	7.3	7.9	7.6	7.3	7.4	7.0
Max Queue	14.3	14.3	14.4	14.2	14.1	14.0	14.0	14.1	14.2	14.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.1	6.2	6.9	7.3	7.3	7.9	7.6	7.3	7.4	7.0
Total Max Queue	14.3	14.3	14.4	14.2	14.1	14.0	14.0	14.1	14.2	14.2
Speed	23.5	23.8	21.7	21.9	21.4	18.5	20.5	22.3	20.9	21.6

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	476.4	468.0	449.2	416.8	439.2	420.0	433.6	448.4	1,725.2	3,551.6
Delay	23.9	27.5	30.3	35.2	34.4	36.6	38.2	30.6	34.1	32.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	27.5	30.3	35.2	34.4	36.6	38.2	30.6	34.1	32.3
Mean Queue	1.6	1.7	1.8	2.0	2.0	2.1	2.2	1.9	2.0	1.9
Max Queue	3.8	3.9	3.8	4.4	3.8	4.4	4.2	3.8	4.1	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	1.8	2.0	2.0	2.1	2.2	1.9	2.0	1.9
Total Max Queue	3.8	3.9	3.8	4.4	3.8	4.4	4.2	3.8	4.1	4.0
Speed	14.3	13.9	12.6	10.1	9.9	10.2	10.4	11.2	10.7	11.5

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	768.4	750.4	775.6	808.8	726.8	796.0	752.4	814.8	3,107.2	6,193.2
Delay	51.0	74.4	81.6	74.4	52.4	50.2	56.3	63.6	64.7	63.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	74.4	81.6	74.4	52.4	50.2	56.3	63.6	64.7	63.2
Mean Queue	7.9	13.6	13.6	11.2	8.8	7.7	8.7	10.4	10.3	10.3
Max Queue	35.7	40.2	34.9	37.6	28.2	30.2	32.7	35.9	32.7	34.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.9	13.6	13.6	11.2	8.8	7.7	8.7	10.4	10.3	10.3
Total Max Queue	35.7	40.2	34.9	37.6	28.2	30.2	32.7	35.9	32.7	34.2
Speed	21.5	20.9	21.4	23.8	22.0	24.6	23.8	24.0	23.0	22.8

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,265.6	1,231.6	1,322.0	1,309.6	1,422.4	1,447.2	1,412.0	1,206.4	5,501.2	10,616.8
Delay	7.4	7.9	7.7	7.1	5.7	7.5	6.9	7.1	7.0	7.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	7.9	7.7	7.1	5.7	7.5	6.9	7.1	7.0	7.2
Mean Queue	1.0	1.1	1.1	1.0	0.8	1.2	0.9	0.9	1.0	1.0
Max Queue	6.7	6.0	6.5	6.1	5.8	6.2	5.7	6.1	6.2	6.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.1	1.1	1.0	0.8	1.2	0.9	0.9	1.0	1.0
Total Max Queue	6.7	6.0	6.5	6.1	5.8	6.2	5.7	6.1	6.2	6.1
Speed	28.9	30.1	29.7	30.6	31.1	28.2	28.8	30.0	29.9	29.7

2030 Do Something

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	664.0	684.8	698.0	831.2	698.4	746.8	685.2	726.4	2,974.4	5,734.8
Delay	20.5	22.8	30.1	31.1	33.8	31.4	29.0	19.9	31.6	27.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	22.8	30.1	31.1	33.8	31.4	29.0	19.9	31.6	27.8
Mean Queue	2.7	3.1	4.5	5.3	5.2	5.2	4.1	2.9	5.1	4.2
Max Queue	12.1	13.0	13.7	13.3	12.9	14.0	12.6	13.1	13.5	13.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	3.1	4.5	5.3	5.2	5.2	4.1	2.9	5.1	4.2
Total Max Queue	12.1	13.0	13.7	13.3	12.9	14.0	12.6	13.1	13.5	13.1
Speed	29.9	29.2	24.7	27.4	29.5	29.9	31.3	34.0	27.9	29.3

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	535.2	526.8	424.4	470.4	598.4	547.2	636.8	688.8	2,040.4	4,428.0
Delay	22.2	26.5	34.7	34.3	24.2	27.6	22.2	20.1	30.2	26.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	26.5	34.7	34.3	24.2	27.6	22.2	20.1	30.2	26.9
Mean Queue	1.6	1.9	2.0	2.1	1.9	2.0	1.8	1.7	2.0	1.9
Max Queue	3.6	3.9	4.0	4.2	4.3	4.2	4.1	3.8	4.2	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.9	2.0	2.1	1.9	2.0	1.8	1.7	2.0	1.9
Total Max Queue	3.6	3.9	4.0	4.2	4.3	4.2	4.1	3.8	4.2	4.0
Speed	13.8	12.0	9.7	10.9	17.5	14.2	15.4	15.5	13.1	13.6

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	570.4	590.0	574.4	426.0	486.8	414.0	493.6	428.8	1,901.2	3,984.0
Delay	227.8	212.1	222.5	287.2	285.2	291.1	312.4	342.8	271.5	272.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	227.8	212.1	222.5	287.2	285.2	291.1	312.4	342.8	271.5	272.5
Mean Queue	30.6	29.6	30.1	33.1	32.3	34.5	32.1	33.6	32.5	32.1
Max Queue	46.2	44.8	45.3	45.4	45.1	45.8	45.3	45.1	45.4	45.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	30.6	29.6	30.1	33.1	32.3	34.5	32.1	33.6	32.5	32.1
Total Max Queue	46.2	44.8	45.3	45.4	45.1	45.8	45.3	45.1	45.4	45.4
Speed	8.8	11.3	11.8	9.7	8.7	11.8	10.8	6.8	10.5	10.0

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	970.8	1,156.4	1,259.2	1,223.2	942.4	936.8	931.2	919.2	4,361.6	8,339.2
Delay	6.7	8.3	8.6	8.1	15.4	18.5	18.3	19.3	12.6	12.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	8.3	8.6	8.1	15.4	18.5	18.3	19.3	12.6	12.9
Mean Queue	0.7	1.1	1.3	1.1	2.0	2.1	2.2	2.1	1.6	1.6
Max Queue	5.2	6.6	6.4	5.8	6.6	6.6	6.9	6.7	6.4	6.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	1.1	1.3	1.1	2.0	2.1	2.2	2.1	1.6	1.6
Total Max Queue	5.2	6.6	6.4	5.8	6.6	6.6	6.9	6.7	6.4	6.4
Speed	31.4	29.1	29.2	32.2	25.1	27.6	23.8	24.2	28.6	27.9

2030 Do Something

J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield

Arm Reference:	A
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	777.6	594.8	692.0	678.4	563.2	661.6	560.8	554.0	2,595.2	5,082.4
Delay	19.8	21.8	29.9	20.6	14.2	13.3	12.8	11.0	19.5	18.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	21.8	29.9	20.6	14.2	13.3	12.8	11.0	19.5	18.1
Mean Queue	2.9	2.9	4.1	2.7	1.5	1.5	1.3	1.2	2.5	2.3
Max Queue	13.9	13.5	13.0	13.3	11.3	11.1	10.7	10.1	12.2	12.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	2.9	4.1	2.7	1.5	1.5	1.3	1.2	2.5	2.3
Total Max Queue	13.9	13.5	13.0	13.3	11.3	11.1	10.7	10.1	12.2	12.1
Speed	28.0	27.7	27.3	28.2	32.5	30.6	35.3	37.4	29.6	30.7

Arm Reference:	B
Name	B1380 Normanby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	554.0	586.0	454.4	513.6	506.8	503.2	474.0	526.8	1,978.0	4,118.8
Delay	15.7	14.0	15.8	16.2	8.5	10.6	8.9	11.5	12.8	12.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	14.0	15.8	16.2	8.5	10.6	8.9	11.5	12.8	12.6
Mean Queue	1.1	1.0	0.9	1.0	0.5	0.7	0.5	0.8	0.8	0.8
Max Queue	3.8	3.4	3.1	3.1	2.5	2.4	2.6	3.0	2.8	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.0	0.9	1.0	0.5	0.7	0.5	0.8	0.8	0.8
Total Max Queue	3.8	3.4	3.1	3.1	2.5	2.4	2.6	3.0	2.8	3.0
Speed	19.8	22.2	22.4	20.8	28.9	25.5	29.7	27.3	24.4	24.5

Arm Reference:	C
Name	A171 Sunnyfield

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	786.8	945.2	857.2	888.8	804.8	855.2	736.0	702.0	3,406.0	6,576.0
Delay	71.9	70.7	35.3	54.7	52.6	71.3	92.3	130.4	53.5	70.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.9	70.7	35.3	54.7	52.6	71.3	92.3	130.4	53.5	70.3
Mean Queue	11.7	13.4	5.6	9.4	8.7	12.5	17.2	22.2	9.1	12.2
Max Queue	34.8	39.3	27.6	31.6	28.7	34.7	39.8	42.8	30.7	34.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.7	13.4	5.6	9.4	8.7	12.5	17.2	22.2	9.1	12.2
Total Max Queue	34.8	39.3	27.6	31.6	28.7	34.7	39.8	42.8	30.7	34.4
Speed	16.9	19.0	21.1	18.0	21.0	17.5	19.3	17.8	19.4	18.9

Arm Reference:	D
Name	B1380 High Street

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	973.2	1,059.2	1,124.4	1,020.4	906.8	856.4	730.0	656.8	3,908.0	7,327.2
Delay	9.6	13.2	10.0	7.6	13.6	22.1	25.4	33.6	13.3	16.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.6	13.2	10.0	7.6	13.6	22.1	25.4	33.6	13.3	16.5
Mean Queue	1.1	1.7	1.2	0.8	1.8	2.2	2.6	2.9	1.5	1.8
Max Queue	6.2	6.7	6.3	5.6	6.5	6.7	6.4	6.4	6.3	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.7	1.2	0.8	1.8	2.2	2.6	2.9	1.5	1.8
Total Max Queue	6.2	6.7	6.3	5.6	6.5	6.7	6.4	6.4	6.3	6.3
Speed	26.7	22.5	25.6	29.2	25.3	21.5	22.4	18.1	25.4	24.1

2030 Do Something

J-10 **J-10: A171 Cargo Fleet Lane / B1380 High Street / A171 Sunnyfield**

Arm Reference:	A
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	710.8	807.2	724.8	700.4	692.4	698.8	707.6	559.2	2,816.4	5,601.2
Delay	50.1	43.0	47.5	51.4	51.8	53.8	54.8	65.9	51.1	52.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.1	43.0	47.5	51.4	51.8	53.8	54.8	65.9	51.1	52.2
Mean Queue	8.1	7.5	7.7	8.1	8.0	8.2	8.4	8.9	8.0	8.1
Max Queue	14.3	14.4	14.1	14.1	14.3	14.2	14.2	14.1	14.2	14.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.1	7.5	7.7	8.1	8.0	8.2	8.4	8.9	8.0	8.1
Total Max Queue	14.3	14.4	14.1	14.1	14.3	14.2	14.2	14.1	14.2	14.2
Speed	20.5	23.0	22.3	22.4	20.3	21.2	20.2	18.8	21.6	21.2

Arm Reference:	B
Name	B1380 Normanby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	413.6	477.6	494.4	476.0	454.4	426.0	400.8	510.4	1,850.8	3,653.2
Delay	31.5	30.3	28.3	32.3	32.5	34.3	37.2	29.4	31.9	32.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	30.3	28.3	32.3	32.5	34.3	37.2	29.4	31.9	32.0
Mean Queue	1.9	1.8	1.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Max Queue	4.3	4.1	3.7	4.0	4.1	3.7	4.1	3.8	3.9	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.8	1.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0
Total Max Queue	4.3	4.1	3.7	4.0	4.1	3.7	4.1	3.8	3.9	4.0
Speed	13.1	13.1	11.8	9.4	10.4	11.7	10.0	12.1	10.8	11.4

Arm Reference:	C
Name	A171 Sunnyfield

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	855.6	825.6	941.2	837.2	870.8	914.8	912.0	840.8	3,564.0	6,998.0
Delay	30.4	52.4	75.1	79.4	77.4	69.4	63.0	100.0	75.3	69.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.4	52.4	75.1	79.4	77.4	69.4	63.0	100.0	75.3	69.1
Mean Queue	4.8	10.7	13.3	15.1	14.2	12.6	12.6	18.2	13.8	12.8
Max Queue	30.5	39.7	40.3	41.9	43.1	37.2	38.2	37.8	40.6	38.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.8	10.7	13.3	15.1	14.2	12.6	12.6	18.2	13.8	12.8
Total Max Queue	30.5	39.7	40.3	41.9	43.1	37.2	38.2	37.8	40.6	38.8
Speed	23.6	21.3	23.0	22.7	20.8	22.3	21.0	23.2	22.2	22.2

Arm Reference:	D
Name	B1380 High Street

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,364.4	1,220.8	1,185.6	1,338.0	1,374.0	1,374.8	1,362.0	1,428.4	5,272.4	10,648.0
Delay	8.5	9.8	11.4	10.0	10.2	10.2	10.7	9.7	10.5	10.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	9.8	11.4	10.0	10.2	10.2	10.7	9.7	10.5	10.1
Mean Queue	1.2	1.3	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5
Max Queue	6.9	6.3	6.6	7.1	6.4	6.8	6.8	6.5	6.7	6.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.3	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5
Total Max Queue	6.9	6.3	6.6	7.1	6.4	6.8	6.8	6.5	6.7	6.7
Speed	27.1	26.7	24.9	26.2	25.1	25.3	24.6	27.3	25.4	25.8

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-11 A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	435.6	396.0	492.4	366.4	359.2	413.2	426.8	434.8	1,631.2	3,324.4
Delay	33.0	31.2	39.5	55.0	82.7	79.5	57.7	38.1	64.2	53.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	31.2	39.5	55.0	82.7	79.5	57.7	38.1	64.2	53.4
Mean Queue	2.0	1.7	2.9	3.9	6.4	6.9	4.7	3.6	5.0	4.1
Max Queue	11.1	10.6	13.3	12.7	13.6	15.9	13.9	12.0	13.9	13.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	1.7	2.9	3.9	6.4	6.9	4.7	3.6	5.0	4.1
Total Max Queue	11.1	10.6	13.3	12.7	13.6	15.9	13.9	12.0	13.9	13.0
Speed	21.0	21.0	21.3	17.8	18.2	18.1	20.0	18.6	18.8	19.4

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	356.4	498.4	537.2	681.2	559.6	473.6	456.0	516.8	2,251.6	4,079.2
Delay	34.7	36.8	38.2	37.0	38.5	38.1	39.5	39.8	38.0	37.8
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	34.8	36.9	38.3	37.1	38.6	38.2	39.6	39.9	38.1	37.9
Mean Queue	1.0	1.6	1.7	2.1	1.8	1.6	1.8	2.3	1.8	1.7
Max Queue	4.4	5.7	5.8	7.0	6.0	5.3	6.0	6.3	6.0	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.2	1.7	1.7	1.5	1.5	1.5	1.4	1.6	1.5
Total Mean Queue	1.0	1.6	1.7	2.1	1.8	1.6	1.8	2.3	1.8	1.8
Total Max Queue	5.6	6.9	7.5	8.7	7.5	6.8	7.5	7.7	7.6	7.3
Speed	23.0	21.3	20.2	20.2	20.8	20.6	20.3	20.5	20.4	20.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	794.8	815.6	845.2	825.6	838.0	773.6	746.0	704.4	3,282.4	6,343.2
Delay	59.3	61.3	61.0	61.1	58.0	57.1	50.9	45.3	59.3	57.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.3	61.3	61.0	61.1	58.0	57.1	50.9	45.3	59.3	57.0
Mean Queue	9.3	9.4	9.4	9.7	8.7	9.2	8.3	7.6	9.2	9.0
Max Queue	21.9	21.7	22.0	22.2	22.3	21.0	21.1	21.1	21.9	21.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	9.3	9.4	9.4	9.7	8.7	9.2	8.3	7.6	9.2	9.0
Total Max Queue	21.9	21.7	22.0	22.2	22.3	21.0	21.1	21.1	21.9	21.7
Speed	18.8	18.9	17.8	18.7	18.9	19.4	18.4	19.1	18.7	18.7

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	372.4	554.4	461.2	494.8	540.8	468.8	421.2	438.4	1,965.6	3,752.0
Delay	46.9	52.2	51.4	47.7	63.8	62.0	51.5	46.7	56.2	53.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	52.2	51.4	47.7	63.8	62.0	51.5	46.8	56.2	53.2
Mean Queue	1.5	2.5	2.0	1.9	3.1	2.5	4.9	8.6	2.4	3.3
Max Queue	5.4	7.0	6.2	6.1	8.2	6.7	10.7	14.0	6.8	7.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Max Virtual Queue	0.6	1.0	0.7	0.8	1.0	0.7	0.7	2.7	0.8	1.0
Total Mean Queue	1.5	2.5	2.0	1.9	3.1	2.5	4.9	8.8	2.4	3.3
Total Max Queue	6.0	8.0	6.9	6.9	9.2	7.4	11.4	16.7	7.6	8.9
Speed	35.7	33.8	33.5	35.2	29.8	32.3	33.3	35.5	32.7	33.5

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	706.8	703.2	608.8	635.6	638.8	565.2	610.0	588.0	2,448.4	5,056.4
Delay	42.2	38.1	36.4	30.1	31.4	28.4	31.6	28.4	31.6	33.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.2	38.1	36.4	30.1	31.4	28.4	31.6	28.4	31.6	33.1
Mean Queue	4.9	4.2	3.3	2.6	2.9	2.1	2.7	2.4	2.7	3.1
Max Queue	19.5	18.1	15.2	15.1	14.9	13.6	14.8	13.7	14.7	15.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.9	4.2	3.3	2.6	2.9	2.1	2.7	2.4	2.7	3.1
Total Max Queue	19.5	18.1	15.2	15.1	14.9	13.6	14.8	13.7	14.7	15.5
Speed	23.0	23.1	21.0	21.4	21.5	21.6	20.1	22.1	21.4	21.7

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	528.8	480.4	578.4	526.4	557.6	562.4	519.6	570.0	2,224.8	4,323.6
Delay	44.3	44.7	43.6	42.5	47.8	47.1	42.7	42.3	45.3	44.5
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	44.4	44.8	43.8	42.6	47.9	47.3	42.8	42.4	45.4	44.6
Mean Queue	2.0	1.8	2.1	1.9	2.2	2.2	1.8	2.0	2.1	2.0
Max Queue	6.1	5.7	6.2	5.4	6.8	6.3	5.9	6.3	6.2	6.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.5	1.5	1.7	1.7	1.7	1.7	1.4	1.8	1.7	1.6
Total Mean Queue	2.0	1.8	2.2	1.9	2.2	2.3	1.8	2.0	2.1	2.0
Total Max Queue	7.6	7.2	7.9	7.1	8.5	8.0	7.3	8.1	7.9	7.7
Speed	14.6	15.0	14.9	15.7	13.4	13.6	15.7	15.4	14.4	14.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	656.0	620.4	738.4	696.8	683.6	687.2	693.6	614.4	2,806.0	5,390.4
Delay	26.0	24.5	25.4	25.3	26.6	25.8	24.7	24.5	25.8	25.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	24.5	25.4	25.3	26.6	25.8	24.7	24.5	25.8	25.4
Mean Queue	2.4	2.1	2.6	2.5	2.5	2.5	2.3	2.0	2.5	2.4
Max Queue	16.8	15.0	17.3	16.3	15.8	16.4	17.2	14.9	16.5	16.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.1	2.6	2.5	2.5	2.5	2.3	2.0	2.5	2.4
Total Max Queue	16.8	15.0	17.3	16.3	15.8	16.4	17.2	14.9	16.5	16.2
Speed	22.1	22.7	23.7	22.8	23.5	22.9	22.6	21.0	23.2	22.7

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	569.2	698.4	596.4	648.8	657.2	645.2	632.0	621.2	2,547.6	5,068.4
Delay	40.7	39.3	38.5	39.5	40.5	38.0	38.3	37.4	39.1	39.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	39.3	38.5	39.5	40.5	38.0	38.3	37.5	39.2	39.1
Mean Queue	2.0	2.2	1.9	2.2	2.2	2.0	2.1	1.9	2.1	2.0
Max Queue	6.6	6.9	5.9	6.6	6.9	6.7	6.8	6.2	6.5	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.2	0.9	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Total Mean Queue	2.0	2.2	1.9	2.2	2.2	2.0	2.1	1.9	2.1	2.0
Total Max Queue	7.6	8.1	6.8	7.7	8.0	7.8	8.0	7.3	7.6	7.7
Speed	37.7	38.6	38.8	38.2	37.9	39.2	38.9	39.5	38.5	38.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-11 A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	696.8	680.0	666.0	646.4	603.6	602.4	587.6	606.0	2,518.4	5,088.8
Delay	59.1	87.7	85.1	83.0	82.4	75.7	80.7	76.0	81.6	79.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	87.7	85.1	83.0	82.4	75.7	80.7	76.0	81.6	79.0
Mean Queue	6.7	10.4	11.3	11.9	12.1	11.5	12.0	11.1	11.7	11.0
Max Queue	19.8	20.4	20.4	19.9	19.8	19.5	19.1	19.5	19.9	19.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.7	10.4	11.3	11.9	12.1	11.5	12.0	11.1	11.7	11.0
Total Max Queue	19.8	20.4	20.4	19.9	19.8	19.5	19.1	19.5	19.9	19.8
Speed	15.2	14.2	15.5	15.6	15.8	16.8	16.8	16.2	15.9	15.8

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	585.2	541.6	572.0	509.2	478.4	457.6	432.8	409.6	2,017.2	3,986.4
Delay	45.0	42.7	45.7	52.3	47.1	45.6	46.5	43.4	47.7	46.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	45.1	42.8	45.9	52.5	47.3	45.7	46.6	43.5	47.8	46.4
Mean Queue	2.2	1.9	3.8	9.1	14.1	16.1	16.2	15.9	10.8	10.0
Max Queue	7.2	6.0	13.1	13.4	20.1	19.6	19.8	18.8	16.6	15.0
Mean Virtual Queue	0.0	0.0	0.0	6.7	22.2	46.5	72.3	96.5	18.9	29.2
Max Virtual Queue	1.5	1.4	1.6	15.4	36.3	60.6	86.5	109.4	28.5	37.9
Total Mean Queue	2.2	1.9	3.9	15.9	36.3	62.6	88.4	112.3	29.6	39.2
Total Max Queue	8.7	7.4	14.7	28.8	56.4	80.2	106.3	128.2	45.0	52.9
Speed	14.9	16.4	14.5	15.2	14.4	15.5	14.3	16.2	14.9	15.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	674.8	747.2	623.2	533.6	503.2	468.0	515.2	554.0	2,128.0	4,619.2
Delay	25.8	25.7	21.5	24.5	21.9	22.4	22.6	27.1	22.6	23.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	25.7	21.5	24.5	21.9	22.4	22.6	27.1	22.6	23.8
Mean Queue	2.6	3.0	1.9	2.0	1.5	1.5	1.6	2.4	1.7	2.0
Max Queue	19.0	17.9	16.4	14.2	12.9	10.2	12.4	14.3	13.4	14.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	3.0	1.9	2.0	1.5	1.5	1.6	2.4	1.7	2.0
Total Max Queue	19.0	17.9	16.4	14.2	12.9	10.2	12.4	14.3	13.4	14.5
Speed	27.6	29.0	28.4	27.7	27.5	25.8	25.6	26.8	27.3	27.3

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	619.6	605.2	592.8	553.6	522.0	491.6	474.8	409.6	2,160.0	4,269.2
Delay	42.0	45.9	42.6	44.9	47.4	43.6	42.8	42.8	44.6	44.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.0	45.9	42.6	44.9	47.4	43.6	42.8	42.8	44.7	44.1
Mean Queue	2.2	2.4	2.3	3.5	8.2	13.5	18.1	18.7	6.9	8.4
Max Queue	7.4	7.5	6.6	8.5	15.3	19.7	22.8	22.2	12.5	13.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	5.1	19.6	44.8	1.3	7.9
Max Virtual Queue	1.1	1.1	1.0	1.1	1.0	11.9	33.3	58.1	3.8	12.5
Total Mean Queue	2.2	2.4	2.3	3.5	8.2	18.6	37.8	63.5	8.1	16.3
Total Max Queue	8.5	8.6	7.6	9.6	16.3	31.6	56.1	80.3	16.3	26.1
Speed	37.2	35.6	37.1	36.0	35.9	37.0	36.8	37.3	36.5	36.6

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-11 A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	385.2	435.2	457.6	404.0	423.2	426.0	442.0	433.6	1,710.8	3,406.8
Delay	27.0	32.9	35.8	52.4	37.0	36.4	36.3	31.9	40.4	36.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.0	32.9	35.8	52.4	37.0	36.4	36.3	31.9	40.4	36.7
Mean Queue	1.4	2.1	2.6	3.2	2.1	2.3	2.2	2.1	2.6	2.3
Max Queue	11.4	8.4	12.4	10.4	10.4	10.0	11.1	10.4	10.8	10.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	2.1	2.6	3.2	2.1	2.3	2.2	2.1	2.6	2.3
Total Max Queue	11.4	8.4	12.4	10.4	10.4	10.0	11.1	10.4	10.8	10.6
Speed	22.6	25.1	20.9	20.1	19.1	21.0	22.0	22.4	20.3	21.5

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	514.8	622.8	628.0	761.6	651.2	561.2	554.0	571.2	2,602.0	4,864.8
Delay	33.8	35.4	35.4	37.5	35.2	35.9	35.4	35.2	36.0	35.5
Delay Virtual Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	33.9	35.5	35.5	37.6	35.3	36.0	35.5	35.3	36.1	35.6
Mean Queue	1.4	1.9	1.8	2.3	1.9	1.7	1.6	1.7	1.9	1.8
Max Queue	6.1	6.8	6.3	8.4	7.1	5.8	6.2	6.1	6.9	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.8	1.5	1.8	1.8	1.5	1.6	1.8	1.7	1.6
Total Mean Queue	1.4	1.9	1.8	2.4	1.9	1.7	1.6	1.7	1.9	1.8
Total Max Queue	7.3	8.6	7.8	10.2	8.9	7.3	7.8	7.9	8.6	8.3
Speed	20.8	20.2	20.4	18.4	20.6	20.8	20.8	20.5	20.0	20.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	817.6	823.6	788.0	825.2	746.0	839.2	816.0	758.4	3,198.4	6,414.0
Delay	46.7	48.0	43.7	38.1	38.5	40.1	38.9	35.9	40.1	41.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.7	48.0	43.7	38.1	38.5	40.1	38.9	35.9	40.1	41.1
Mean Queue	7.1	6.6	5.7	4.8	4.5	5.5	5.0	4.2	5.1	5.4
Max Queue	22.4	21.7	21.3	20.8	19.6	21.1	21.3	21.0	20.7	21.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.1	6.6	5.7	4.8	4.5	5.5	5.0	4.2	5.1	5.4
Total Max Queue	22.4	21.7	21.3	20.8	19.6	21.1	21.3	21.0	20.7	21.1
Speed	20.2	19.2	17.9	20.0	18.4	20.1	19.6	18.2	19.1	19.2

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	502.0	671.2	668.8	626.8	635.6	641.6	618.0	644.0	2,572.8	5,008.0
Delay	49.4	85.9	98.8	69.5	88.7	97.1	91.6	105.1	88.5	86.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	86.0	98.8	69.5	88.7	97.1	91.6	105.1	88.6	86.1
Mean Queue	2.1	5.4	5.3	3.6	5.1	5.5	5.5	5.1	4.9	4.7
Max Queue	6.4	11.9	11.6	9.4	11.2	11.5	10.6	10.1	10.9	10.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	1.3	1.2	1.0	1.3	1.0	0.9	0.9	1.1	1.1
Total Mean Queue	2.1	5.4	5.3	3.6	5.1	5.5	5.5	5.1	4.9	4.7
Total Max Queue	7.2	13.2	12.8	10.4	12.5	12.5	11.5	11.0	12.1	11.5
Speed	34.7	25.2	24.1	29.0	25.4	24.8	27.5	28.2	25.8	27.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-11 J-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	656.8	658.4	532.4	584.4	595.2	563.6	574.0	561.2	2,275.6	4,726.0
Delay	32.2	33.4	41.7	46.6	43.5	40.6	33.7	26.3	43.1	37.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	33.4	41.7	46.6	43.5	40.6	33.7	26.3	43.1	37.9
Mean Queue	3.0	3.2	3.7	4.2	4.1	3.2	2.8	2.0	3.8	3.3
Max Queue	17.0	16.3	14.6	16.7	15.2	14.9	15.2	13.3	15.4	15.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	3.2	3.7	4.2	4.1	3.2	2.8	2.0	3.8	3.3
Total Max Queue	17.0	16.3	14.6	16.7	15.2	14.9	15.2	13.3	15.4	15.4
Speed	21.2	21.3	20.3	20.8	19.6	20.1	21.8	21.5	20.2	20.7

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	522.8	525.2	588.0	544.0	558.8	570.0	556.8	588.8	2,260.8	4,454.4
Delay	44.2	46.1	48.0	45.4	42.7	44.4	45.7	42.3	45.1	44.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	44.3	46.2	48.2	45.5	42.8	44.5	45.8	42.5	45.2	45.0
Mean Queue	1.9	2.1	2.4	2.1	2.0	2.1	2.1	2.1	2.1	2.1
Max Queue	6.0	6.4	6.4	5.9	6.0	5.8	6.5	6.5	6.0	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.5	1.7	1.7	1.7	1.5	1.7	1.7	1.8	1.7	1.7
Total Mean Queue	1.9	2.1	2.4	2.1	2.0	2.1	2.1	2.1	2.2	2.1
Total Max Queue	7.5	8.1	8.1	7.6	7.5	7.5	8.2	8.3	7.7	7.8
Speed	14.8	15.0	12.9	14.4	15.6	14.5	13.7	14.9	14.3	14.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	807.2	813.6	882.8	836.4	834.0	864.0	815.6	786.8	3,417.2	6,640.4
Delay	25.5	26.9	28.7	26.3	25.9	30.5	25.2	23.9	27.9	26.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.5	26.9	28.7	26.3	25.9	30.5	25.2	23.9	27.9	26.8
Mean Queue	3.1	3.3	4.1	3.3	3.2	4.3	3.0	2.9	3.7	3.4
Max Queue	19.5	19.1	20.5	19.1	19.9	21.0	18.6	18.9	20.1	19.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	3.3	4.1	3.3	3.2	4.3	3.0	2.9	3.7	3.4
Total Max Queue	19.5	19.1	20.5	19.1	19.9	21.0	18.6	18.9	20.1	19.6
Speed	25.3	25.5	27.4	25.7	26.5	25.9	26.9	26.2	26.4	26.2

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	509.6	561.2	552.0	583.6	516.8	592.4	569.2	530.8	2,244.8	4,415.6
Delay	39.1	40.4	39.8	39.5	40.3	39.7	39.7	39.3	39.8	39.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	40.4	39.8	39.5	40.3	39.8	39.7	39.3	39.9	39.8
Mean Queue	1.7	1.9	1.8	1.9	1.8	1.9	1.9	1.8	1.9	1.8
Max Queue	5.8	6.2	5.9	5.6	5.8	6.4	6.1	5.7	5.9	5.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	1.0	1.0	1.0	1.0	1.0	0.8	0.9	1.0	0.9
Total Mean Queue	1.7	1.9	1.8	1.9	1.8	1.9	1.9	1.8	1.9	1.8
Total Max Queue	6.4	7.2	6.9	6.6	6.8	7.4	6.9	6.6	6.9	6.9
Speed	38.7	38.0	38.4	38.7	38.2	38.2	38.6	38.7	38.4	38.4

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-11 J-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name:	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	649.2	671.2	721.2	682.0	693.2	740.8	725.6	702.0	2,837.2	5,585.2
Delay	84.0	95.6	94.2	91.8	86.1	89.8	84.1	83.4	90.5	88.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	84.0	95.6	94.2	91.8	86.1	89.8	84.1	83.4	90.5	88.8
Mean Queue	10.3	11.3	11.7	11.7	11.0	11.3	11.1	11.1	11.4	11.2
Max Queue	20.8	20.7	20.9	20.5	20.1	20.5	20.1	20.4	20.5	20.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	10.3	11.3	11.7	11.7	11.0	11.3	11.1	11.1	11.4	11.2
Total Max Queue	20.8	20.7	20.9	20.5	20.1	20.5	20.1	20.4	20.5	20.5
Speed	14.3	14.5	14.5	14.8	15.7	15.5	16.1	15.7	15.1	15.1

Arm Reference:	B
Name:	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	616.0	544.4	635.6	612.0	602.0	571.6	638.8	540.0	2,421.2	4,760.4
Delay	49.1	47.0	50.5	45.5	47.9	48.7	49.1	45.3	48.1	47.9
Delay Virtual Queue	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	49.2	47.2	50.6	45.7	48.0	48.8	49.3	45.4	48.3	48.1
Mean Queue	2.5	2.3	2.7	2.2	2.5	2.3	2.6	2.0	2.4	2.4
Max Queue	7.6	6.6	8.1	6.9	7.1	7.1	8.0	5.9	7.3	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.7	1.9	1.8	1.7	1.8	1.7	1.5	1.8	1.7
Total Mean Queue	2.5	2.3	2.7	2.2	2.6	2.3	2.6	2.0	2.5	2.4
Total Max Queue	8.9	8.3	10.0	8.7	8.8	8.9	9.7	7.4	9.1	8.9
Speed	13.5	15.2	13.4	14.5	13.2	14.1	13.5	15.7	13.8	14.1

Arm Reference:	C
Name:	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	750.4	734.0	782.4	734.4	668.8	678.4	668.4	757.6	2,864.0	5,774.4
Delay	27.5	41.1	32.2	30.5	27.1	25.2	25.8	27.7	28.8	29.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	41.1	32.2	30.5	27.1	25.2	25.8	27.7	28.8	29.5
Mean Queue	3.7	5.5	4.1	3.9	2.9	2.6	2.6	3.5	3.4	3.6
Max Queue	20.6	20.8	19.6	19.5	18.7	17.6	18.6	20.3	18.9	19.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	5.5	4.1	3.9	2.9	2.6	2.6	3.5	3.4	3.6
Total Max Queue	20.6	20.8	19.6	19.5	18.7	17.6	18.6	20.3	18.9	19.4
Speed	30.2	28.7	30.8	29.8	28.4	29.6	27.6	29.3	29.6	29.3

Arm Reference:	D
Name:	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	751.2	752.4	718.8	736.0	778.8	714.0	752.4	688.0	2,947.6	5,891.6
Delay	43.3	46.0	43.5	42.2	44.4	43.9	42.9	43.5	43.5	43.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	46.0	43.5	42.2	44.4	43.9	43.0	43.5	43.5	43.7
Mean Queue	2.7	2.8	2.7	2.5	2.8	2.7	2.6	2.5	2.7	2.7
Max Queue	9.1	8.5	8.3	7.9	8.3	7.8	8.1	7.9	8.1	8.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1
Total Mean Queue	2.7	2.8	2.7	2.5	2.8	2.7	2.6	2.5	2.7	2.7
Total Max Queue	10.3	9.5	9.3	9.0	9.4	8.8	9.2	9.0	9.1	9.3
Speed	37.0	36.2	37.3	37.5	36.3	36.6	37.0	37.1	36.9	36.9

2030 Do Minimum

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	421.6	462.8	460.4	447.6	450.4	470.8	451.6	477.6	1,829.2	3,642.8
Delay	28.0	24.7	33.7	40.4	32.3	36.2	33.4	31.0	35.7	32.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	24.7	33.7	40.4	32.3	36.2	33.4	31.0	35.7	32.8
Mean Queue	1.7	1.5	2.2	2.6	2.0	2.5	1.9	2.0	2.3	2.1
Max Queue	10.8	9.0	11.7	12.5	10.3	12.4	11.1	10.9	11.7	11.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.5	2.2	2.6	2.0	2.5	1.9	2.0	2.3	2.1
Total Max Queue	10.8	9.0	11.7	12.5	10.3	12.4	11.1	10.9	11.7	11.2
Speed	24.7	26.2	22.5	18.6	19.7	20.8	21.7	22.3	20.4	21.9

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	552.4	642.0	688.8	799.2	737.6	624.8	561.6	610.4	2,850.4	5,216.8
Delay	32.1	34.7	35.3	36.7	36.8	35.6	34.1	39.9	36.1	35.7
Delay Virtual Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	32.2	34.9	35.4	36.9	36.9	35.7	34.2	40.0	36.2	35.8
Mean Queue	1.4	1.9	2.0	2.3	2.2	1.8	1.6	2.2	2.1	1.9
Max Queue	6.0	7.3	6.7	7.7	7.3	6.6	6.5	10.1	7.1	7.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.8	1.4	2.1	1.7	1.4	1.2	1.3	1.7	1.5
Total Mean Queue	1.4	1.9	2.0	2.4	2.2	1.9	1.6	2.2	2.1	2.0
Total Max Queue	7.2	9.1	8.1	9.8	9.0	8.0	7.7	11.4	8.7	8.8
Speed	22.6	21.0	21.6	20.1	20.3	20.6	23.5	20.9	20.6	21.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	820.0	820.4	824.4	828.4	786.0	890.8	806.4	783.6	3,329.6	6,560.0
Delay	43.5	42.3	40.7	41.3	39.1	46.9	36.5	36.0	42.0	40.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	42.3	40.7	41.3	39.1	46.9	36.5	36.0	42.0	40.9
Mean Queue	6.2	5.5	5.3	5.6	5.0	6.9	4.3	4.3	5.7	5.4
Max Queue	22.5	21.5	21.0	21.5	20.1	22.6	19.8	21.1	21.3	21.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.2	5.5	5.3	5.6	5.0	6.9	4.3	4.3	5.7	5.4
Total Max Queue	22.5	21.5	21.0	21.5	20.1	22.6	19.8	21.1	21.3	21.3
Speed	19.7	18.9	18.4	20.0	17.8	19.5	17.9	18.7	18.9	18.9

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	544.4	702.0	677.2	649.6	724.0	672.8	658.4	678.4	2,723.6	5,306.8
Delay	50.4	81.6	109.7	98.8	116.7	127.0	85.0	85.2	113.1	96.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.4	81.7	109.7	98.8	116.7	127.0	85.1	85.2	113.1	96.4
Mean Queue	2.3	5.3	6.3	5.7	7.4	7.0	4.6	4.8	6.6	5.6
Max Queue	6.8	12.3	12.8	11.0	13.3	13.9	10.2	10.4	12.8	11.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	0.9	1.0	1.2	1.0	1.0	0.9	1.0	1.0
Total Mean Queue	2.3	5.3	6.3	5.7	7.4	7.0	4.6	4.8	6.6	5.6
Total Max Queue	7.8	13.4	13.7	12.0	14.5	14.9	11.2	11.3	13.8	12.5
Speed	34.1	25.6	21.7	24.8	21.2	21.1	26.4	26.2	22.2	24.8

2030 Do Minimum

J-11 A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	697.2	673.2	604.4	624.4	566.4	594.0	524.4	563.6	2,389.2	4,847.6
Delay	39.1	47.0	41.9	31.1	47.0	43.0	28.5	26.2	40.7	38.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	47.0	41.9	31.1	47.0	43.0	28.5	26.2	40.7	38.3
Mean Queue	4.1	5.2	3.7	2.7	4.5	3.6	2.1	2.1	3.6	3.5
Max Queue	18.5	17.8	14.7	14.8	15.8	15.4	10.7	13.0	15.2	15.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.1	5.2	3.7	2.7	4.5	3.6	2.1	2.1	3.6	3.5
Total Max Queue	18.5	17.8	14.7	14.8	15.8	15.4	10.7	13.0	15.2	15.1
Speed	21.8	22.7	20.6	21.3	19.5	21.0	20.3	21.7	20.6	21.0

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	510.8	538.0	587.2	574.0	583.2	588.8	564.8	614.0	2,333.2	4,560.8
Delay	44.6	44.6	48.0	50.8	46.8	47.8	44.9	44.0	48.4	46.6
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	44.7	44.7	48.2	50.9	47.0	47.9	45.0	44.1	48.5	46.8
Mean Queue	2.0	2.0	2.5	2.4	2.3	2.4	2.1	2.2	2.4	2.2
Max Queue	6.6	6.6	6.6	7.0	6.7	6.7	6.3	7.0	6.8	6.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.5	1.7	1.6	1.9	1.4	1.8	1.5	1.7	1.6
Total Mean Queue	2.0	2.0	2.5	2.4	2.3	2.4	2.1	2.2	2.4	2.3
Total Max Queue	7.9	8.1	8.3	8.6	8.6	8.1	8.1	8.5	8.4	8.3
Speed	15.3	15.3	13.7	12.6	13.8	13.8	14.5	15.5	13.5	14.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	852.0	866.8	918.4	874.4	862.0	854.0	815.2	810.4	3,508.8	6,853.2
Delay	28.8	30.0	32.0	32.4	33.2	30.5	30.9	29.3	32.0	31.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	30.0	32.0	32.4	33.2	30.5	30.9	29.3	32.0	31.0
Mean Queue	3.7	4.1	4.7	4.6	4.8	4.1	4.0	3.8	4.5	4.3
Max Queue	21.4	20.7	21.3	20.7	20.4	19.7	20.5	20.4	20.5	20.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	4.1	4.7	4.6	4.8	4.1	4.0	3.8	4.5	4.3
Total Max Queue	21.4	20.7	21.3	20.7	20.4	19.7	20.5	20.4	20.5	20.6
Speed	24.1	24.9	26.6	25.0	25.9	25.1	24.7	25.0	25.7	25.2

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	598.8	656.8	622.8	628.8	624.0	655.2	633.6	605.6	2,530.8	5,025.6
Delay	40.6	40.4	40.1	38.9	39.4	39.5	39.3	38.6	39.5	39.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	40.4	40.1	39.0	39.5	39.5	39.3	38.6	39.5	39.6
Mean Queue	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1
Max Queue	6.4	6.9	6.1	6.3	6.8	6.9	6.5	6.5	6.5	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.0	0.9	1.0	1.0	1.0	1.1	1.0	1.0
Total Mean Queue	2.1	2.2	2.1	2.1	2.0	2.1	2.0	2.0	2.1	2.1
Total Max Queue	7.4	8.0	7.1	7.2	7.8	7.9	7.5	7.6	7.5	7.6
Speed	38.0	38.0	38.4	39.1	38.7	38.3	38.8	38.8	38.6	38.5

2030 Do Minimum

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	727.6	746.4	798.8	802.4	803.6	744.8	758.8	723.2	3,149.6	6,105.6
Delay	55.6	65.9	67.1	63.3	68.1	54.8	71.7	68.0	63.3	64.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.6	65.9	67.1	63.3	68.1	54.8	71.7	68.0	63.3	64.2
Mean Queue	6.8	8.5	9.6	9.4	9.1	6.8	9.4	9.0	8.7	8.6
Max Queue	19.8	20.3	20.6	20.0	20.4	19.4	19.3	19.9	20.1	20.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.8	8.5	9.6	9.4	9.1	6.8	9.4	9.0	8.7	8.6
Total Max Queue	19.8	20.3	20.6	20.0	20.4	19.4	19.3	19.9	20.1	20.0
Speed	17.3	16.8	18.5	18.7	18.1	18.0	18.3	17.8	18.3	18.0

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	622.8	573.6	611.2	627.6	580.0	576.4	571.2	570.4	2,395.2	4,733.2
Delay	70.5	72.5	86.7	74.9	65.0	78.9	99.9	111.7	76.4	81.8
Delay Virtual Queue	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	70.7	72.6	86.8	75.0	65.1	79.0	100.0	111.8	76.5	81.9
Mean Queue	3.8	3.6	4.7	3.9	3.3	4.3	6.1	6.3	4.0	4.4
Max Queue	9.5	9.1	11.5	11.0	8.6	11.9	16.6	19.9	10.8	12.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	2.2	1.4	1.7	1.8	2.0	1.1	1.8	1.7	1.7	1.7
Total Mean Queue	3.9	3.6	4.7	3.9	3.3	4.3	6.1	6.3	4.1	4.5
Total Max Queue	11.7	10.5	13.2	12.8	10.6	13.0	18.4	21.6	12.4	13.8
Speed	9.6	10.0	8.6	10.1	11.0	9.5	8.7	8.3	9.8	9.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	775.2	759.2	738.8	773.2	733.6	726.8	678.8	767.6	2,972.4	5,953.2
Delay	28.1	44.5	34.2	29.1	25.5	24.9	24.6	28.2	28.4	29.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	44.5	34.2	29.1	25.5	24.9	24.6	28.2	28.4	29.7
Mean Queue	4.0	6.3	4.5	4.0	3.0	3.1	2.7	3.7	3.7	3.9
Max Queue	20.9	20.1	20.3	19.4	20.1	18.3	18.1	20.5	19.5	19.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.0	6.3	4.5	4.0	3.0	3.1	2.7	3.7	3.7	3.9
Total Max Queue	20.9	20.1	20.3	19.4	20.1	18.3	18.1	20.5	19.5	19.7
Speed	33.5	30.5	31.6	32.5	33.1	32.4	31.2	32.8	32.4	32.2

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	842.0	766.4	819.2	835.2	765.2	821.2	754.0	769.2	3,240.8	6,372.4
Delay	66.4	81.8	113.5	93.1	60.9	64.8	86.4	90.2	83.1	82.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.5	81.8	113.6	93.1	60.9	64.8	86.5	90.2	83.1	82.3
Mean Queue	4.7	5.8	8.3	5.8	4.2	4.4	6.1	5.5	5.7	5.6
Max Queue	12.8	13.4	16.2	14.2	11.1	11.8	13.5	13.1	13.3	13.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.4	1.2	1.3	1.2	1.5	1.3	1.2	0.9	1.3	1.3
Total Mean Queue	4.7	5.8	8.3	5.8	4.2	4.4	6.1	5.5	5.7	5.6
Total Max Queue	14.2	14.6	17.5	15.4	12.6	13.1	14.7	14.0	14.7	14.5
Speed	30.4	28.7	24.8	26.9	31.5	30.6	27.9	27.8	28.5	28.6

2025 Do Something

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	438.4	459.2	520.8	416.0	460.4	474.4	420.4	480.8	1,871.6	3,670.4
Delay	22.5	20.8	34.3	36.4	36.6	39.8	28.7	30.1	36.8	31.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	20.8	34.3	36.4	36.6	39.8	28.7	30.1	36.8	31.8
Mean Queue	1.3	1.4	2.5	2.1	2.3	2.6	1.6	2.1	2.4	2.0
Max Queue	10.9	9.1	12.5	10.6	11.5	12.4	9.6	12.7	11.8	11.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.4	2.5	2.1	2.3	2.6	1.6	2.1	2.4	2.0
Total Max Queue	10.9	9.1	12.5	10.6	11.5	12.4	9.6	12.7	11.8	11.2
Speed	25.4	30.7	22.9	20.3	18.2	16.6	21.7	21.1	19.5	21.8

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	551.2	620.0	722.0	786.0	680.4	651.6	594.4	634.8	2,840.0	5,240.4
Delay	34.6	34.6	37.8	39.0	39.3	39.4	44.9	43.1	38.9	39.1
Delay Virtual Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	34.7	34.7	37.9	39.2	39.4	39.5	45.0	43.2	39.0	39.2
Mean Queue	1.5	1.9	2.1	2.5	2.2	2.2	2.2	2.2	2.3	2.1
Max Queue	6.0	6.4	8.1	8.6	7.7	9.9	7.2	6.7	8.6	7.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.7	1.8	2.1	1.9	1.6	1.7	1.9	1.9	1.7
Total Mean Queue	1.5	1.9	2.2	2.6	2.2	2.2	2.3	2.2	2.3	2.1
Total Max Queue	7.1	8.1	9.9	10.7	9.6	11.5	8.9	8.6	10.4	9.4
Speed	20.7	21.1	19.0	18.1	18.6	20.4	18.9	18.4	19.0	19.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	816.4	787.6	820.8	750.8	789.6	800.0	770.0	822.4	3,161.2	6,357.6
Delay	45.9	47.6	42.1	49.1	48.3	49.9	54.0	53.4	47.3	48.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	47.6	42.1	49.1	48.3	49.9	54.0	53.4	47.3	48.6
Mean Queue	6.9	6.1	5.4	6.4	6.5	6.7	7.2	7.6	6.3	6.6
Max Queue	22.5	21.0	21.2	21.1	21.3	21.9	21.5	22.2	21.4	21.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.9	6.1	5.4	6.4	6.5	6.7	7.2	7.6	6.3	6.6
Total Max Queue	22.5	21.0	21.2	21.1	21.3	21.9	21.5	22.2	21.4	21.6
Speed	19.5	18.3	18.4	18.4	18.0	17.7	17.3	17.5	18.1	18.1

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	504.8	680.8	647.6	629.6	661.2	648.4	655.6	636.4	2,586.8	5,064.4
Delay	48.7	74.9	99.0	88.4	121.1	131.2	90.0	76.6	109.9	93.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.7	75.0	99.0	88.4	121.2	131.2	90.0	76.7	109.9	93.3
Mean Queue	2.0	4.5	5.8	4.6	7.5	6.9	4.6	4.3	6.2	5.2
Max Queue	6.7	10.6	11.7	10.6	13.6	12.7	10.7	9.6	12.2	10.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.2	1.1	1.1	1.2	0.9	1.0	1.1	1.1	1.1
Total Mean Queue	2.0	4.5	5.8	4.6	7.5	6.9	4.6	4.3	6.2	5.2
Total Max Queue	7.6	11.8	12.8	11.7	14.8	13.6	11.7	10.7	13.2	12.0
Speed	35.0	27.2	22.4	26.0	21.8	21.5	26.1	27.6	22.9	25.6

2025 Do Something

J-11 J-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	711.2	712.0	618.0	623.2	608.8	611.2	534.4	605.6	2,461.2	5,024.4
Delay	43.0	42.6	38.4	42.6	53.1	32.3	39.8	28.4	41.6	40.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	42.6	38.4	42.6	53.1	32.3	39.8	28.4	41.6	40.2
Mean Queue	4.8	5.0	3.4	4.1	5.3	2.6	3.4	2.3	3.8	3.9
Max Queue	20.1	18.8	17.2	16.1	17.3	15.0	14.8	14.6	16.4	16.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.8	5.0	3.4	4.1	5.3	2.6	3.4	2.3	3.8	3.9
Total Max Queue	20.1	18.8	17.2	16.1	17.3	15.0	14.8	14.6	16.4	16.7
Speed	22.3	22.9	21.0	21.4	19.9	21.7	20.7	23.2	21.0	21.6

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	582.0	564.8	618.4	586.4	614.8	596.8	595.6	659.6	2,416.4	4,818.4
Delay	44.6	46.1	46.0	45.7	44.8	47.1	46.4	45.2	45.9	45.8
Delay Virtual Queue	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Total Delay	44.8	46.2	46.1	45.8	45.0	47.2	46.5	45.4	46.0	45.9
Mean Queue	2.2	2.1	2.4	2.2	2.3	2.4	2.3	2.4	2.3	2.3
Max Queue	7.3	6.4	6.9	6.9	7.1	6.8	6.6	7.3	6.9	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.9	1.7	1.7	1.7	1.9	1.5	1.6	2.0	1.7	1.7
Total Mean Queue	2.3	2.1	2.4	2.2	2.3	2.4	2.3	2.5	2.3	2.3
Total Max Queue	9.2	8.1	8.6	8.6	9.0	8.3	8.2	9.3	8.6	8.7
Speed	14.3	14.2	13.6	14.3	14.1	13.5	13.6	14.1	13.9	13.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	827.6	872.8	916.0	878.0	902.0	914.4	846.0	828.0	3,610.4	6,984.8
Delay	26.1	30.4	28.4	27.9	30.0	28.8	27.0	24.9	28.8	28.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	30.4	28.4	27.9	30.0	28.8	27.0	24.9	28.8	28.0
Mean Queue	3.2	4.2	4.2	4.1	4.4	4.0	3.8	3.1	4.2	3.9
Max Queue	20.5	21.8	21.0	20.8	21.7	20.2	20.1	19.9	20.9	20.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.2	4.2	4.2	4.1	4.4	4.0	3.8	3.1	4.2	3.9
Total Max Queue	20.5	21.8	21.0	20.8	21.7	20.2	20.1	19.9	20.9	20.8
Speed	26.6	25.5	27.2	27.0	26.5	26.4	28.0	26.8	26.8	26.8

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	529.6	578.4	550.0	567.6	528.4	600.0	566.0	528.0	2,246.0	4,448.0
Delay	38.8	40.5	40.3	39.7	39.6	38.6	39.5	37.4	39.5	39.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	40.5	40.4	39.7	39.6	38.6	39.5	37.4	39.6	39.3
Mean Queue	1.7	2.0	1.9	1.8	1.8	1.9	1.9	1.6	1.9	1.8
Max Queue	6.0	6.6	6.7	6.4	5.6	6.5	6.0	5.5	6.3	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.0	0.9	0.8	0.9	0.9	0.9	0.6	0.9	0.9
Total Mean Queue	1.7	2.0	1.9	1.8	1.8	1.9	1.9	1.6	1.9	1.8
Total Max Queue	7.0	7.6	7.6	7.2	6.5	7.4	6.9	6.1	7.2	7.1
Speed	39.1	38.0	37.9	38.7	38.5	39.1	38.8	39.6	38.5	38.7

2025 Do Something

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	666.4	685.2	706.0	664.8	714.8	715.2	714.8	747.6	2,800.8	5,614.8
Delay	82.5	96.1	91.5	94.6	94.8	91.0	90.3	84.8	93.0	91.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.5	96.1	91.5	94.6	94.8	91.0	90.3	84.8	93.0	91.0
Mean Queue	10.4	11.4	11.7	11.6	11.6	11.6	11.5	11.2	11.6	11.4
Max Queue	20.3	20.6	20.2	20.4	20.5	20.3	20.2	20.4	20.4	20.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	10.4	11.4	11.7	11.6	11.6	11.6	11.5	11.2	11.6	11.4
Total Max Queue	20.3	20.6	20.2	20.4	20.5	20.3	20.2	20.4	20.4	20.4
Speed	14.8	14.4	15.2	15.1	15.5	15.3	15.6	15.7	15.3	15.2

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	654.4	562.8	660.0	622.8	612.8	652.0	614.4	545.2	2,547.6	4,924.4
Delay	52.5	51.9	57.1	53.8	50.6	52.6	50.5	46.0	53.5	52.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Delay	52.6	52.0	57.2	53.9	50.7	52.7	50.6	46.1	53.7	52.2
Mean Queue	2.9	2.6	3.0	2.8	2.8	2.7	2.6	2.1	2.8	2.7
Max Queue	8.5	8.0	8.1	7.7	8.0	9.4	8.0	6.2	8.3	8.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	2.0	1.7	1.7	1.7	1.7	2.0	1.4	1.5	1.8	1.7
Total Mean Queue	2.9	2.6	3.1	2.9	2.8	2.7	2.6	2.1	2.9	2.7
Total Max Queue	10.5	9.7	9.8	9.4	9.7	11.4	9.4	7.7	10.1	9.7
Speed	13.3	13.7	12.3	13.7	13.7	14.0	13.6	15.4	13.4	13.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	738.4	672.8	700.0	733.6	762.8	737.6	740.8	805.2	2,934.0	5,891.2
Delay	33.0	58.3	49.6	42.7	38.2	31.7	28.8	26.4	40.5	38.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	58.3	49.6	42.7	38.2	31.7	28.8	26.4	40.5	38.8
Mean Queue	4.7	7.2	6.3	6.1	4.8	4.1	3.4	3.4	5.3	5.0
Max Queue	20.6	20.3	20.6	20.6	20.1	19.7	19.4	19.7	20.3	20.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.7	7.2	6.3	6.1	4.8	4.1	3.4	3.4	5.3	5.0
Total Max Queue	20.6	20.3	20.6	20.6	20.1	19.7	19.4	19.7	20.3	20.1
Speed	29.1	28.6	28.3	29.5	29.4	29.5	29.1	29.9	29.2	29.2

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	763.2	751.2	725.2	770.0	759.6	758.4	768.8	698.4	3,013.2	5,994.8
Delay	47.6	49.8	60.9	69.2	60.1	50.8	42.4	45.6	60.2	54.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.6	49.9	60.9	69.3	60.1	50.8	42.4	45.6	60.3	54.1
Mean Queue	3.0	3.4	4.1	4.1	3.9	3.1	2.6	2.7	3.8	3.4
Max Queue	9.0	9.6	9.6	10.2	9.5	8.6	8.2	8.2	9.5	9.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.0	1.0	1.3	1.1	1.2	1.1	1.1	1.2	1.1
Total Mean Queue	3.0	3.4	4.1	4.1	3.9	3.1	2.6	2.7	3.8	3.4
Total Max Queue	10.3	10.6	10.6	11.5	10.6	9.8	9.3	9.3	10.6	10.3
Speed	35.8	35.0	34.0	32.7	33.6	35.0	38.0	36.2	33.8	34.9

2030 Do Something

J-11 A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	449.2	524.0	514.4	518.8	490.0	544.0	486.0	520.0	2,067.2	4,046.4
Delay	24.8	24.9	32.5	30.5	29.8	30.1	26.7	28.2	30.7	28.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	24.9	32.5	30.5	29.8	30.1	26.7	28.2	30.7	28.7
Mean Queue	1.7	1.7	2.7	2.1	2.1	2.2	1.8	2.1	2.3	2.1
Max Queue	14.2	12.8	15.7	14.4	14.6	13.8	13.2	14.3	14.6	14.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	1.7	2.7	2.1	2.1	2.2	1.8	2.1	2.3	2.1
Total Max Queue	14.2	12.8	15.7	14.4	14.6	13.8	13.2	14.3	14.6	14.2
Speed	25.1	25.8	22.8	23.0	22.0	23.8	23.5	23.1	22.9	23.6

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	673.6	714.4	848.0	832.0	922.4	763.6	710.8	706.4	3,366.0	6,171.2
Delay	36.5	42.2	43.4	49.4	53.2	44.3	41.1	39.5	47.6	44.1
Delay Virtual Queue	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.1
Total Delay	36.6	42.4	43.5	49.6	53.4	44.5	41.2	39.6	47.8	44.3
Mean Queue	1.9	2.6	2.8	3.8	3.9	3.0	2.3	2.4	3.4	2.9
Max Queue	7.2	8.8	8.9	11.5	16.2	13.8	6.9	7.8	12.6	10.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.4	1.9	1.8	1.9	2.3	1.6	1.6	1.6	1.9	1.8
Total Mean Queue	1.9	2.7	2.8	3.8	3.9	3.0	2.3	2.4	3.4	2.9
Total Max Queue	8.6	10.7	10.7	13.4	18.5	15.4	8.5	9.4	14.5	12.2
Speed	19.9	17.2	17.6	15.6	15.1	18.4	19.1	20.0	16.7	17.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	770.4	643.2	613.6	608.0	579.6	663.6	671.6	794.0	2,464.8	5,344.0
Delay	61.6	94.7	100.1	108.4	117.2	99.6	90.8	79.1	106.3	95.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	94.7	100.1	108.4	117.2	99.6	90.8	79.1	106.3	95.3
Mean Queue	9.4	11.7	12.1	13.0	13.5	12.7	12.1	11.0	12.8	12.0
Max Queue	22.8	23.0	22.5	22.7	23.1	22.4	22.6	23.1	22.7	22.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	9.4	11.7	12.1	13.0	13.5	12.7	12.1	11.0	12.8	12.0
Total Max Queue	22.8	23.0	22.5	22.7	23.1	22.4	22.6	23.1	22.7	22.8
Speed	18.1	15.1	14.9	14.5	14.0	15.6	17.0	15.0	14.7	15.4

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	583.2	604.8	647.2	592.4	582.4	507.6	584.4	564.0	2,329.6	4,666.0
Delay	64.9	120.0	259.2	357.2	399.9	593.4	723.3	887.8	402.4	423.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	4.9	61.1	0.0	7.4
Total Delay	64.9	120.0	259.2	357.3	399.9	593.4	728.2	948.9	402.4	430.5
Mean Queue	3.2	8.6	19.5	25.3	36.7	43.2	42.2	38.0	31.2	27.5
Max Queue	8.1	19.1	28.3	34.4	45.8	49.1	49.0	44.4	39.4	35.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	6.9	40.2	80.9	115.2	11.8	28.3
Max Virtual Queue	1.0	1.1	1.0	1.7	21.9	62.4	99.9	134.4	21.8	38.4
Total Mean Queue	3.2	8.6	19.5	25.3	43.7	83.4	123.2	153.2	43.0	55.9
Total Max Queue	9.1	20.2	29.3	36.1	67.7	111.5	148.9	178.8	61.2	73.6
Speed	30.3	22.5	13.4	11.6	11.9	8.2	8.5	11.0	11.3	14.3

2030 Do Something

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	780.8	724.4	713.6	686.4	734.0	619.6	594.8	609.6	2,753.6	5,463.2
Delay	47.8	54.2	73.4	60.5	61.5	57.6	63.4	64.6	63.3	60.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.8	54.2	73.4	60.5	61.5	57.6	63.4	64.6	63.3	60.7
Mean Queue	6.6	7.7	9.1	8.2	7.6	6.8	6.7	7.1	7.9	7.5
Max Queue	19.6	19.4	20.7	20.1	20.0	19.2	18.9	18.6	20.0	19.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.6	7.7	9.1	8.2	7.6	6.8	6.7	7.1	7.9	7.5
Total Max Queue	19.6	19.4	20.7	20.1	20.0	19.2	18.9	18.6	20.0	19.6
Speed	25.2	24.7	22.8	24.7	24.1	22.7	22.8	23.8	23.6	23.8

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	690.8	671.2	536.0	608.8	726.0	564.8	556.0	616.4	2,435.6	4,970.0
Delay	62.8	79.9	197.8	356.7	311.3	374.8	522.9	500.4	310.2	301.9
Delay Virtual Queue	0.1	0.2	0.8	33.4	99.7	146.6	225.6	374.4	70.1	105.7
Total Delay	63.0	80.1	198.6	390.1	411.0	521.4	748.5	874.8	380.3	407.5
Mean Queue	4.0	5.0	18.2	38.1	32.8	43.8	52.8	52.5	33.2	31.2
Max Queue	11.9	13.2	46.0	63.4	56.9	72.9	74.3	81.5	59.8	53.3
Mean Virtual Queue	0.0	0.0	0.5	11.4	23.8	28.8	61.4	91.7	16.1	26.0
Max Virtual Queue	1.8	2.2	5.0	28.3	34.6	48.3	87.5	115.0	29.1	39.1
Total Mean Queue	4.0	5.0	18.7	49.4	56.6	72.6	114.1	144.3	49.3	57.1
Total Max Queue	13.7	15.4	51.0	91.7	91.5	121.2	161.8	196.5	88.9	92.4
Speed	10.9	9.1	5.5	3.3	3.9	3.1	3.6	2.7	4.0	5.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	772.0	750.0	799.6	640.4	774.8	761.2	753.6	713.2	2,976.0	5,964.8
Delay	49.5	71.2	68.7	92.8	70.8	70.0	78.4	84.5	75.6	73.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.5	71.2	68.7	92.8	70.8	70.0	78.4	84.5	75.6	73.5
Mean Queue	7.0	10.4	10.5	11.9	10.2	10.7	11.2	11.7	10.8	10.5
Max Queue	22.4	22.9	22.7	22.6	22.2	22.2	23.0	22.5	22.4	22.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.0	10.4	10.5	11.9	10.2	10.7	11.2	11.7	10.8	10.5
Total Max Queue	22.4	22.9	22.7	22.6	22.2	22.2	23.0	22.5	22.4	22.5
Speed	20.9	21.7	22.3	20.3	23.3	23.2	20.9	20.3	22.3	21.7

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	638.8	696.0	594.4	715.6	595.2	630.8	689.2	588.8	2,536.0	5,148.8
Delay	48.6	69.1	104.1	90.5	116.7	186.0	246.1	284.1	124.4	141.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.6	69.1	104.1	90.5	116.8	186.1	246.1	284.1	124.4	141.1
Mean Queue	2.9	4.1	6.6	4.9	8.1	12.7	16.4	19.4	8.1	9.2
Max Queue	8.4	10.3	14.4	12.0	18.1	23.0	29.1	29.3	16.9	17.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.1	0.9	0.8	1.2	1.0	1.0	1.3	1.0	1.0
Total Mean Queue	2.9	4.1	6.6	4.9	8.1	12.7	16.4	19.4	8.1	9.2
Total Max Queue	9.3	11.4	15.3	12.8	19.3	24.0	30.1	30.6	17.9	19.0
Speed	36.2	32.4	29.2	29.2	29.1	21.7	19.5	21.7	27.3	27.4

2030 Do Something

J-11 A-11: A171 Cargo Fleet Lane / A1085 Longlands Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	785.6	834.4	807.6	872.4	781.2	661.2	570.8	622.4	3,122.4	5,935.6
Delay	62.0	68.8	59.8	69.7	67.8	102.9	120.0	109.7	75.1	81.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.0	68.8	59.8	69.7	67.8	102.9	120.0	109.7	75.1	81.8
Mean Queue	9.5	9.6	9.7	10.2	10.2	12.0	12.3	12.5	10.5	10.7
Max Queue	20.6	19.2	19.6	19.9	19.7	19.6	19.8	19.8	19.7	19.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	9.5	9.6	9.7	10.2	10.2	12.0	12.3	12.5	10.5	10.7
Total Max Queue	20.6	19.2	19.6	19.9	19.7	19.6	19.8	19.8	19.7	19.8
Speed	19.3	19.1	20.3	19.2	19.3	16.0	15.9	16.2	18.7	18.2

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	635.2	561.2	646.0	689.6	672.8	639.6	559.2	566.0	2,648.0	4,969.6
Delay	85.3	151.9	161.6	139.2	122.4	161.9	242.5	338.8	146.3	172.2
Delay Virtual Queue	0.2	0.1	15.3	9.8	0.2	0.5	1.3	17.8	6.4	5.7
Total Delay	85.4	152.0	176.9	149.0	122.6	162.4	243.8	356.7	152.7	177.9
Mean Queue	5.3	11.4	11.7	10.4	9.7	13.2	23.0	31.5	11.2	14.2
Max Queue	16.1	22.6	21.0	22.1	21.1	31.0	50.3	55.1	23.8	29.2
Mean Virtual Queue	0.0	0.4	3.5	0.5	0.0	0.1	0.7	9.6	1.0	1.8
Max Virtual Queue	1.8	4.8	6.8	4.5	2.0	2.6	7.5	20.3	4.0	6.0
Total Mean Queue	5.3	11.8	15.2	10.9	9.7	13.3	23.7	41.1	12.3	15.9
Total Max Queue	17.9	27.4	27.8	26.6	23.1	33.6	57.8	75.4	27.8	35.3
Speed	9.2	6.0	5.5	6.3	5.6	6.3	4.1	4.0	5.9	5.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	690.8	694.4	678.8	802.0	692.8	689.6	660.8	751.6	2,863.2	5,660.8
Delay	46.1	77.6	64.9	53.6	47.5	37.5	28.6	29.2	50.9	48.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	77.6	64.9	53.6	47.5	37.5	28.6	29.2	50.9	48.4
Mean Queue	7.1	10.5	8.6	7.7	6.7	4.1	3.3	3.8	6.8	6.5
Max Queue	21.1	21.3	21.7	20.8	21.3	20.9	20.4	20.6	21.2	21.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.1	10.5	8.6	7.7	6.7	4.1	3.3	3.8	6.8	6.5
Total Max Queue	21.1	21.3	21.7	20.8	21.3	20.9	20.4	20.6	21.2	21.0
Speed	30.2	26.7	27.9	28.6	29.5	31.4	33.9	31.8	29.4	29.9

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	823.2	738.4	886.0	770.8	846.0	731.2	747.2	728.0	3,234.0	6,270.8
Delay	85.0	130.8	147.7	145.6	124.5	144.0	179.2	244.8	140.4	149.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.0	130.9	147.7	145.6	124.5	144.0	179.2	244.8	140.4	149.1
Mean Queue	6.4	9.5	11.3	9.3	8.3	10.1	13.7	17.2	9.8	10.6
Max Queue	15.6	18.9	21.7	18.1	16.9	17.6	24.7	27.0	18.6	19.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.5	1.3	1.1	0.9	1.2	1.2	1.2	1.1	1.2
Total Mean Queue	6.4	9.5	11.3	9.3	8.3	10.1	13.7	17.2	9.8	10.6
Total Max Queue	16.8	20.4	23.0	19.2	17.8	18.8	25.9	28.2	19.7	21.1
Speed	25.6	20.1	18.0	22.6	24.3	20.0	17.7	13.8	21.2	20.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	513.6	540.8	611.6	522.0	510.4	514.0	522.4	565.6	2,158.0	4,300.4
Delay	8.2	10.4	9.4	10.4	10.1	12.9	10.5	12.7	10.7	10.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	10.4	9.4	10.4	10.1	12.9	10.5	12.7	10.7	10.6
Mean Queue	0.5	0.8	0.7	0.7	0.6	0.9	0.6	1.0	0.7	0.7
Max Queue	10.7	12.4	9.7	11.4	8.1	13.3	10.2	13.0	10.6	11.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Mean Queue	0.5	0.8	0.7	0.7	0.6	0.9	0.6	1.0	0.7	0.7
Total Max Queue	10.7	12.4	10.0	11.4	8.1	13.3	10.2	13.0	10.7	11.1
Speed	33.2	32.6	32.0	30.9	30.0	29.2	30.3	27.4	30.5	30.7

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	73.6	92.0	144.4	132.4	152.8	138.4	134.8	127.6	568.0	996.0
Delay	40.1	42.0	38.2	34.8	36.0	35.9	38.5	32.2	36.2	37.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	42.0	38.2	34.8	36.0	35.9	38.5	32.2	36.2	37.1
Mean Queue	0.8	1.0	1.5	1.1	1.5	1.6	3.2	2.8	1.4	1.7
Max Queue	5.6	6.8	8.4	5.2	9.5	8.1	9.7	9.0	7.8	7.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	1.0	1.5	1.1	1.5	1.6	3.2	2.8	1.4	1.7
Total Max Queue	5.6	6.8	8.4	5.2	9.5	8.1	9.7	9.0	7.8	7.8
Speed	9.1	8.4	8.9	9.9	10.8	11.1	9.5	11.7	10.2	9.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	788.0	741.6	795.2	730.4	684.0	636.4	680.8	644.4	2,846.0	5,700.8
Delay	73.7	98.5	53.5	36.4	28.7	25.0	21.3	17.6	35.9	43.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	98.5	53.5	36.4	28.7	25.0	21.3	17.6	35.9	43.4
Mean Queue	14.4	16.8	9.2	5.5	4.0	4.1	9.1	8.4	5.7	8.6
Max Queue	45.4	47.0	34.7	26.9	20.0	20.1	24.6	22.3	25.4	29.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	14.4	16.8	9.2	5.5	4.0	4.1	9.1	8.4	5.7	8.6
Total Max Queue	45.4	47.0	34.7	26.9	20.0	20.1	24.6	22.3	25.4	29.6
Speed	26.5	25.1	26.4	24.8	26.1	25.3	26.5	26.7	25.6	25.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	737.6	714.8	696.8	728.0	685.6	681.2	725.2	678.0	2,791.6	5,647.2
Delay	10.3	12.1	10.6	9.8	10.8	12.8	11.6	9.7	11.0	11.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	12.1	10.6	9.8	10.8	12.8	11.6	9.7	11.0	11.0
Mean Queue	1.0	1.2	0.9	0.9	0.9	1.2	1.1	0.8	1.0	1.0
Max Queue	14.8	14.8	12.3	12.5	13.3	17.7	14.5	12.2	14.0	14.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.2	0.9	0.9	0.9	1.2	1.1	0.8	1.0	1.0
Total Max Queue	14.8	14.8	12.3	12.5	13.3	17.7	14.5	12.2	14.0	14.0
Speed	29.6	27.7	28.9	29.3	28.9	28.3	27.5	29.2	28.9	28.7

Arm Reference:	B
Name	Cranmore Road

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	69.6	95.6	115.6	92.8	111.2	113.6	110.0	64.8	433.2	773.2
Delay	28.0	26.5	29.5	32.5	27.8	27.8	27.4	28.1	29.4	28.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	26.5	29.5	32.5	27.8	27.8	27.4	28.1	29.4	28.5
Mean Queue	0.5	0.7	0.9	0.8	0.8	0.8	0.8	0.5	0.8	0.7
Max Queue	5.4	5.2	6.1	5.7	5.7	5.5	5.8	4.3	5.8	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.7	0.9	0.8	0.8	0.8	0.8	0.5	0.8	0.7
Total Max Queue	5.4	5.2	6.1	5.7	5.7	5.5	5.8	4.3	5.8	5.5
Speed	12.4	11.8	11.6	10.9	11.9	13.6	11.7	11.9	12.0	12.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	622.0	556.0	662.0	610.0	597.6	590.4	593.2	564.8	2,460.0	4,796.0
Delay	10.5	11.3	13.6	11.9	12.5	12.0	12.5	10.9	12.5	12.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.5	11.3	13.6	11.9	12.5	12.0	12.5	10.9	12.5	12.0
Mean Queue	1.2	1.1	1.7	1.3	1.4	1.3	1.4	1.1	1.4	1.3
Max Queue	13.3	10.1	13.6	13.4	14.8	12.0	11.8	11.3	13.5	12.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.7	1.3	1.4	1.3	1.4	1.1	1.4	1.3
Total Max Queue	13.3	10.1	13.6	13.4	14.8	12.0	11.8	11.3	13.5	12.6
Speed	29.6	27.1	28.6	29.4	28.2	27.4	28.8	27.4	28.4	28.3

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	874.0	837.6	834.0	726.8	805.6	752.0	685.2	733.2	3,118.4	6,248.4
Delay	10.3	12.3	10.0	15.0	10.1	10.5	10.7	9.9	11.4	11.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	12.3	10.0	15.0	10.1	10.5	10.7	9.9	11.4	11.1
Mean Queue	1.1	1.3	3.2	5.3	6.4	6.5	6.4	6.3	5.4	4.7
Max Queue	14.4	16.2	15.7	18.2	16.5	18.5	16.8	14.6	17.2	16.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.3	3.2	5.3	6.4	6.5	6.4	6.3	5.4	4.7
Total Max Queue	14.4	16.2	15.7	18.2	16.5	18.5	16.8	14.6	17.2	16.5
Speed	31.5	31.4	31.9	28.7	32.5	32.4	31.5	32.2	31.4	31.5

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	110.4	126.4	92.8	96.0	95.6	78.4	92.4	82.0	362.8	774.0
Delay	32.9	87.4	43.8	30.4	36.5	34.7	34.7	34.3	36.3	41.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.9	87.4	43.8	30.4	36.5	34.7	34.7	34.3	36.3	41.2
Mean Queue	1.7	2.2	2.5	2.5	4.0	3.9	4.0	3.9	3.2	3.1
Max Queue	9.1	7.9	8.6	7.5	7.5	8.4	9.3	9.2	8.0	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.7	2.2	2.5	2.5	4.0	3.9	4.0	3.9	3.2	3.1
Total Max Queue	9.1	7.9	8.6	7.5	7.5	8.4	9.3	9.2	8.0	8.4
Speed	11.3	9.1	8.3	14.4	11.1	10.2	11.3	9.8	11.0	10.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	661.6	762.8	689.6	560.4	556.0	530.4	572.8	576.0	2,336.4	4,909.6
Delay	12.0	50.2	21.3	13.6	12.0	13.3	14.3	13.2	15.0	18.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	50.2	21.3	13.6	12.0	13.3	14.3	13.2	15.0	18.3
Mean Queue	4.6	5.7	8.4	8.3	10.2	11.2	11.4	11.2	9.5	8.9
Max Queue	18.0	24.0	21.3	21.7	19.7	22.3	22.6	21.3	21.3	21.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.6	5.7	8.4	8.3	10.2	11.2	11.4	11.2	9.5	8.9
Total Max Queue	18.0	24.0	21.3	21.7	19.7	22.3	22.6	21.3	21.3	21.4
Speed	30.8	30.2	29.8	30.0	30.6	30.3	28.6	31.4	30.2	30.2

2025 Do Minimum

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	538.8	625.2	688.4	580.0	614.0	598.8	616.0	642.8	2,481.2	4,904.0
Delay	9.3	11.5	11.9	11.7	11.9	11.9	11.0	11.8	11.9	11.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	11.5	11.9	11.7	11.9	11.9	11.0	11.8	11.9	11.4
Mean Queue	0.6	1.0	1.1	0.9	0.9	0.9	0.8	1.0	1.0	0.9
Max Queue	9.6	13.2	14.5	13.7	12.1	12.3	10.3	15.2	13.2	12.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Mean Queue	0.6	1.0	1.1	0.9	0.9	0.9	0.8	1.0	1.0	0.9
Total Max Queue	9.6	13.2	14.7	13.7	12.1	12.3	10.3	15.2	13.2	12.7
Speed	31.7	30.2	31.1	29.0	27.7	29.4	29.3	29.1	29.3	29.6

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	87.6	110.0	155.2	149.2	186.4	163.2	170.0	127.2	654.0	1,148.8
Delay	40.0	35.3	41.8	36.2	33.9	38.1	41.9	34.2	37.5	37.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	35.3	41.8	36.2	33.9	38.1	41.9	34.2	37.5	37.7
Mean Queue	0.9	1.1	1.6	1.4	1.6	1.7	1.8	1.1	1.6	1.4
Max Queue	7.2	6.6	9.9	6.1	9.4	9.7	9.8	7.7	8.8	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.1	1.6	1.4	1.6	1.7	1.8	1.1	1.6	1.4
Total Max Queue	7.2	6.6	9.9	6.1	9.4	9.7	9.8	7.7	8.8	8.4
Speed	9.6	11.3	10.7	10.2	10.6	10.7	9.1	11.8	10.6	10.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	783.6	702.8	718.8	654.4	575.6	670.4	719.6	659.6	2,619.2	5,484.8
Delay	33.6	30.2	29.8	26.5	17.0	18.8	21.6	22.4	23.0	24.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	30.2	29.8	26.5	17.0	18.8	21.6	22.4	23.0	24.8
Mean Queue	6.2	4.4	4.9	3.5	2.1	2.5	3.4	3.0	3.3	3.7
Max Queue	28.2	22.2	24.0	20.8	13.4	14.4	21.5	21.6	18.2	20.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.2	4.4	4.9	3.5	2.1	2.5	3.4	3.0	3.3	3.7
Total Max Queue	28.2	22.2	24.0	20.8	13.4	14.4	21.5	21.6	18.2	20.5
Speed	27.0	25.9	27.3	26.7	26.3	27.0	26.9	26.7	26.8	26.7

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	763.2	736.8	717.6	744.8	694.4	694.0	735.6	703.6	2,850.8	5,790.0
Delay	11.5	13.4	11.9	12.7	12.4	15.7	12.5	12.6	13.2	12.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	13.4	11.9	12.7	12.4	15.7	12.5	12.6	13.2	12.9
Mean Queue	1.0	1.4	1.1	1.2	1.1	1.6	1.2	1.1	1.2	1.2
Max Queue	15.0	16.9	13.0	13.5	12.8	17.9	14.8	13.3	14.3	14.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.4	1.1	1.2	1.1	1.6	1.2	1.1	1.2	1.2
Total Max Queue	15.0	16.9	13.0	13.5	12.8	17.9	14.8	13.3	14.3	14.6
Speed	28.7	29.2	29.7	28.7	28.1	28.6	28.2	28.0	28.8	28.7

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	153.2	164.4	196.4	178.0	188.8	162.8	191.2	158.0	726.0	1,392.8
Delay	39.3	39.6	47.4	40.2	40.1	41.1	41.3	39.8	42.2	41.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	39.6	47.4	40.2	40.1	41.1	41.3	39.8	42.2	41.2
Mean Queue	1.6	1.7	2.4	1.8	2.0	1.8	2.0	1.6	2.0	1.9
Max Queue	8.1	8.9	10.7	8.1	9.7	9.2	9.8	8.1	9.4	9.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	2.4	1.8	2.0	1.8	2.0	1.6	2.0	1.9
Total Max Queue	8.1	8.9	10.7	8.1	9.7	9.2	9.8	8.1	9.4	9.1
Speed	9.3	9.9	7.2	9.4	9.4	10.6	9.0	10.6	9.2	9.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	709.2	668.0	749.2	666.8	672.8	722.0	638.4	655.2	2,810.8	5,481.6
Delay	18.6	18.3	16.1	18.8	18.9	19.9	17.9	18.4	18.4	18.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	18.3	16.1	18.8	18.9	19.9	17.9	18.4	18.4	18.4
Mean Queue	2.7	2.5	2.4	2.5	2.7	2.9	2.3	2.4	2.6	2.6
Max Queue	18.3	18.0	16.0	17.8	17.6	19.0	16.0	17.0	17.6	17.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	2.5	2.4	2.5	2.7	2.9	2.3	2.4	2.6	2.6
Total Max Queue	18.3	18.0	16.0	17.8	17.6	19.0	16.0	17.0	17.6	17.5
Speed	29.2	29.3	30.6	27.9	29.0	30.2	27.6	28.1	29.4	29.0

2025 Do Minimum

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	978.0	963.2	954.0	951.6	1,030.0	1,008.4	966.8	949.6	3,944.0	7,801.6
Delay	12.0	12.4	12.8	12.5	12.5	14.0	11.7	13.5	12.9	12.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	12.4	12.8	12.5	12.5	14.0	11.7	13.5	12.9	12.7
Mean Queue	1.6	1.7	1.7	1.6	1.7	2.1	1.5	1.9	1.8	1.8
Max Queue	18.1	18.8	17.9	16.2	16.9	20.1	17.6	17.8	17.8	17.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.7	1.7	1.6	1.7	2.1	1.5	1.9	1.8	1.8
Total Max Queue	18.1	18.8	17.9	16.2	16.9	20.1	17.6	17.8	17.8	17.9
Speed	33.9	34.7	34.0	33.2	33.3	34.8	33.7	34.1	33.8	33.9

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	106.4	88.4	82.8	88.8	90.8	99.6	99.2	94.8	362.0	750.8
Delay	37.2	45.5	40.6	43.5	45.2	38.4	39.2	42.0	41.9	41.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.2	45.5	40.6	43.5	45.2	38.4	39.2	42.0	41.9	41.5
Mean Queue	1.1	1.0	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0
Max Queue	7.8	5.8	7.0	7.2	5.6	7.0	6.0	6.5	6.7	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.0	0.9	1.0	1.1	1.0	1.1	1.0	1.0	1.0
Total Max Queue	7.8	5.8	7.0	7.2	5.6	7.0	6.0	6.5	6.7	6.6
Speed	11.4	8.7	10.3	9.0	9.9	10.2	11.2	8.8	9.8	9.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	759.6	766.4	797.6	804.8	733.2	714.8	738.0	773.2	3,050.4	6,087.6
Delay	17.8	56.0	52.8	39.7	21.7	22.8	26.0	26.6	34.2	33.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	56.0	52.8	39.7	21.7	22.8	26.0	26.6	34.2	33.1
Mean Queue	2.8	10.0	9.5	6.7	3.1	3.4	4.2	4.3	5.7	5.5
Max Queue	21.0	36.3	37.6	30.7	18.7	21.4	21.7	24.2	27.1	26.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.8	10.0	9.5	6.7	3.1	3.4	4.2	4.3	5.7	5.5
Total Max Queue	21.0	36.3	37.6	30.7	18.7	21.4	21.7	24.2	27.1	26.5
Speed	31.9	28.9	29.9	30.0	28.8	29.6	28.8	31.1	29.6	29.8

2030 Do Minimum

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	608.0	626.8	707.2	663.6	662.4	614.0	629.2	699.6	2,647.2	5,210.8
Delay	9.5	12.0	11.2	11.7	11.4	11.5	11.8	11.4	11.4	11.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	12.0	11.2	11.7	11.4	11.5	11.8	11.4	11.4	11.3
Mean Queue	0.7	1.0	1.0	1.0	0.9	0.9	0.9	1.1	1.0	0.9
Max Queue	11.8	13.0	12.5	14.1	10.4	12.4	11.2	13.7	12.4	12.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	1.0	1.0	1.0	0.9	0.9	0.9	1.1	1.0	0.9
Total Max Queue	11.8	13.0	12.6	14.1	10.4	12.4	11.2	13.7	12.4	12.4
Speed	31.6	29.9	31.7	30.0	29.5	30.0	29.7	30.6	30.3	30.4

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	112.8	118.0	176.8	166.4	210.0	212.4	182.4	151.2	765.6	1,330.0
Delay	41.6	38.2	43.5	40.0	44.4	47.5	39.9	37.5	43.9	41.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	38.2	43.5	40.0	44.4	47.5	39.9	37.5	43.9	41.8
Mean Queue	1.2	1.2	2.1	1.6	2.5	2.5	1.9	1.5	2.2	1.9
Max Queue	8.8	6.3	9.6	6.5	12.0	11.3	9.6	8.9	9.9	9.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.2	2.1	1.6	2.5	2.5	1.9	1.5	2.2	1.9
Total Max Queue	8.8	6.3	9.6	6.5	12.0	11.3	9.6	8.9	9.9	9.2
Speed	9.2	10.1	9.6	9.4	8.8	8.0	9.0	9.2	9.0	9.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	729.2	680.8	725.6	631.6	616.0	626.8	699.2	664.8	2,600.0	5,374.0
Delay	25.3	21.6	24.3	19.9	18.2	20.0	22.3	18.1	20.6	21.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.3	21.6	24.3	19.9	18.2	20.0	22.3	18.1	20.6	21.1
Mean Queue	4.1	3.0	3.7	2.7	2.4	2.8	3.3	2.4	2.9	3.0
Max Queue	24.7	18.1	18.4	14.8	13.3	15.6	18.9	15.8	15.5	17.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.1	3.0	3.7	2.7	2.4	2.8	3.3	2.4	2.9	3.0
Total Max Queue	24.7	18.1	18.4	14.8	13.3	15.6	18.9	15.8	15.5	17.2
Speed	28.4	26.9	27.1	27.7	26.2	26.3	27.1	28.5	26.8	27.2

2030 Do Minimum

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	809.2	756.0	754.0	754.8	724.0	711.6	742.0	702.8	2,944.4	5,954.4
Delay	11.2	12.6	12.3	11.0	12.9	13.9	11.3	13.3	12.6	12.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	12.6	12.3	11.0	12.9	13.9	11.3	13.3	12.6	12.4
Mean Queue	1.1	1.4	1.2	1.1	1.2	1.4	1.0	1.3	1.2	1.2
Max Queue	15.3	16.5	14.7	12.6	14.9	17.5	12.8	16.2	14.9	15.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.4	1.2	1.1	1.2	1.4	1.0	1.3	1.2	1.2
Total Max Queue	15.3	16.5	14.7	12.6	14.9	17.5	12.8	16.2	14.9	15.0
Speed	30.9	31.0	30.1	30.8	29.9	28.4	30.0	29.3	29.8	30.0

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	134.4	171.2	172.4	156.0	182.4	168.4	170.0	150.0	679.2	1,304.8
Delay	40.2	42.8	45.4	48.2	46.6	39.1	42.0	38.9	44.8	43.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	42.8	45.4	48.2	46.6	39.1	42.0	38.9	44.8	43.1
Mean Queue	1.5	1.9	2.2	1.9	2.2	1.7	1.9	1.5	2.0	1.8
Max Queue	9.3	9.9	10.1	9.6	9.3	8.7	8.5	9.3	9.4	9.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.9	2.2	1.9	2.2	1.7	1.9	1.5	2.0	1.8
Total Max Queue	9.3	9.9	10.1	9.6	9.3	8.7	8.5	9.3	9.4	9.3
Speed	10.7	8.5	8.9	8.0	8.3	10.0	8.7	9.6	8.8	9.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	759.6	727.6	788.0	748.0	711.6	690.8	697.6	686.4	2,938.4	5,809.6
Delay	15.7	21.3	24.8	32.6	43.8	22.2	21.1	16.2	30.8	25.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	21.3	24.8	32.6	43.8	22.2	21.1	16.2	30.8	25.4
Mean Queue	2.4	3.4	3.9	6.0	6.4	3.0	3.0	2.2	4.8	3.9
Max Queue	19.4	21.7	21.0	25.8	25.6	17.8	16.9	16.3	22.6	20.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	3.4	3.9	6.0	6.4	3.0	3.0	2.2	4.8	3.9
Total Max Queue	19.4	21.7	21.0	25.8	25.6	17.8	16.9	16.3	22.6	20.8
Speed	30.2	29.3	30.1	29.6	29.8	28.6	27.9	29.0	29.5	29.3

2030 Do Minimum

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,092.4	1,008.4	1,078.4	1,085.2	1,119.2	1,042.4	1,032.4	1,047.2	4,325.2	8,505.6
Delay	15.2	14.6	12.8	13.1	13.4	20.4	29.7	28.1	14.9	18.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	14.6	12.8	13.1	13.4	20.4	29.7	28.1	14.9	18.0
Mean Queue	2.6	2.3	2.0	2.1	2.1	4.2	5.7	5.9	2.6	3.3
Max Queue	22.1	21.9	19.5	20.9	19.7	25.3	24.1	27.6	21.4	22.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.3	2.0	2.1	2.1	4.2	5.7	5.9	2.6	3.3
Total Max Queue	22.1	21.9	19.5	20.9	19.7	25.3	24.1	27.6	21.4	22.5
Speed	34.0	34.5	34.6	33.9	34.5	34.1	32.7	33.3	34.3	34.0

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	110.0	110.0	91.2	94.8	96.4	114.0	99.6	122.4	396.4	838.4
Delay	43.0	46.0	43.6	42.8	48.6	44.1	48.5	41.7	44.8	44.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	46.0	43.6	42.8	48.6	44.1	48.5	41.7	44.8	44.8
Mean Queue	1.3	1.3	1.0	1.1	1.2	1.4	1.2	1.4	1.2	1.2
Max Queue	7.7	7.1	6.3	6.9	5.8	7.0	7.4	7.9	6.5	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.3	1.0	1.1	1.2	1.4	1.2	1.4	1.2	1.2
Total Max Queue	7.7	7.1	6.3	6.9	5.8	7.0	7.4	7.9	6.5	7.0
Speed	9.1	8.4	9.6	11.6	9.2	9.9	7.5	10.1	10.0	9.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	771.6	746.0	763.6	807.2	766.0	754.0	693.6	739.2	3,090.8	6,041.2
Delay	29.0	71.1	84.6	77.5	80.0	53.2	79.9	100.8	73.8	72.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.0	71.1	84.6	77.5	80.0	53.2	79.9	100.8	73.8	72.2
Mean Queue	5.1	13.7	14.4	14.4	13.8	8.8	14.2	15.8	12.8	12.6
Max Queue	28.1	39.4	42.0	48.6	44.4	39.4	46.9	42.0	43.6	41.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.1	13.7	14.4	14.4	13.8	8.8	14.2	15.8	12.8	12.6
Total Max Queue	28.1	39.4	42.0	48.6	44.4	39.4	46.9	42.0	43.6	41.6
Speed	32.1	30.1	29.8	30.0	29.5	30.0	29.8	31.5	29.8	30.3

2025 Do Something

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	591.6	643.6	717.2	585.6	630.8	616.8	612.0	633.2	2,550.4	5,030.8
Delay	9.8	12.1	11.5	11.8	10.8	12.4	10.2	11.6	11.6	11.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	12.1	11.5	11.8	10.8	12.4	10.2	11.6	11.6	11.3
Mean Queue	0.7	1.1	1.0	0.9	0.8	1.0	0.8	1.0	0.9	0.9
Max Queue	12.5	15.1	12.5	12.3	11.6	13.4	11.0	15.4	12.5	12.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Mean Queue	0.7	1.1	1.0	0.9	0.8	1.0	0.8	1.0	0.9	0.9
Total Max Queue	12.5	15.1	12.8	12.3	11.6	13.4	11.0	15.4	12.5	13.0
Speed	31.1	30.6	29.9	29.2	28.9	29.5	31.4	32.1	29.4	30.2

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	87.6	112.0	156.8	156.4	185.2	173.6	154.8	156.4	672.0	1,182.8
Delay	36.5	36.5	45.6	35.2	54.0	39.1	47.9	43.2	43.5	42.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.5	36.5	45.6	35.2	54.0	39.1	47.9	43.2	43.5	42.4
Mean Queue	0.8	1.1	1.9	1.4	2.6	1.7	1.9	1.7	1.9	1.7
Max Queue	8.6	8.0	9.2	6.2	10.7	9.8	8.8	8.3	9.0	8.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	1.1	1.9	1.4	2.6	1.7	1.9	1.7	1.9	1.7
Total Max Queue	8.6	8.0	9.2	6.2	10.7	9.8	8.8	8.3	9.0	8.7
Speed	10.8	10.7	9.1	11.4	7.7	9.5	8.8	8.5	9.5	9.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	808.0	660.4	728.4	613.2	626.4	610.0	720.4	697.6	2,578.0	5,464.4
Delay	25.9	25.1	29.5	24.5	38.3	28.9	47.6	55.1	30.3	33.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.9	25.1	29.5	24.5	38.3	28.9	47.6	55.1	30.3	33.9
Mean Queue	4.5	3.5	4.8	3.5	5.2	4.2	7.9	8.8	4.4	5.2
Max Queue	24.0	18.7	22.2	19.9	20.5	19.2	26.9	34.6	20.5	22.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.5	3.5	4.8	3.5	5.2	4.2	7.9	8.8	4.4	5.2
Total Max Queue	24.0	18.7	22.2	19.9	20.5	19.2	26.9	34.6	20.5	22.9
Speed	28.6	26.0	27.1	27.2	26.2	26.2	27.2	27.0	26.7	26.9

2025 Do Something

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	778.8	754.4	796.0	735.2	707.2	736.0	704.4	730.0	2,974.4	5,942.0
Delay	12.7	13.9	12.6	11.5	12.2	16.2	12.9	13.3	13.1	13.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	13.9	12.6	11.5	12.2	16.2	12.9	13.3	13.1	13.2
Mean Queue	1.3	1.5	1.3	1.1	1.1	1.7	1.1	1.3	1.3	1.3
Max Queue	19.0	17.3	15.5	13.7	13.6	19.3	13.4	15.1	15.5	15.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.5	1.3	1.1	1.1	1.7	1.1	1.3	1.3	1.3
Total Max Queue	19.0	17.3	15.5	13.7	13.6	19.3	13.4	15.1	15.5	15.8
Speed	28.8	29.2	29.4	30.2	29.7	27.0	27.7	28.8	29.1	28.9

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	152.8	176.4	178.8	181.2	206.0	190.4	185.2	160.0	756.4	1,430.8
Delay	40.7	44.4	43.4	45.9	58.1	52.3	43.4	39.8	50.0	46.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	44.4	43.4	45.9	58.1	52.3	43.4	39.8	50.0	46.5
Mean Queue	1.6	2.1	2.0	2.1	3.2	2.5	2.1	1.6	2.5	2.2
Max Queue	8.9	9.3	9.3	9.6	11.7	11.2	9.8	9.1	10.5	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	2.1	2.0	2.1	3.2	2.5	2.1	1.6	2.5	2.2
Total Max Queue	8.9	9.3	9.3	9.6	11.7	11.2	9.8	9.1	10.5	9.9
Speed	8.6	8.9	8.6	8.5	7.1	7.8	8.9	10.0	8.0	8.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	691.6	729.6	786.4	726.4	715.2	717.2	713.2	688.8	2,945.2	5,768.4
Delay	17.5	19.7	20.5	19.6	17.9	18.6	17.0	17.0	19.2	18.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	19.7	20.5	19.6	17.9	18.6	17.0	17.0	19.2	18.6
Mean Queue	2.5	2.9	3.3	3.0	2.5	2.7	2.4	2.3	2.9	2.7
Max Queue	19.2	20.1	20.2	20.6	16.8	18.8	17.0	16.3	19.1	18.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	2.9	3.3	3.0	2.5	2.7	2.4	2.3	2.9	2.7
Total Max Queue	19.2	20.1	20.2	20.6	16.8	18.8	17.0	16.3	19.1	18.7
Speed	29.3	29.8	30.2	31.1	31.0	29.5	29.8	28.8	30.4	30.0

2025 Do Something

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	989.2	938.8	963.6	933.2	1,017.2	1,013.2	974.8	975.6	3,927.2	7,805.6
Delay	13.9	13.8	12.3	11.1	13.2	13.5	14.5	14.8	12.5	13.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.9	13.8	12.3	11.1	13.2	13.5	14.5	14.8	12.5	13.3
Mean Queue	2.1	1.9	1.7	1.4	2.0	2.1	2.2	2.2	1.8	1.9
Max Queue	21.5	18.8	18.3	15.9	20.7	20.0	18.2	20.9	18.7	19.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	1.9	1.7	1.4	2.0	2.1	2.2	2.2	1.8	1.9
Total Max Queue	21.5	18.8	18.3	15.9	20.7	20.0	18.2	20.9	18.7	19.2
Speed	34.4	33.8	34.6	33.8	34.3	35.4	34.0	33.7	34.6	34.3

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	110.0	99.6	94.4	94.0	87.6	92.8	92.0	92.4	368.8	762.8
Delay	39.5	48.0	50.3	45.7	47.7	44.5	42.1	40.3	47.1	45.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.5	48.0	50.3	45.7	47.7	44.5	42.1	40.3	47.1	45.0
Mean Queue	1.2	1.3	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.1
Max Queue	7.1	6.8	6.7	7.4	4.7	6.6	6.4	6.3	6.4	6.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.3	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.1
Total Max Queue	7.1	6.8	6.7	7.4	4.7	6.6	6.4	6.3	6.4	6.5
Speed	10.7	8.1	8.3	7.8	7.5	10.1	8.6	9.9	8.4	8.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	756.4	704.4	726.0	790.0	783.2	781.6	798.0	817.2	3,080.8	6,156.8
Delay	30.9	82.8	111.8	91.1	85.1	68.1	43.7	37.8	89.1	71.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	82.8	111.8	91.1	85.1	68.1	43.7	37.8	89.1	71.2
Mean Queue	5.2	14.6	20.4	16.0	15.5	11.6	7.5	6.2	15.9	12.6
Max Queue	27.9	39.3	48.0	43.8	42.7	40.2	29.3	29.3	43.7	38.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.2	14.6	20.4	16.0	15.5	11.6	7.5	6.2	15.9	12.6
Total Max Queue	27.9	39.3	48.0	43.8	42.7	40.2	29.3	29.3	43.7	38.2
Speed	31.2	28.2	27.6	29.0	28.9	29.4	31.1	31.4	28.7	29.5

2030 Do Something

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	628.0	659.6	745.2	654.0	634.0	642.0	629.6	662.4	2,675.2	5,254.8
Delay	9.0	10.5	12.7	10.8	10.1	10.4	10.1	12.2	11.0	10.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	10.5	12.7	10.8	10.1	10.4	10.1	12.2	11.0	10.7
Mean Queue	0.7	0.9	1.3	1.0	0.8	0.9	0.8	1.2	1.0	0.9
Max Queue	13.4	13.7	17.5	13.0	9.4	11.2	11.1	15.7	12.8	13.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.9	1.3	1.0	0.8	0.9	0.8	1.2	1.0	0.9
Total Max Queue	13.4	13.7	17.6	13.0	9.4	11.2	11.1	15.7	12.8	13.1
Speed	33.1	33.2	33.2	33.4	33.1	33.2	32.8	33.1	33.2	33.1

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	120.8	123.2	153.6	179.6	174.8	188.4	180.4	194.8	696.4	1,315.6
Delay	48.4	51.9	107.7	156.4	222.3	226.3	220.7	175.5	178.2	154.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.4	51.9	107.7	156.4	222.3	226.3	220.7	175.5	178.2	154.1
Mean Queue	1.5	1.9	4.8	7.9	10.6	10.7	10.1	8.5	8.5	7.2
Max Queue	9.1	9.4	12.4	14.2	16.7	16.3	15.7	15.0	14.9	13.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.5	1.9	4.8	7.9	10.6	10.7	10.1	8.5	8.5	7.2
Total Max Queue	9.1	9.4	12.4	14.2	16.7	16.3	15.7	15.0	14.9	13.7
Speed	7.6	7.4	6.1	4.2	3.2	2.6	2.3	3.3	4.0	4.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	738.0	506.8	534.0	434.4	429.6	452.0	501.2	596.0	1,850.0	4,192.0
Delay	70.8	172.2	278.7	346.1	413.9	378.6	390.7	281.3	354.3	298.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	172.2	278.7	346.1	413.9	378.6	390.7	281.3	354.3	298.5
Mean Queue	13.8	30.0	36.5	44.6	46.4	47.9	47.5	42.8	43.8	39.2
Max Queue	45.4	56.2	64.0	68.3	67.5	71.0	69.5	69.6	67.7	64.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	13.8	30.0	36.5	44.6	46.4	47.9	47.5	42.8	43.8	39.2
Total Max Queue	45.4	56.2	64.0	68.3	67.5	71.0	69.5	69.6	67.7	64.4
Speed	26.6	23.7	25.4	22.4	23.5	22.6	25.0	26.1	23.5	24.3

2030 Do Something

J-12 J-12: A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	814.8	814.0	788.0	786.0	833.2	676.0	729.2	687.6	3,083.2	6,128.8
Delay	11.0	14.3	12.7	14.9	12.2	12.0	15.2	11.0	13.0	12.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	14.3	12.7	14.9	12.2	12.0	15.2	11.0	13.0	12.9
Mean Queue	1.1	1.9	1.5	1.9	1.4	1.1	1.8	1.0	1.5	1.5
Max Queue	15.0	22.2	16.6	21.1	17.6	16.1	20.2	15.8	17.9	18.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.9	1.5	1.9	1.4	1.1	1.8	1.0	1.5	1.5
Total Max Queue	15.0	22.2	16.6	21.1	17.6	16.1	20.2	15.8	17.9	18.1
Speed	31.1	33.2	33.0	33.2	33.1	33.2	33.0	33.5	33.1	32.9

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	157.2	169.6	154.8	182.4	180.4	180.8	176.4	167.2	698.4	1,368.8
Delay	52.0	71.1	84.3	138.6	138.1	142.5	133.6	128.6	125.9	112.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	71.1	84.3	138.6	138.1	142.5	133.6	128.6	125.9	112.7
Mean Queue	2.2	3.3	4.3	6.0	6.7	6.6	6.7	5.3	5.9	5.2
Max Queue	10.2	11.8	12.4	13.6	14.4	14.4	13.9	12.6	13.7	13.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	3.3	4.3	6.0	6.7	6.6	6.7	5.3	5.9	5.2
Total Max Queue	10.2	11.8	12.4	13.6	14.4	14.4	13.9	12.6	13.7	13.0
Speed	7.7	6.0	5.1	3.8	3.6	3.8	3.8	5.3	4.1	4.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	680.0	655.2	662.0	506.0	601.2	628.0	594.0	575.2	2,397.2	4,901.6
Delay	26.2	156.2	186.6	325.4	274.1	233.5	270.0	276.5	254.9	222.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	156.2	186.6	325.4	274.1	233.5	270.0	276.5	254.9	222.6
Mean Queue	5.8	27.0	35.4	45.2	39.4	39.6	40.9	41.9	39.9	35.0
Max Queue	34.1	62.3	69.2	69.0	69.7	69.6	69.1	69.7	69.4	64.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.8	27.0	35.4	45.2	39.4	39.6	40.9	41.9	39.9	35.0
Total Max Queue	34.1	62.3	69.2	69.0	69.7	69.6	69.1	69.7	69.4	64.7
Speed	28.7	27.2	27.8	24.7	27.1	28.0	25.2	26.4	26.9	26.9

2030 Do Something

J-12 A171 Cargo Fleet Lane / Cranmore Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,055.2	1,012.0	1,028.8	1,078.0	1,017.6	874.0	787.6	852.0	3,998.4	7,705.2
Delay	14.9	15.5	12.7	12.4	20.7	47.5	68.5	55.8	23.3	30.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	15.5	12.7	12.4	20.7	47.5	68.5	55.8	23.3	30.1
Mean Queue	2.4	2.5	1.9	1.9	3.8	9.4	12.3	10.7	4.3	5.5
Max Queue	23.7	21.7	19.1	19.8	22.7	30.6	31.9	32.1	23.1	25.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.5	1.9	1.9	3.8	9.4	12.3	10.7	4.3	5.5
Total Max Queue	23.7	21.7	19.1	19.8	22.7	30.6	31.9	32.1	23.1	25.0
Speed	34.3	34.8	35.1	34.8	33.5	31.3	28.6	30.1	33.7	32.9

Arm Reference:	B
Name	Cranmore Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	143.2	144.0	128.0	127.6	131.2	134.0	119.6	139.6	520.8	1,067.2
Delay	52.3	64.8	52.4	54.6	59.9	62.3	66.1	64.3	57.3	59.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.3	64.8	52.4	54.6	59.9	62.3	66.1	64.3	57.3	59.3
Mean Queue	2.0	2.4	1.8	2.0	2.0	2.2	2.1	2.4	2.0	2.1
Max Queue	9.6	10.3	7.4	9.0	7.2	8.3	8.4	9.3	8.0	8.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	2.4	1.8	2.0	2.0	2.2	2.1	2.4	2.0	2.1
Total Max Queue	9.6	10.3	7.4	9.0	7.2	8.3	8.4	9.3	8.0	8.6
Speed	8.2	6.6	8.1	7.6	7.4	7.0	7.1	6.7	7.5	7.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	716.0	656.4	678.4	752.0	752.4	646.8	680.0	741.6	2,829.6	5,623.6
Delay	80.2	172.9	211.8	181.3	177.1	186.4	208.2	184.6	189.2	176.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.2	172.9	211.8	181.3	177.1	186.4	208.2	184.6	189.2	176.9
Mean Queue	16.0	30.6	36.5	33.6	31.5	32.5	32.3	32.2	33.5	31.0
Max Queue	47.5	61.3	68.1	68.0	66.7	66.4	63.6	62.5	67.3	63.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	16.0	30.6	36.5	33.6	31.5	32.5	32.3	32.2	33.5	31.0
Total Max Queue	47.5	61.3	68.1	68.0	66.7	66.4	63.6	62.5	67.3	63.5
Speed	29.7	29.0	29.5	29.6	29.9	28.3	30.2	31.2	29.3	29.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	460.4	476.8	641.2	546.8	503.2	463.6	470.0	412.8	2,154.8	3,974.8
Delay	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	48.2	48.6	47.4	48.4	47.6	47.8	48.0	48.7	47.8	48.0

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Delay Virtual Queue	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Delay	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	628.4	593.2	614.4	635.2	589.6	609.2	643.2	559.2	2,448.4	4,872.4
Delay	1.3	1.3	1.2	1.3	1.3	1.2	1.2	1.3	1.2	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.3	1.2	1.3	1.3	1.2	1.2	1.3	1.2	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.6
Max Queue	0.1	0.4	0.0	0.1	0.0	0.1	0.0	7.5	0.1	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.6
Total Max Queue	0.1	0.4	0.0	0.1	0.0	0.1	0.0	7.5	0.1	0.9
Speed	49.9	50.1	50.4	50.1	50.0	50.2	50.3	50.0	50.2	50.1

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	597.6	545.2	579.6	625.6	607.6	554.4	563.2	569.2	2,367.2	4,642.4
Delay	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	47.7	48.5	47.5	47.1	47.8	47.9	48.4	48.1	47.6	47.9

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Delay Virtual Queue	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Delay	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	548.4	517.6	564.8	602.0	534.4	528.0	499.6	475.2	2,229.2	4,270.0
Delay	1.3	1.1	1.2	1.3	1.2	1.1	1.1	1.1	1.2	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.1	1.2	1.3	1.2	1.1	1.1	1.1	1.2	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.1	0.1	0.4	0.0	0.0	0.0	0.0	0.1	0.1
Speed	50.1	50.3	50.3	50.0	50.4	50.4	50.4	50.4	50.3	50.3

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	702.0	580.4	502.0	510.0	545.2	542.4	582.8	494.4	2,099.6	4,459.2
Delay	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	47.8	47.5	48.6	49.0	48.0	47.9	48.1	49.0	48.4	48.2

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Delay Virtual Queue	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Delay	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	554.8	485.2	507.6	374.4	401.2	377.2	432.4	400.0	1,660.4	3,532.8
Delay	1.4	1.4	1.2	1.0	1.2	1.1	1.2	1.1	1.1	1.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.4	1.2	1.0	1.2	1.1	1.2	1.1	1.1	1.2
Mean Queue	0.0	0.0	0.0	5.1	13.8	13.8	13.8	13.8	8.2	7.6
Max Queue	1.0	0.2	0.0	13.7	14.2	13.8	13.8	13.9	10.4	9.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	5.1	13.8	13.8	13.8	13.8	8.2	7.6
Total Max Queue	1.0	0.2	0.0	13.7	14.2	13.8	13.8	13.9	10.4	9.0
Speed	50.0	49.8	50.2	50.5	50.3	50.4	50.5	50.4	50.3	50.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	495.2	541.6	661.6	591.2	569.2	515.6	516.8	474.4	2,337.6	4,365.6
Delay	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.3	0.9	0.6	0.7	0.3	0.4	0.4	0.6	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.3	0.9	0.6	0.7	0.3	0.4	0.4	0.6	0.5
Speed	46.1	47.4	44.5	45.5	45.0	46.2	46.8	46.9	45.3	46.0

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	39.2	36.0	58.0	42.0	52.0	37.2	50.4	43.2	189.2	358.0
Delay	0.3	0.1	0.2	0.2	0.1	0.6	0.3	0.3	0.3	0.3
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	0.3	0.2	0.2	0.3	0.1	0.7	0.4	0.3	0.3	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.1	0.2	0.2	0.0	0.5	0.3	0.3	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.4	0.4	0.5	0.4	0.4	0.3	0.5	0.5	0.4	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.5	0.7	0.6	0.4	0.8	0.8	0.8	0.6	0.7
Speed	49.8	49.0	50.2	49.9	51.0	48.5	49.4	49.9	49.9	49.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	615.6	628.8	632.0	570.0	593.6	690.4	720.0	682.4	2,486.0	5,132.8
Delay	1.4	1.4	1.6	1.3	1.5	1.5	1.8	1.6	1.5	1.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.4	1.6	1.3	1.5	1.5	1.8	1.6	1.5	1.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.3	0.2	0.0	0.0	0.0	0.2	0.2	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.3	0.2	0.0	0.0	0.0	0.2	0.2	0.1	0.1
Speed	50.1	50.1	49.8	50.0	49.9	49.8	49.1	49.6	49.9	49.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	564.0	540.4	516.4	589.6	584.0	510.4	534.4	485.6	2,200.4	4,324.8
Delay	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.9	0.7	0.4	0.8	0.8	0.7	0.6	0.6	0.7	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.7	0.4	0.8	0.8	0.7	0.6	0.6	0.7	0.7
Speed	45.3	46.2	46.6	45.4	44.6	46.0	46.0	46.5	45.7	45.8

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	52.8	49.6	43.6	52.8	72.0	42.4	63.2	43.6	210.8	420.0
Delay	0.6	0.4	0.2	0.3	0.2	0.2	0.3	0.1	0.2	0.3
Delay Virtual Queue	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay	0.7	0.4	0.2	0.3	0.2	0.3	0.3	0.1	0.3	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.3	0.2	0.2	0.2	0.1	0.2	0.0	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.4	0.5	0.2	0.2	0.7	0.4	0.7	0.3	0.4	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.1	0.8	0.4	0.4	0.9	0.5	0.9	0.3	0.6	0.7
Speed	47.0	49.4	50.2	49.8	49.3	50.9	49.5	51.2	50.0	49.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	674.4	679.2	711.2	744.0	714.8	691.2	616.0	609.2	2,861.2	5,440.0
Delay	1.6	1.6	1.7	1.6	1.6	1.7	1.4	1.5	1.6	1.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.6	1.7	1.6	1.6	1.7	1.4	1.5	1.6	1.6
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.4	0.1	0.1	0.0	0.1	0.1	0.2	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.4	0.1	0.1	0.0	0.1	0.1	0.2	0.1
Speed	49.4	49.6	49.3	49.6	49.4	49.6	49.7	49.5	49.5	49.5

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	634.4	593.2	551.2	584.8	639.6	580.4	583.2	596.8	2,356.0	4,763.6
Delay	0.3	0.2	0.2	0.5	0.9	1.4	2.2	2.3	0.7	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.3	0.2	0.2	0.5	0.9	1.4	2.2	2.3	0.7	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.1
Max Queue	1.0	0.6	0.7	0.7	0.7	1.0	1.0	0.8	0.8	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.1
Total Max Queue	1.0	0.6	0.7	0.7	0.7	1.0	1.0	0.8	0.8	0.8
Speed	44.6	44.7	45.2	44.5	41.6	41.5	38.3	38.4	43.2	42.5

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	89.2	77.2	72.4	89.2	74.4	81.6	92.8	67.6	317.6	644.4
Delay	0.1	0.1	0.1	1.6	2.5	3.5	7.8	8.0	1.9	2.8
Delay Virtual Queue	0.1	0.1	0.0	0.3	0.2	0.7	1.5	2.7	0.3	0.7
Total Delay	0.2	0.2	0.1	1.9	2.7	4.2	9.3	10.7	2.2	3.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.1
Max Queue	0.1	0.0	0.0	1.0	0.8	0.7	1.4	1.2	0.6	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.6	0.4	0.6	0.9	1.1	1.3	1.1	0.8	0.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.1
Total Max Queue	0.9	0.6	0.4	1.6	1.7	1.8	2.7	2.3	1.4	1.5
Speed	50.4	50.2	50.4	47.3	44.0	43.9	36.7	36.7	46.4	45.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	703.2	537.6	653.2	583.2	602.8	591.6	730.0	642.4	2,430.8	5,044.0
Delay	1.7	1.6	1.7	1.5	1.5	1.6	1.6	1.8	1.6	1.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	1.6	1.7	1.5	1.5	1.6	1.6	1.8	1.6	1.6
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.0	0.0	0.3	0.2	0.1	0.6	0.9	0.2	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.0	0.0	0.3	0.2	0.1	0.6	0.9	0.2	0.3
Speed	49.3	49.5	49.1	49.9	49.8	49.8	49.5	49.4	49.7	49.6

2030 Do Minimum

J-13 J-13: A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	502.4	530.4	665.2	628.8	614.0	596.0	524.0	515.6	2,504.0	4,576.4
Delay	0.1	0.1	0.2	0.1	0.6	0.2	0.3	0.2	0.3	0.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.2	0.1	0.6	0.2	0.3	0.2	0.3	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.0	0.3	0.9	0.7	0.8	0.4	0.6	0.7	0.7	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.0	0.3	0.9	0.7	0.8	0.4	0.6	0.7	0.7	0.7
Speed	46.6	46.9	44.5	45.7	43.8	45.5	45.5	46.0	44.9	45.5

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	36.4	49.2	65.2	44.4	48.8	37.6	44.0	47.6	196.0	373.2
Delay	0.2	0.1	0.4	0.6	1.3	1.0	1.0	0.9	0.8	0.7
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1
Total Delay	0.2	0.2	0.5	0.6	1.4	1.1	1.2	1.0	0.9	0.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.1	0.5	0.5	0.4	0.3	0.7	0.4	0.4	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.2	0.6	0.5	0.4	0.4	0.3	0.5	0.5	0.4	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.6	0.7	1.0	0.9	0.8	0.6	1.2	0.9	0.8	0.8
Speed	52.0	50.2	48.6	48.7	48.3	48.3	46.6	48.5	48.5	48.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	598.0	615.6	605.2	612.8	645.6	656.0	742.8	696.8	2,519.6	5,172.8
Delay	1.4	1.7	1.3	1.6	1.5	1.5	1.6	1.6	1.5	1.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.7	1.3	1.6	1.5	1.5	1.6	1.6	1.5	1.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.4	0.1	0.6	0.1	0.0	0.1	0.2	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.4	0.1	0.6	0.1	0.0	0.1	0.2	0.2	0.2
Speed	49.9	49.3	50.2	49.6	49.6	49.5	49.5	49.7	49.7	49.7

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	604.0	564.4	518.8	622.8	594.0	551.6	518.4	516.8	2,287.2	4,490.8
Delay	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.9	0.7	0.5	0.7	0.8	0.7	0.5	0.4	0.7	0.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.7	0.5	0.7	0.8	0.7	0.5	0.4	0.7	0.7
Speed	45.6	46.2	46.3	45.4	44.7	45.6	46.2	46.6	45.5	45.8

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	52.0	46.0	44.0	57.2	62.8	47.2	65.6	43.6	211.2	418.4
Delay	0.5	0.5	0.1	0.5	0.1	0.1	0.3	0.1	0.2	0.3
Delay Virtual Queue	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.6	0.1	0.6	0.1	0.1	0.3	0.1	0.2	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.6	0.0	0.3	0.1	0.0	0.4	0.0	0.1	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.3	0.4	0.3	0.6	0.2	0.4	0.6	0.3	0.4	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.8	1.0	0.3	0.9	0.3	0.4	1.0	0.3	0.5	0.6
Speed	49.0	47.4	51.4	48.9	50.2	50.5	49.9	50.9	50.2	49.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	749.2	784.8	749.2	819.6	731.6	681.6	668.0	677.6	2,982.0	5,861.6
Delay	1.9	1.8	1.7	1.8	1.7	1.6	1.5	1.5	1.7	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	1.8	1.7	1.8	1.7	1.6	1.5	1.5	1.7	1.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	1.7	0.7	0.2	0.3	0.1	0.6	0.1	0.1	0.3	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.7	0.7	0.2	0.3	0.1	0.6	0.1	0.1	0.3	0.5
Speed	49.0	49.1	49.4	49.1	49.4	49.7	49.6	49.6	49.4	49.4

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-13 **J-13: A171 Cargo Fleet Lane / Minor Access Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	678.4	601.6	578.4	564.4	581.6	527.6	537.6	514.4	2,252.0	4,584.0
Delay	0.4	0.9	1.5	2.8	3.7	5.0	5.6	6.4	3.3	3.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.9	1.5	2.8	3.7	5.0	5.6	6.4	3.3	3.3
Mean Queue	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.2	0.2
Max Queue	1.0	0.9	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.2	0.2
Total Max Queue	1.0	0.9	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Speed	43.6	42.6	40.2	37.6	32.6	31.6	28.2	27.7	35.5	35.5

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	93.2	77.6	75.2	85.2	84.4	92.4	102.0	80.8	337.2	690.8
Delay	0.7	2.1	3.9	7.7	9.3	15.0	15.4	18.0	9.0	9.0
Delay Virtual Queue	0.1	0.2	0.3	1.0	1.1	2.6	5.4	3.6	1.3	1.7
Total Delay	0.8	2.3	4.1	8.7	10.4	17.7	20.8	21.6	10.2	10.7
Mean Queue	0.0	0.0	0.1	0.2	0.2	0.4	0.4	0.4	0.2	0.2
Max Queue	0.4	0.4	0.9	1.4	1.9	2.5	2.9	2.4	1.7	1.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
Max Virtual Queue	0.8	0.7	1.0	0.8	1.3	2.0	2.3	1.6	1.3	1.3
Total Mean Queue	0.0	0.0	0.1	0.2	0.2	0.5	0.5	0.5	0.2	0.2
Total Max Queue	1.2	1.1	1.9	2.2	3.2	4.5	5.2	4.0	3.0	2.9
Speed	48.5	44.9	41.6	33.5	29.7	22.4	20.0	18.9	31.8	32.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	718.0	638.0	612.8	652.4	679.6	654.4	755.2	716.0	2,599.2	5,426.4
Delay	1.9	1.9	1.7	1.7	1.8	1.8	1.7	2.8	1.7	1.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	1.9	1.7	1.7	1.8	1.8	1.7	2.8	1.7	1.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Max Queue	1.1	0.6	1.1	0.9	0.5	2.2	1.3	3.7	1.2	1.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Max Queue	1.1	0.6	1.1	0.9	0.5	2.2	1.3	3.7	1.2	1.4
Speed	49.2	49.0	49.6	49.6	49.3	49.2	49.5	48.3	49.4	49.2

2025 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	484.0	555.2	709.2	633.6	558.4	573.2	540.8	499.6	2,474.4	4,554.0
Delay	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.6	0.4	0.6	0.7	0.8	0.4	0.4	0.3	0.6	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.6	0.4	0.6	0.7	0.8	0.4	0.4	0.3	0.6	0.5
Speed	47.0	47.3	45.4	45.0	44.9	46.7	45.8	47.3	45.5	46.1

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	44.8	36.4	51.6	54.8	55.2	32.0	54.0	47.6	193.6	376.4
Delay	0.4	0.1	0.7	0.2	0.5	0.2	0.5	0.3	0.4	0.4
Delay Virtual Queue	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Total Delay	0.4	0.1	0.7	0.3	0.6	0.2	0.5	0.3	0.5	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.1	0.4	0.2	0.5	0.1	0.6	0.2	0.3	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.4	0.3	0.7	0.5	0.1	0.5	0.4	0.4	0.4
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.3	0.5	0.7	0.9	1.0	0.2	1.1	0.6	0.7	0.8
Speed	48.7	50.2	48.5	50.6	47.5	50.8	48.6	49.4	49.4	49.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	623.6	625.6	633.6	593.6	628.8	714.0	730.4	692.8	2,570.0	5,242.4
Delay	1.4	1.4	1.3	1.4	1.4	1.6	1.6	1.5	1.4	1.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.4	1.3	1.4	1.4	1.6	1.6	1.5	1.4	1.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.3	0.1	0.2	0.1	0.4	0.0	0.0	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.3	0.1	0.2	0.1	0.4	0.0	0.0	0.2	0.2
Speed	49.8	49.8	50.1	49.9	49.8	49.6	49.6	50.0	49.8	49.8

2025 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	576.4	540.8	573.6	598.4	601.6	550.8	511.6	542.0	2,324.4	4,495.2
Delay	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.8	0.5	0.6	0.5	0.8	0.5	0.6	0.4	0.6	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.8	0.5	0.6	0.5	0.8	0.5	0.6	0.4	0.6	0.6
Speed	46.1	46.6	45.9	45.6	45.7	46.1	46.4	46.5	45.8	46.1

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	47.2	45.2	46.8	43.2	59.6	42.8	66.0	41.6	192.4	392.4
Delay	0.2	0.9	0.4	0.3	0.8	0.1	0.2	0.1	0.4	0.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Total Delay	0.2	0.9	0.4	0.3	0.8	0.1	0.3	0.1	0.4	0.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.6	0.5	0.4	0.2	0.4	0.1	0.3	0.0	0.3	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.4	0.3	0.3	0.3	0.5	0.1	0.5	0.2	0.3	0.3
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.0	0.8	0.7	0.5	0.9	0.2	0.8	0.2	0.6	0.6
Speed	50.1	47.8	48.7	50.1	48.1	50.7	48.4	50.8	49.4	49.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	705.2	796.4	798.8	786.0	768.0	738.0	704.0	671.6	3,090.8	5,968.0
Delay	1.7	1.7	1.7	1.8	1.7	1.7	1.6	1.6	1.7	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	1.7	1.7	1.8	1.7	1.7	1.6	1.6	1.7	1.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.4	0.1	0.6	0.0	0.5	0.6	0.1	0.3	0.4	0.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.1	0.6	0.0	0.5	0.6	0.1	0.3	0.4	0.3
Speed	49.4	49.2	49.3	49.1	49.2	49.2	49.5	49.5	49.2	49.3

2025 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	654.8	586.0	541.2	565.6	631.2	578.4	546.4	622.8	2,316.4	4,726.4
Delay	0.2	0.5	1.0	1.3	1.4	2.6	4.2	3.9	1.6	1.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.5	1.0	1.3	1.4	2.6	4.2	3.9	1.6	1.9
Mean Queue	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1
Max Queue	0.8	0.8	0.7	0.7	1.0	0.9	1.0	1.0	0.8	0.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.1	0.1
Total Max Queue	0.8	0.8	0.7	0.7	1.0	0.9	1.0	1.0	0.8	0.9
Speed	44.5	43.8	43.0	42.1	40.1	36.8	32.5	33.9	40.5	39.7

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	95.2	77.6	72.8	88.8	90.4	86.8	103.6	64.4	338.8	679.6
Delay	0.1	0.7	1.5	2.2	5.1	7.3	11.2	11.0	4.0	4.8
Delay Virtual Queue	0.1	0.1	0.4	0.1	0.9	1.3	2.3	1.1	0.7	0.8
Total Delay	0.2	0.8	1.9	2.3	6.1	8.6	13.5	12.0	4.7	5.6
Mean Queue	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.2	0.1	0.1
Max Queue	0.0	0.3	0.4	0.6	1.1	1.8	1.9	1.6	1.0	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Max Virtual Queue	0.9	0.7	0.9	0.7	0.9	1.5	1.7	0.9	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.2	0.1	0.1
Total Max Queue	0.9	1.0	1.3	1.3	2.0	3.3	3.6	2.5	2.0	2.0
Speed	49.3	48.8	46.1	44.2	39.5	33.0	27.5	29.1	40.7	39.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	702.0	622.4	664.8	614.8	646.4	660.4	753.2	638.8	2,586.4	5,302.8
Delay	1.7	1.9	1.6	1.8	1.6	1.5	1.7	1.7	1.6	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	1.9	1.6	1.8	1.6	1.5	1.7	1.7	1.6	1.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.6	0.1	0.3	0.8	0.2	0.4	0.4	0.7	0.4	0.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.6	0.1	0.3	0.8	0.2	0.4	0.4	0.7	0.4	0.4
Speed	49.3	49.2	49.5	49.3	49.5	49.7	49.4	49.3	49.5	49.4

2030 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	525.6	554.4	664.8	601.2	586.0	551.2	552.4	517.2	2,403.2	4,552.8
Delay	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.1	0.2	0.2	0.2	0.3	0.2	0.4	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.7	0.7	0.9	0.9	0.7	0.7	0.9	0.7	0.8	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.7	0.9	0.9	0.7	0.7	0.9	0.7	0.8	0.8
Speed	46.3	47.3	45.1	45.4	44.9	45.3	45.7	44.9	45.2	45.6

Arm Reference:	B
Name	Minor Access Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	44.8	44.8	58.4	50.8	50.8	55.6	52.0	64.0	215.6	421.2
Delay	0.5	0.5	6.7	21.2	0.4	13.8	13.4	12.4	10.5	8.8
Delay Virtual Queue	0.1	0.1	1.2	5.5	0.0	8.8	2.5	5.1	3.9	3.0
Total Delay	0.5	0.6	7.9	26.7	0.4	22.6	15.9	17.5	14.4	11.8
Mean Queue	0.0	0.0	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1
Max Queue	0.3	0.5	0.8	1.1	0.6	1.1	1.2	0.9	0.9	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Max Virtual Queue	0.4	0.5	0.8	0.6	0.7	0.7	0.8	0.9	0.7	0.7
Total Mean Queue	0.0	0.0	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.2
Total Max Queue	0.7	1.0	1.6	1.7	1.3	1.8	2.0	1.8	1.6	1.5
Speed	49.2	46.5	46.1	41.9	47.3	40.0	39.6	38.6	43.8	43.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	678.0	632.8	634.8	523.2	546.0	597.6	642.8	693.2	2,301.6	4,948.4
Delay	1.4	2.1	32.4	67.4	122.4	152.9	171.2	145.8	93.8	87.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	2.1	32.4	67.4	122.4	152.9	171.2	145.8	93.8	87.7
Mean Queue	0.0	1.1	6.8	14.0	20.8	23.7	26.0	25.4	16.3	14.9
Max Queue	0.2	5.7	12.8	26.6	31.9	34.6	40.7	41.3	26.5	24.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	1.1	6.8	14.0	20.8	23.7	26.0	25.4	16.3	14.9
Total Max Queue	0.2	5.7	12.8	26.6	31.9	34.6	40.7	41.3	26.5	24.5
Speed	49.9	49.6	45.9	41.7	37.6	33.3	28.3	25.6	39.6	39.1

2030 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	620.8	584.0	545.2	630.4	628.4	567.2	552.0	522.0	2,371.2	4,650.0
Delay	0.1	0.1	0.2	0.2	0.4	0.5	0.3	0.2	0.3	0.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.2	0.2	0.4	0.5	0.3	0.2	0.3	0.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.9	0.4	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.4	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8
Speed	46.5	46.8	45.3	44.9	44.9	44.6	44.8	45.7	44.9	45.4

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	47.6	46.4	44.4	52.8	64.8	48.8	65.6	42.0	210.8	412.4
Delay	1.0	0.8	2.9	2.3	13.0	18.6	14.6	13.6	9.2	8.5
Delay Virtual Queue	0.1	0.0	0.0	0.0	10.2	5.9	5.7	0.7	4.0	3.0
Total Delay	1.1	0.8	3.0	2.3	23.3	24.5	20.3	14.4	13.3	11.4
Mean Queue	0.0	0.0	0.0	0.0	0.3	0.3	0.2	0.2	0.2	0.1
Max Queue	0.7	0.4	0.6	0.9	1.9	1.6	1.7	1.4	1.3	1.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.1
Max Virtual Queue	0.8	0.3	0.3	0.3	1.4	1.1	1.5	0.4	0.8	0.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.5	0.4	0.3	0.2	0.2	0.2
Total Max Queue	1.5	0.7	0.9	1.2	3.3	2.7	3.2	1.8	2.0	1.9
Speed	47.4	48.5	45.0	44.8	35.2	30.8	31.5	34.6	38.9	39.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	804.8	933.2	904.4	730.0	662.4	750.0	690.4	602.4	3,046.8	6,077.6
Delay	1.8	3.3	9.3	32.0	210.3	172.3	225.9	269.2	106.0	114.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.8	3.3	9.3	32.0	210.3	172.3	225.9	269.2	106.0	114.4
Mean Queue	0.0	0.3	1.5	10.8	35.2	35.7	40.1	43.9	20.8	20.9
Max Queue	0.5	3.2	6.9	35.5	60.1	57.9	64.3	65.7	40.1	37.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.3	1.5	10.8	35.2	35.7	40.1	43.9	20.8	20.9
Total Max Queue	0.5	3.2	6.9	35.5	60.1	57.9	64.3	65.7	40.1	37.1
Speed	49.0	47.8	45.3	41.0	17.2	13.0	10.0	9.9	29.1	29.1

2030 Do Something

J-13 A171 Cargo Fleet Lane / Minor Access Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	721.6	620.0	534.0	459.6	465.2	474.4	424.8	389.2	1,933.2	4,088.8
Delay	0.7	2.0	4.2	6.8	6.8	6.9	7.5	8.6	6.2	5.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	2.0	4.2	6.8	6.8	6.9	7.5	8.6	6.2	5.5
Mean Queue	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Max Queue	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.3
Total Max Queue	1.0	1.0	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Speed	43.6	37.5	33.1	27.9	26.4	27.3	25.7	26.3	28.7	30.7

Arm Reference:	B
Name	Minor Access Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	85.2	84.4	62.8	103.2	85.6	84.0	98.4	73.6	335.6	677.2
Delay	1.9	5.5	12.8	18.3	16.0	20.0	24.6	25.5	16.8	15.7
Delay Virtual Queue	0.3	0.5	0.8	12.5	5.5	4.4	8.1	5.2	5.8	4.8
Total Delay	2.1	6.0	13.6	30.9	21.5	24.4	32.8	30.7	22.6	20.5
Mean Queue	0.0	0.1	0.2	0.5	0.3	0.5	0.6	0.5	0.4	0.4
Max Queue	1.1	1.5	2.1	2.7	2.5	2.5	2.6	2.4	2.5	2.2
Mean Virtual Queue	0.0	0.0	0.0	0.4	0.1	0.1	0.2	0.1	0.2	0.1
Max Virtual Queue	0.9	0.8	0.9	3.3	1.7	1.5	2.3	2.0	1.9	1.7
Total Mean Queue	0.0	0.1	0.2	0.9	0.4	0.6	0.9	0.6	0.5	0.5
Total Max Queue	2.0	2.3	3.0	6.0	4.2	4.0	4.9	4.4	4.3	3.9
Speed	45.4	37.8	26.4	21.4	19.5	17.2	14.9	14.2	21.1	24.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	763.2	700.8	703.2	677.6	756.4	724.8	772.8	749.2	2,862.0	5,848.0
Delay	1.7	2.3	2.8	1.7	2.0	1.9	35.1	14.5	2.1	7.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	2.3	2.8	1.7	2.0	1.9	35.1	14.5	2.1	7.1
Mean Queue	0.0	0.0	0.2	0.0	0.0	0.0	7.5	1.5	0.1	1.0
Max Queue	0.4	0.8	3.4	0.7	1.3	1.3	28.0	12.1	1.7	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.2	0.0	0.0	0.0	7.5	1.5	0.1	1.0
Total Max Queue	0.4	0.8	3.4	0.7	1.3	1.3	28.0	12.1	1.7	5.5
Speed	49.3	48.4	48.6	49.4	49.0	49.0	40.8	43.8	49.0	47.5

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	35.6	45.2	43.2	56.4	56.8	42.4	41.6	46.0	198.8	367.2
Delay	2.2	12.7	19.5	9.9	26.9	15.7	8.8	30.1	18.0	16.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.2	12.8	19.6	10.0	26.9	15.7	8.8	30.1	18.0	16.0
Mean Queue	0.0	0.1	0.1	0.1	0.3	0.4	1.3	2.5	0.2	0.6
Max Queue	0.2	0.4	0.2	0.8	0.8	1.1	2.4	3.2	0.7	1.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.2	0.1	0.3	0.2	0.0	0.1	0.2	0.2	0.1
Total Mean Queue	0.0	0.1	0.1	0.1	0.3	0.4	1.3	2.5	0.2	0.6
Total Max Queue	0.2	0.6	0.3	1.1	1.0	1.1	2.5	3.4	0.9	1.2
Speed	36.0	32.2	35.9	33.2	32.0	35.2	37.0	32.0	34.1	34.1

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,406.0	1,508.8	1,679.6	1,704.8	1,482.4	1,427.6	1,341.6	1,135.2	6,294.4	11,686.0
Delay	15.1	17.2	21.6	32.5	54.6	66.9	48.3	16.3	43.9	35.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	15.1	17.3	21.7	32.6	54.7	67.0	48.4	16.4	44.0	35.2
Mean Queue	1.4	1.7	2.6	4.5	18.1	26.3	22.4	18.4	12.9	12.0
Max Queue	7.0	7.9	12.3	19.0	38.9	36.4	31.5	23.2	26.7	22.5
Mean Virtual Queue	0.0	0.0	0.0	0.1	0.3	25.0	60.4	91.9	6.4	20.5
Max Virtual Queue	2.2	1.7	2.4	2.6	6.5	45.6	79.2	108.6	14.3	29.2
Total Mean Queue	1.4	1.7	2.6	4.5	18.4	51.3	82.8	110.3	19.2	32.5
Total Max Queue	9.2	9.6	14.7	21.6	45.4	82.0	110.7	131.8	40.9	51.8
Speed	28.7	24.7	21.9	19.0	19.8	21.4	23.5	26.9	20.5	23.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	871.6	1,087.2	999.2	984.8	926.4	883.2	834.0	766.4	3,793.6	7,352.8
Delay	13.8	15.4	15.0	14.8	14.5	15.7	15.8	14.5	15.0	14.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	15.4	15.0	14.8	14.5	15.7	15.8	14.5	15.0	14.9
Mean Queue	1.0	1.3	1.2	1.1	1.1	1.1	1.0	0.9	1.1	1.1
Max Queue	5.0	4.8	4.8	5.0	4.8	4.9	4.2	4.2	4.9	4.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	1.3	1.2	1.1	1.1	1.1	1.0	0.9	1.1	1.1
Total Max Queue	5.0	4.8	4.8	5.0	4.8	4.9	4.2	4.2	4.9	4.7
Speed	23.0	19.8	20.8	20.7	21.1	19.8	20.0	22.3	20.6	20.9

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,423.6	1,582.0	1,512.0	1,432.0	1,366.8	1,341.6	1,260.8	1,221.6	5,652.4	11,140.4
Delay	23.8	59.9	63.2	20.4	30.2	43.2	75.8	92.4	39.2	49.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	0.0	0.5
Total Delay	23.9	59.9	63.2	20.4	30.2	43.2	75.9	97.1	39.2	50.3
Mean Queue	2.4	8.2	6.2	2.1	4.2	7.3	11.9	12.6	4.9	6.6
Max Queue	8.2	17.0	15.7	7.5	11.5	16.1	18.4	18.8	12.7	14.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	2.7	16.8	0.0	2.2
Max Virtual Queue	1.0	1.3	0.9	1.0	1.0	1.1	10.6	24.3	1.0	4.7
Total Mean Queue	2.4	8.2	6.2	2.1	4.2	7.3	14.6	29.4	4.9	8.8
Total Max Queue	9.2	18.3	16.6	8.5	12.5	17.2	29.0	43.1	13.7	18.7
Speed	50.3	36.8	38.9	51.9	47.1	43.8	39.6	39.8	45.4	43.7

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	144.0	187.6	142.8	177.2	163.2	154.4	156.0	136.0	637.6	1,261.2
Delay	5.7	7.5	6.1	6.1	11.2	10.2	6.5	5.9	8.4	7.5
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1
Total Delay	5.8	7.6	6.2	6.2	11.4	10.3	6.5	5.9	8.5	7.6
Mean Queue	0.2	0.3	0.2	0.3	1.4	1.7	1.5	1.5	0.9	0.9
Max Queue	3.5	3.7	2.8	3.8	4.5	4.8	4.5	4.1	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.6	3.9	7.5	11.4	1.1	2.7
Max Virtual Queue	0.7	0.9	0.8	0.9	3.1	6.5	10.7	13.4	2.8	4.4
Total Mean Queue	0.2	0.3	0.2	0.3	1.9	5.6	9.0	12.9	2.0	3.6
Total Max Queue	4.2	4.6	3.6	4.7	7.6	11.3	15.2	17.5	6.8	8.4
Speed	35.1	32.0	34.6	34.7	33.2	34.7	34.1	34.9	34.3	34.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	77.2	54.4	54.0	63.6	48.8	34.4	44.0	49.2	200.8	425.6
Delay	25.7	24.6	47.5	49.6	30.5	18.1	54.2	42.2	36.4	36.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.7	24.6	47.5	49.6	30.5	18.1	54.3	42.2	36.4	36.5
Mean Queue	0.2	0.2	0.5	0.4	0.2	0.1	0.3	0.3	0.3	0.3
Max Queue	1.5	1.1	1.8	1.5	1.2	0.4	1.0	1.5	1.2	1.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.2	0.1	0.4	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Total Mean Queue	0.2	0.2	0.5	0.4	0.2	0.1	0.3	0.3	0.3	0.3
Total Max Queue	1.7	1.2	2.2	1.6	1.3	0.5	1.1	1.6	1.4	1.4
Speed	15.7	17.3	11.8	14.2	15.8	22.0	18.7	10.2	16.0	15.8

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	822.4	840.4	834.4	832.8	838.0	782.4	804.4	769.2	3,287.6	6,524.0
Delay	16.0	16.6	16.1	16.3	16.8	16.4	16.5	15.5	16.4	16.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	16.6	16.1	16.3	16.8	16.4	16.6	15.5	16.4	16.3
Mean Queue	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0	1.0
Max Queue	4.5	4.2	4.0	4.2	4.2	4.0	4.2	4.0	4.1	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.3	1.2	1.0	1.2	1.3	1.5	1.3	1.2	1.3
Total Mean Queue	1.0	1.0	1.0	1.0	1.0	0.9	1.0	0.9	1.0	1.0
Total Max Queue	5.8	5.5	5.2	5.2	5.4	5.3	5.7	5.3	5.3	5.4
Speed	26.4	26.4	27.3	27.1	25.1	26.0	26.5	27.7	26.4	26.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	760.8	749.6	854.0	814.8	851.6	798.8	777.2	801.6	3,319.2	6,408.4
Delay	13.2	13.0	14.2	13.5	12.8	13.3	13.0	13.1	13.4	13.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	13.0	14.2	13.5	12.8	13.3	13.0	13.1	13.4	13.3
Mean Queue	0.8	0.8	1.0	0.9	0.9	0.8	0.8	0.8	0.9	0.8
Max Queue	4.4	4.2	4.7	4.3	4.7	4.2	3.8	4.0	4.5	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.8	0.8	1.0	0.9	0.9	0.8	0.8	0.8	0.9	0.8
Total Max Queue	4.4	4.2	4.7	4.3	4.7	4.2	3.8	4.0	4.5	4.3
Speed	22.8	23.4	21.8	22.5	23.7	22.6	23.1	23.7	22.6	22.9

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,255.2	1,305.2	1,388.0	1,448.4	1,359.2	1,402.0	1,442.8	1,446.8	5,597.6	11,047.6
Delay	20.6	20.5	25.6	25.0	21.3	27.6	47.9	52.6	24.9	29.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	20.5	25.6	25.0	21.4	27.7	47.9	52.6	24.9	29.6
Mean Queue	1.8	1.9	2.6	2.6	2.0	2.9	5.4	5.5	2.5	3.0
Max Queue	7.4	7.0	7.9	8.1	7.4	8.3	12.4	12.5	7.9	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.3	1.0	1.0	1.0	1.3	1.1	1.1	1.1
Total Mean Queue	1.8	1.9	2.6	2.6	2.0	2.9	5.4	5.5	2.5	3.0
Total Max Queue	8.4	8.1	9.2	9.1	8.4	9.3	13.7	13.6	9.0	9.9
Speed	51.7	51.9	48.2	49.1	51.4	47.9	40.4	39.6	49.1	47.7

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	226.0	207.2	232.8	234.8	243.2	236.0	249.2	212.4	946.8	1,841.6
Delay	5.0	5.6	6.1	5.6	5.4	5.5	5.9	6.0	5.6	5.6
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	5.0	5.7	6.1	5.7	5.4	5.5	5.9	6.0	5.7	5.7
Mean Queue	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Max Queue	4.3	3.4	3.7	3.5	3.1	4.1	4.5	3.5	3.6	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	0.9	1.2	1.0	1.3	1.1	1.1	1.0	1.2	1.1
Total Mean Queue	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Max Queue	5.5	4.3	4.9	4.5	4.4	5.2	5.6	4.5	4.8	4.9
Speed	37.0	35.2	34.4	35.3	35.7	35.9	34.7	34.9	35.3	35.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-14 A66 / A171 Carqo Fleet Lane Througabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	133.6	156.8	98.8	40.4	11.2	41.2	141.6	254.8	191.6	878.4
Delay	248.8	483.2	373.9	742.1	2,736.9	2,079.8	1,057.3	435.0	1,483.2	1,071.1
Delay Virtual Queue	0.1	132.0	128.4	413.6	99.9	622.8	1,053.8	1,242.8	316.2	445.5
Total Delay	248.8	615.2	502.4	1,155.7	2,836.9	2,702.5	2,111.1	1,677.8	1,799.4	1,516.6
Mean Queue	14.6	13.7	11.6	20.2	28.1	28.4	26.5	18.0	22.1	20.4
Max Queue	24.8	19.4	20.9	26.4	29.5	29.6	29.7	28.0	26.6	26.1
Mean Virtual Queue	4.5	12.4	9.5	11.7	25.3	49.1	54.7	39.4	23.9	25.6
Max Virtual Queue	13.8	20.2	13.1	17.3	39.2	61.2	68.4	58.8	32.7	36.1
Total Mean Queue	19.2	26.2	21.1	31.9	53.4	77.5	81.3	57.4	46.0	46.0
Total Max Queue	38.6	39.6	34.0	43.7	68.7	90.8	98.1	86.8	59.3	62.2
Speed	8.7	11.1	9.8	9.1	0.2	5.8	9.3	12.4	6.2	8.1

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,192.4	1,179.2	1,118.4	968.8	857.6	855.6	876.0	800.8	3,800.4	7,848.8
Delay	17.6	19.9	18.2	18.4	18.3	16.9	16.8	15.7	18.0	17.8
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1
Total Delay	17.6	20.0	18.3	18.4	18.4	17.0	16.8	15.8	18.0	17.8
Mean Queue	1.5	1.7	1.6	11.4	25.9	35.4	35.6	35.4	18.6	18.6
Max Queue	6.0	6.7	8.1	22.2	35.8	38.5	38.5	38.0	26.2	24.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	11.8	47.8	101.4	153.9	14.9	36.6
Max Virtual Queue	1.7	2.0	1.8	1.5	26.3	74.9	129.3	178.9	26.1	49.2
Total Mean Queue	1.5	1.7	1.6	11.5	37.6	83.2	137.0	189.3	33.5	55.2
Total Max Queue	7.7	8.7	9.9	23.7	62.1	113.4	167.8	216.9	52.3	73.6
Speed	23.9	21.0	23.7	23.4	25.2	24.8	25.4	27.4	24.3	24.3

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,181.6	1,066.8	1,144.8	936.4	989.6	670.8	629.6	535.2	3,741.6	7,154.8
Delay	12.4	12.1	12.2	11.7	13.3	10.4	9.9	10.0	11.9	11.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	12.1	12.2	11.7	13.3	10.4	9.9	10.0	11.9	11.5
Mean Queue	1.1	1.0	1.1	0.8	1.0	0.5	0.5	0.4	0.9	0.8
Max Queue	5.3	5.1	4.8	4.4	5.0	3.5	2.9	2.4	4.4	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.0	1.1	0.8	1.0	0.5	0.5	0.4	0.9	0.8
Total Max Queue	5.3	5.1	4.8	4.4	5.0	3.5	2.9	2.4	4.4	4.2
Speed	23.5	24.3	23.7	24.9	22.4	26.7	28.1	28.0	24.4	25.1

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,838.0	1,946.0	1,984.0	1,962.4	1,785.6	1,940.8	1,753.6	1,496.8	7,672.8	14,707.2
Delay	19.8	16.6	17.3	39.0	77.3	77.2	44.0	33.6	52.7	41.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	1.8	14.8	24.4	12.7	4.1	6.4
Total Delay	19.8	16.7	17.3	39.0	79.1	91.9	68.4	46.4	56.8	48.4
Mean Queue	2.5	2.2	2.4	8.6	22.2	23.9	21.9	21.3	14.3	13.2
Max Queue	9.6	8.4	8.9	20.4	33.3	32.8	29.5	28.0	23.9	21.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	14.6	84.9	168.1	253.4	24.9	60.7
Max Virtual Queue	1.0	1.3	1.0	1.2	43.2	129.3	214.9	294.6	43.7	81.1
Total Mean Queue	2.5	2.2	2.4	8.6	36.8	108.8	189.9	274.7	39.2	73.9
Total Max Queue	10.6	9.7	9.9	21.6	76.5	162.1	244.4	322.6	67.5	102.8
Speed	54.2	56.4	55.3	43.5	36.1	39.7	49.9	57.1	43.6	48.4

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	224.8	235.6	194.8	236.8	213.6	164.8	143.6	150.8	810.0	1,564.8
Delay	8.8	7.5	8.0	11.6	13.7	9.9	9.8	7.3	10.8	9.7
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1
Total Delay	8.8	7.5	8.1	11.7	13.7	9.9	9.8	7.4	10.9	9.8
Mean Queue	0.5	0.4	0.4	2.2	3.5	3.4	3.4	3.3	2.4	2.2
Max Queue	4.8	4.0	4.1	6.3	8.2	6.7	6.3	5.9	6.3	5.8
Mean Virtual Queue	0.0	0.0	0.0	2.1	10.6	22.4	30.8	39.9	8.8	12.7
Max Virtual Queue	1.0	1.0	1.0	5.5	18.5	27.1	36.2	45.9	13.0	16.6
Total Mean Queue	0.5	0.4	0.4	4.3	14.1	25.8	34.2	43.3	11.1	14.9
Total Max Queue	5.8	5.0	5.1	11.8	26.7	33.8	42.5	51.8	19.4	22.4
Speed	30.4	32.2	31.4	26.6	26.0	29.0	29.4	32.0	28.2	29.5

2025 Do Minimum

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	35.2	49.6	40.4	62.8	56.0	43.2	54.8	43.6	202.4	385.6
Delay	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.1	0.1	0.2	0.1	0.1	0.3	0.0	0.1	0.1
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.1	0.2	0.1	0.1	0.3	0.0	0.1	0.1
Speed	45.4	45.2	44.6	45.0	45.3	45.1	43.8	44.2	45.0	44.8

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,452.8	1,528.0	1,712.8	1,728.8	1,718.4	1,660.0	1,483.6	1,329.6	6,820.0	12,614.0
Delay	23.4	24.2	40.2	80.0	110.2	97.1	56.4	21.0	81.9	59.4
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	23.5	24.2	40.3	80.1	110.3	97.2	56.4	21.1	82.0	59.5
Mean Queue	1.7	2.0	5.2	12.6	18.1	14.5	6.3	1.7	12.6	8.3
Max Queue	6.8	8.8	17.6	27.7	32.0	29.2	19.0	6.5	26.6	19.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.9	1.9	2.2	2.2	2.3	2.1	1.7	1.5	2.2	2.0
Total Mean Queue	1.7	2.0	5.3	12.7	18.2	14.5	6.3	1.7	12.7	8.3
Total Max Queue	8.7	10.7	19.8	29.9	34.3	31.3	20.7	8.0	28.8	21.4
Speed	83.7	81.0	64.0	46.2	37.6	44.9	65.2	82.6	48.2	61.5

Arm Reference:	C
Name	A171 Carqo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	918.4	1,010.8	1,028.4	998.8	934.8	985.6	982.4	882.0	3,947.6	7,741.2
Delay	7.1	6.7	6.7	6.7	6.8	6.6	7.2	7.1	6.7	6.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	6.7	6.7	6.7	6.8	6.6	7.2	7.1	6.7	6.8
Mean Queue	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.5
Max Queue	3.8	3.4	3.5	3.6	3.5	3.3	3.7	3.5	3.5	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.5
Total Max Queue	3.8	3.4	3.5	3.6	3.5	3.3	3.7	3.5	3.5	3.5
Speed	27.2	29.0	29.2	29.2	28.8	29.9	28.5	28.6	29.3	28.9

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,412.0	1,675.6	1,386.4	1,472.8	1,364.4	1,394.0	1,307.6	1,218.0	5,617.6	11,230.8
Delay	17.7	23.4	19.5	17.5	16.9	17.4	18.3	17.9	17.8	18.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	23.4	19.5	17.5	16.9	17.4	18.3	17.9	17.8	18.5
Mean Queue	1.4	2.4	1.6	1.5	1.3	1.4	1.4	1.3	1.4	1.5
Max Queue	6.1	8.3	7.5	6.2	6.1	6.2	6.2	6.1	6.5	6.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.1	1.1	1.1	1.1	1.0	1.0	0.8	1.1	1.0
Total Mean Queue	1.4	2.4	1.6	1.5	1.3	1.4	1.4	1.3	1.4	1.5
Total Max Queue	7.0	9.4	8.6	7.3	7.2	7.2	7.2	6.9	7.6	7.6
Speed	83.4	78.3	81.8	83.3	83.7	83.4	83.5	83.8	83.1	82.7

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	154.4	175.6	154.0	167.6	168.8	152.4	168.8	149.2	642.8	1,290.8
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Total Delay	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.9	0.6	0.9	0.8	0.5	1.0	1.0	0.7	0.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.8	0.9	0.6	0.9	0.8	0.5	1.0	1.0	0.7	0.8
Speed	53.9	54.2	54.1	54.6	54.4	54.3	54.2	53.8	54.3	54.2

2025 Do Minimum

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	60.0	40.0	66.4	68.4	72.8	29.2	45.6	57.6	236.8	440.0
Delay	1.2	0.7	1.2	1.2	1.2	0.4	1.6	0.9	1.0	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	0.7	1.2	1.2	1.2	0.5	1.7	1.0	1.0	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.4	0.1	0.1	0.2	0.2	0.2	0.4	0.2	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.7	0.1	0.2	0.2	0.3	0.2	0.4	0.2	0.2	0.3
Speed	37.1	40.0	37.8	38.2	38.4	41.4	38.1	38.3	38.9	38.7

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	852.0	860.8	886.4	886.0	868.0	853.6	847.6	784.0	3,494.0	6,838.4
Delay	24.7	23.2	22.8	24.0	23.0	26.1	24.0	22.5	24.0	23.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.7	23.2	22.9	24.0	23.1	26.1	24.1	22.5	24.0	23.8
Mean Queue	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2
Max Queue	5.8	5.0	4.9	5.1	4.9	4.9	5.0	5.1	5.0	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	1.4	1.1	1.2	1.5	1.3	1.3	1.1	1.3	1.3
Total Mean Queue	1.2	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.2	1.2
Total Max Queue	7.1	6.4	6.0	6.3	6.4	6.2	6.3	6.2	6.2	6.3
Speed	84.9	84.8	84.5	84.8	84.6	84.6	84.8	85.0	84.6	84.8

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	900.0	893.2	974.0	929.6	986.8	943.6	859.6	926.0	3,834.0	7,412.8
Delay	8.1	8.3	8.1	8.6	8.8	8.5	8.8	9.6	8.5	8.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.1	8.3	8.1	8.6	8.8	8.5	8.8	9.6	8.5	8.6
Mean Queue	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6
Max Queue	4.3	4.1	3.9	4.1	4.4	4.3	4.1	4.5	4.2	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.6	0.6	0.6
Total Max Queue	4.3	4.1	3.9	4.1	4.4	4.3	4.1	4.5	4.2	4.2
Speed	25.5	25.5	25.5	25.5	24.8	25.6	24.0	23.5	25.4	25.0

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,517.6	1,584.4	1,604.4	1,607.6	1,652.8	1,662.8	1,637.6	1,662.0	6,527.6	12,929.2
Delay	31.6	36.0	66.1	109.1	141.2	161.7	199.6	235.4	119.5	122.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	36.0	66.1	109.1	141.3	161.8	199.7	235.4	119.6	122.3
Mean Queue	3.2	3.8	8.2	14.6	17.9	21.6	26.2	30.9	15.6	15.8
Max Queue	11.4	12.4	22.5	30.9	31.8	36.1	42.7	47.6	30.3	29.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Max Virtual Queue	1.4	1.1	1.2	1.1	1.2	1.2	1.4	2.7	1.2	1.4
Total Mean Queue	3.2	3.8	8.2	14.6	17.9	21.6	26.2	31.0	15.6	15.8
Total Max Queue	12.8	13.5	23.7	32.0	33.0	37.3	44.1	50.3	31.5	30.9
Speed	72.1	66.8	46.7	34.3	28.1	27.4	20.7	16.1	34.1	38.5

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	253.2	198.0	282.4	239.6	234.8	248.0	216.0	208.4	1,004.8	1,880.4
Delay	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	0.8	1.1	1.2	1.0	0.9	1.0	1.0	1.1	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.2	0.8	1.2	1.2	1.0	0.9	1.0	1.0	1.1	1.0
Speed	54.2	54.3	54.1	54.2	54.1	54.1	54.6	54.2	54.1	54.2

2025 Do Minimum

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	186.0	115.6	150.8	96.0	114.4	106.4	96.0	119.6	467.6	984.8
Delay	1.1	1.2	1.9	0.5	3.0	0.4	0.5	0.4	1.4	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.2	1.9	0.5	3.0	0.4	0.5	0.4	1.4	1.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.1	0.4	0.0	0.5	0.0	0.0	0.0	0.2	0.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.5	0.5	0.6	0.5	0.9	0.6	0.8	0.6	0.7
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.5	0.6	0.9	0.6	1.0	0.9	0.6	0.8	0.9	0.9
Speed	41.0	41.7	41.0	42.5	39.2	43.5	42.8	43.2	41.6	41.8

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,181.6	1,164.8	1,158.0	1,116.4	1,089.6	1,091.2	1,072.4	1,027.6	4,455.2	8,901.6
Delay	66.8	89.0	82.9	80.6	83.8	62.4	51.4	36.7	77.5	70.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Total Delay	66.9	89.1	83.0	80.7	83.9	62.5	51.4	36.7	77.5	70.2
Mean Queue	6.2	8.4	8.1	7.6	7.3	5.4	3.3	2.2	7.1	6.2
Max Queue	17.0	20.7	19.7	16.5	17.3	14.7	10.2	6.5	17.1	15.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	2.2	2.1	1.8	1.6	1.5	1.3	1.7	1.4	1.6	1.7
Total Mean Queue	6.2	8.4	8.1	7.6	7.3	5.4	3.4	2.2	7.1	6.2
Total Max Queue	19.2	22.8	21.5	18.1	18.8	16.0	11.9	7.9	18.6	17.2
Speed	62.0	54.2	55.8	58.8	62.3	67.3	76.4	83.0	61.1	64.5

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,159.6	1,084.0	1,232.0	1,222.8	1,293.2	1,080.8	878.4	771.2	4,828.8	8,722.0
Delay	8.4	8.3	8.3	8.7	9.2	9.3	10.1	10.4	8.9	9.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	8.3	8.3	8.7	9.2	9.3	10.1	10.4	8.9	9.1
Mean Queue	0.7	0.6	0.7	0.8	0.9	0.7	0.7	0.6	0.8	0.7
Max Queue	4.0	3.8	4.1	4.1	4.3	4.0	4.0	3.9	4.1	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.7	0.8	0.9	0.7	0.7	0.6	0.8	0.7
Total Max Queue	4.0	3.8	4.1	4.1	4.3	4.0	4.0	3.9	4.1	4.0
Speed	25.2	25.5	25.0	24.4	24.1	22.2	21.1	21.3	23.9	23.6

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,786.8	1,837.2	1,832.8	1,897.2	1,822.4	2,087.2	1,992.4	2,207.2	7,639.6	15,463.2
Delay	125.2	220.1	286.7	368.8	425.8	384.9	377.7	357.7	366.6	323.7
Delay Virtual Queue	0.0	1.0	18.8	74.3	203.5	369.7	484.5	620.1	166.6	215.4
Total Delay	125.2	221.1	305.5	443.1	629.3	754.6	862.2	977.7	533.1	539.1
Mean Queue	19.6	36.2	48.0	55.7	62.4	57.9	59.2	56.4	56.0	50.2
Max Queue	37.4	55.8	71.0	83.0	84.2	79.3	80.8	78.4	79.4	72.1
Mean Virtual Queue	0.0	5.5	27.2	93.7	188.9	286.2	365.2	385.1	149.0	166.8
Max Virtual Queue	1.3	17.8	64.8	148.2	261.6	345.0	421.0	434.0	204.9	211.0
Total Mean Queue	19.6	41.7	75.3	149.4	251.3	344.1	424.5	441.5	205.0	216.9
Total Max Queue	38.7	73.6	135.8	231.2	345.8	424.3	501.8	512.4	284.3	283.1
Speed	27.3	14.1	9.9	6.0	4.8	5.2	5.3	5.5	6.5	9.4

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	196.4	236.4	236.8	268.0	298.4	216.8	186.4	194.8	1,020.0	1,834.0
Delay	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.3	1.0	1.0	1.1	0.7	0.7	0.9	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.0	1.3	1.0	1.0	1.2	0.7	0.7	0.9	1.0	1.0
Speed	54.4	54.3	54.6	54.3	54.4	54.4	54.9	55.5	54.4	54.6

2030 Do Minimum

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	38.8	52.0	49.6	52.4	59.2	52.0	47.2	51.2	213.2	402.4
Delay	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.2	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.1	0.1
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.1	0.0	0.0	0.1	0.1	0.3	0.2	0.1	0.1
Speed	44.8	44.6	45.4	44.1	44.8	44.5	44.3	44.0	44.7	44.6

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,454.0	1,588.8	1,765.6	1,748.8	1,733.6	1,748.0	1,565.2	1,387.2	6,996.0	12,991.2
Delay	24.2	25.2	50.3	90.7	128.3	129.7	84.0	42.1	99.7	74.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	24.3	25.3	50.4	90.8	128.4	129.8	84.0	42.1	99.8	75.0
Mean Queue	1.7	2.1	7.0	14.5	22.4	21.1	11.5	4.1	16.3	11.2
Max Queue	8.1	9.1	23.5	30.4	38.3	38.1	25.3	15.4	32.6	24.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.8	2.4	2.5	2.1	2.0	2.0	1.8	1.7	2.2	2.1
Total Mean Queue	1.7	2.2	7.1	14.6	22.5	21.2	11.5	4.2	16.3	11.2
Total Max Queue	9.9	11.5	26.0	32.5	40.3	40.1	27.1	17.1	34.7	26.6
Speed	83.1	79.9	59.3	35.8	26.3	31.1	51.7	71.8	38.1	53.0

Arm Reference:	C
Name	A171 Carqo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	976.4	1,042.4	1,055.6	1,014.8	1,032.0	1,042.4	958.8	922.8	4,144.8	8,045.2
Delay	7.2	6.3	6.5	6.8	6.7	6.7	6.8	7.3	6.7	6.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	6.3	6.5	6.8	6.7	6.7	6.8	7.3	6.7	6.8
Mean Queue	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max Queue	3.8	3.6	3.5	3.5	3.5	3.4	3.6	3.9	3.5	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total Max Queue	3.8	3.6	3.5	3.5	3.5	3.4	3.6	3.9	3.5	3.6
Speed	27.1	30.1	29.9	29.3	29.2	29.9	29.3	28.7	29.6	29.2

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,504.4	1,753.2	1,484.8	1,468.8	1,436.8	1,478.0	1,370.4	1,294.4	5,868.4	11,790.8
Delay	19.1	25.6	21.9	18.2	17.7	18.6	17.4	17.4	19.1	19.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	25.6	22.0	18.2	17.7	18.6	17.4	17.5	19.1	19.5
Mean Queue	1.7	2.8	1.9	1.5	1.5	1.6	1.4	1.3	1.6	1.7
Max Queue	7.3	9.7	8.5	6.1	6.1	6.5	6.3	6.0	6.8	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.4	1.3	1.2	1.0	1.3	0.9	1.0	1.2	1.2
Total Mean Queue	1.7	2.8	1.9	1.5	1.5	1.6	1.4	1.3	1.6	1.7
Total Max Queue	8.4	11.1	9.8	7.3	7.1	7.8	7.2	7.0	8.0	8.2
Speed	82.1	76.4	79.9	83.6	83.6	83.0	83.4	83.9	82.5	82.0

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	151.6	202.0	155.6	180.4	178.4	168.0	176.8	160.8	682.4	1,373.6
Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	1.1	1.0	1.0	0.9	1.0	0.7	0.7	1.0	0.9
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.8	1.2	1.0	1.0	0.9	1.0	0.7	0.7	1.0	0.9
Speed	54.3	53.8	54.3	54.7	54.3	53.7	53.9	54.1	54.3	54.2

2030 Do Minimum

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	69.6	52.0	71.2	59.6	63.2	26.4	44.0	55.2	220.4	441.2
Delay	0.7	0.7	0.7	1.0	2.7	0.4	0.7	0.9	1.2	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.7	0.7	1.0	2.7	0.4	0.7	1.0	1.2	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.0	0.0	0.1	0.2	0.0	0.0	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.3	0.3	0.4	0.1	0.4	0.0	0.0	0.4	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.4	0.3	0.4	0.2	0.6	0.0	0.0	0.5	0.3	0.3
Speed	39.1	39.3	39.0	38.2	37.8	41.8	41.0	39.2	39.2	39.4

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	904.0	912.8	910.4	980.0	877.2	860.0	880.8	846.4	3,627.6	7,171.6
Delay	24.1	22.7	21.5	23.0	25.5	25.2	25.4	24.6	23.8	24.0
Delay Virtual Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.2	22.7	21.5	23.0	25.5	25.2	25.5	24.6	23.8	24.0
Mean Queue	1.2	1.2	1.2	1.3	1.2	1.1	1.2	1.2	1.2	1.2
Max Queue	5.7	5.0	4.9	5.3	5.3	5.0	5.3	5.0	5.1	5.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.5	1.2	1.6	1.5	1.6	1.2	1.8	1.6	1.5	1.5
Total Mean Queue	1.2	1.2	1.2	1.3	1.2	1.1	1.2	1.2	1.2	1.2
Total Max Queue	7.2	6.2	6.5	6.8	6.9	6.2	7.1	6.6	6.6	6.7
Speed	84.6	84.9	84.6	84.3	84.8	85.2	84.8	84.9	84.7	84.8

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,028.4	1,006.0	1,112.4	1,029.2	1,112.4	1,058.0	952.4	1,039.2	4,312.0	8,338.0
Delay	9.1	8.6	9.1	8.8	8.8	8.7	9.1	9.3	8.8	8.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.1	8.6	9.1	8.8	8.8	8.7	9.1	9.3	8.8	8.9
Mean Queue	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7
Max Queue	4.7	4.3	4.5	4.6	4.4	4.6	4.5	4.6	4.5	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.7	0.7	0.7	0.7	0.6	0.7	0.7	0.7
Total Max Queue	4.7	4.3	4.5	4.6	4.4	4.6	4.5	4.6	4.5	4.5
Speed	24.9	26.2	25.4	25.4	25.4	26.2	24.9	25.3	25.6	25.5

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,550.4	1,608.8	1,635.2	1,693.6	1,682.8	1,691.2	1,630.4	1,607.6	6,702.8	13,100.0
Delay	42.0	51.5	79.4	135.3	159.3	161.7	217.0	292.3	133.9	141.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.5
Total Delay	42.0	51.5	79.4	135.3	159.3	161.7	217.1	296.8	133.9	141.9
Mean Queue	4.6	5.9	10.6	18.5	20.6	20.9	30.0	41.6	17.6	18.9
Max Queue	13.6	15.2	24.0	32.0	34.9	35.4	46.6	61.3	31.6	32.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.5	6.7	0.0	0.8
Max Virtual Queue	1.2	1.1	1.3	1.0	1.1	1.5	4.5	18.4	1.2	3.5
Total Mean Queue	4.6	5.9	10.6	18.5	20.6	20.9	30.5	48.3	17.6	19.7
Total Max Queue	14.8	16.3	25.3	33.0	36.0	36.9	51.1	79.7	32.8	36.2
Speed	63.9	58.2	47.7	32.0	28.2	26.4	14.8	8.6	33.6	34.8

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	241.2	212.8	259.2	214.4	256.8	248.4	250.0	218.8	978.8	1,901.6
Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.0	1.1	1.0	1.1	0.9	1.1	1.0	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.2	1.0	1.1	1.0	1.1	0.9	1.4	1.0	1.0	1.1
Speed	54.1	54.3	54.5	54.6	54.2	54.1	53.7	54.4	54.4	54.3

2030 Do Minimum

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	203.6	139.6	150.0	102.0	124.4	114.4	102.8	123.2	490.8	1,060.0
Delay	0.8	0.5	0.6	0.7	0.5	0.3	0.3	0.5	0.5	0.5
Delay Virtual Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	0.5	0.6	0.7	0.5	0.4	0.4	0.6	0.6	0.6
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.5	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	0.7	0.7	0.7	0.6	0.8	0.7	0.7	0.7	0.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.7	0.7	0.8	0.8	0.6	0.8	0.7	0.9	0.8	0.9
Speed	40.1	42.7	42.0	42.1	42.1	43.3	43.9	42.2	42.4	42.3

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,184.4	1,200.8	1,168.8	1,166.4	1,149.2	1,163.2	1,168.8	1,156.0	4,647.6	9,357.6
Delay	107.2	174.5	209.2	219.9	230.9	203.8	201.3	167.2	215.9	192.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	107.3	174.5	209.2	220.0	231.0	203.8	201.4	167.2	216.0	192.3
Mean Queue	12.2	22.3	26.2	27.4	27.6	24.6	24.5	17.9	26.4	23.2
Max Queue	26.5	36.4	39.8	42.9	41.3	38.0	37.2	33.1	40.5	37.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.6	1.9	1.9	1.8	1.7	1.6	1.3	1.8	1.8	1.7
Total Mean Queue	12.2	22.4	26.2	27.4	27.6	24.6	24.5	17.9	26.5	23.3
Total Max Queue	28.1	38.3	41.7	44.7	43.0	39.6	38.5	34.9	42.3	39.0
Speed	46.2	28.5	21.1	21.6	21.8	23.6	25.2	33.2	22.0	27.0

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,233.6	1,161.6	1,271.6	1,262.8	1,371.6	1,170.0	969.2	849.6	5,076.0	9,290.0
Delay	8.0	7.7	7.9	7.9	7.9	8.1	9.0	9.5	8.0	8.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.0	7.7	7.9	7.9	7.9	8.1	9.0	9.5	8.0	8.2
Mean Queue	0.7	0.6	0.7	0.7	0.8	0.7	0.6	0.6	0.7	0.7
Max Queue	4.0	3.9	4.1	4.1	4.1	4.0	3.8	4.0	4.1	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.6	0.7	0.7	0.8	0.7	0.6	0.6	0.7	0.7
Total Max Queue	4.0	3.9	4.1	4.1	4.1	4.0	3.8	4.0	4.1	4.0
Speed	25.8	26.7	25.7	25.8	25.8	24.8	23.1	22.7	25.5	25.1

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,880.8	1,995.2	2,086.0	2,083.2	2,066.0	2,158.8	2,156.4	2,159.2	8,394.0	16,585.6
Delay	163.4	231.0	272.7	329.3	364.8	356.6	347.4	354.2	330.8	305.6
Delay Virtual Queue	0.0	0.0	2.5	23.7	106.7	193.8	310.0	400.9	81.7	124.4
Total Delay	163.5	231.1	275.2	353.1	471.4	550.4	657.4	755.1	412.5	430.0
Mean Queue	26.6	37.5	45.9	55.0	57.7	57.2	56.1	56.7	54.0	49.6
Max Queue	44.2	58.1	69.8	77.3	79.2	77.9	77.2	77.0	76.1	70.8
Mean Virtual Queue	0.0	0.0	4.2	33.1	95.9	167.4	240.1	257.3	75.1	97.0
Max Virtual Queue	1.4	2.5	19.4	77.7	144.4	231.0	283.6	302.8	118.1	131.2
Total Mean Queue	26.6	37.6	50.1	88.1	153.6	224.6	296.2	314.0	129.1	146.6
Total Max Queue	45.6	60.6	89.2	155.0	223.6	308.9	360.8	379.8	194.2	202.0
Speed	19.9	10.8	8.1	6.1	5.3	5.5	5.6	5.5	6.2	8.1

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	207.6	232.8	214.8	252.0	287.6	195.6	184.0	204.4	950.0	1,778.8
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	0.8	1.1	0.9	1.1	0.9	1.0	0.9	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	0.8	1.1	0.9	1.1	0.9	1.0	0.9	1.0	1.0
Speed	54.3	54.7	54.6	54.6	54.4	54.8	54.7	54.8	54.6	54.6

2025 Do Something

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	41.6	55.2	47.2	57.6	66.0	44.4	40.4	40.8	215.2	393.2
Delay	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.2	0.0	0.3	0.2	0.1	0.2	0.2	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.2	0.0	0.3	0.2	0.1	0.2	0.2	0.2	0.2
Speed	45.3	43.9	45.4	44.2	44.7	44.9	44.6	44.4	44.8	44.7

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,442.0	1,513.2	1,715.6	1,735.2	1,706.8	1,677.2	1,529.6	1,343.6	6,834.8	12,663.2
Delay	23.2	25.3	37.9	83.9	120.5	122.7	61.5	22.1	91.2	65.4
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	23.3	25.3	38.0	84.0	120.6	122.8	61.5	22.2	91.3	65.4
Mean Queue	1.7	1.9	4.2	13.5	19.9	19.1	7.1	1.7	14.2	9.3
Max Queue	6.4	8.0	16.6	27.6	35.7	33.8	22.3	7.1	28.4	20.7
Mean Virtual Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.6	1.8	2.2	2.8	2.2	1.9	1.9	2.0	2.3	2.1
Total Mean Queue	1.8	1.9	4.3	13.6	19.9	19.1	7.1	1.7	14.2	9.3
Total Max Queue	8.0	9.8	18.8	30.4	37.9	35.7	24.2	9.1	30.7	22.7
Speed	83.3	82.0	70.0	44.5	34.3	34.3	60.4	82.4	45.8	59.6

Arm Reference:	C
Name	A171 Carqo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	947.2	1,019.6	1,024.4	1,034.8	1,004.0	996.4	1,003.6	921.2	4,059.6	7,951.2
Delay	7.2	6.4	6.5	6.3	6.5	6.7	6.9	7.5	6.5	6.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.2	6.4	6.5	6.3	6.5	6.7	6.9	7.5	6.5	6.7
Mean Queue	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max Queue	3.7	3.4	3.6	3.1	3.3	3.1	3.4	3.6	3.3	3.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total Max Queue	3.7	3.4	3.6	3.1	3.3	3.1	3.4	3.6	3.3	3.4
Speed	27.7	29.9	30.2	30.8	30.5	30.3	29.7	29.0	30.4	29.8

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,458.0	1,699.2	1,475.2	1,484.0	1,408.4	1,375.6	1,346.4	1,218.8	5,743.2	11,465.6
Delay	19.8	24.6	23.3	17.1	18.1	18.0	18.4	20.6	19.1	19.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	24.6	23.3	17.1	18.1	18.0	18.4	20.6	19.1	19.9
Mean Queue	1.7	2.4	2.0	1.4	1.4	1.4	1.4	1.5	1.6	1.6
Max Queue	7.1	9.9	9.2	5.7	5.9	5.8	5.9	6.5	6.7	7.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.1	1.0	0.8	1.1	1.2	1.2	1.2	1.0	1.1
Total Mean Queue	1.7	2.4	2.0	1.4	1.4	1.4	1.4	1.5	1.6	1.6
Total Max Queue	8.1	11.0	10.2	6.5	7.0	7.0	7.1	7.7	7.7	8.0
Speed	79.2	73.4	75.0	81.4	82.0	81.7	81.9	79.8	80.0	79.4

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	147.6	186.4	133.2	174.0	160.8	168.0	177.6	162.8	636.0	1,310.4
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.0	0.8	0.7	0.8	0.9	0.8	0.9	0.8	0.8
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	1.0	0.8	0.7	0.8	0.9	0.8	0.9	0.8	0.8
Speed	54.1	54.3	54.3	54.0	54.3	54.0	54.4	54.6	54.2	54.3

2025 Do Something

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	51.2	52.8	70.8	58.8	74.4	43.2	39.2	51.6	247.2	442.0
Delay	0.7	0.8	0.7	0.6	0.9	0.8	0.5	0.7	0.7	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.8	0.8	0.6	0.9	0.8	0.5	0.7	0.8	0.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.2	0.1	0.4	0.0	0.2	0.2	0.0	0.1	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.2	0.4	0.0	0.4	0.2	0.0	0.1	0.3	0.2
Speed	39.1	39.3	39.2	39.7	38.8	40.6	41.2	39.9	39.6	39.7

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	928.8	951.2	914.0	963.2	944.4	877.6	900.8	884.0	3,699.2	7,364.0
Delay	25.0	27.9	32.8	27.4	24.5	25.8	22.3	23.5	27.6	26.3
Delay Virtual Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	28.0	32.9	27.4	24.5	25.8	22.3	23.6	27.6	26.4
Mean Queue	1.3	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.3	1.3
Max Queue	6.2	5.4	5.4	5.4	5.7	5.3	5.0	5.5	5.5	5.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.4	1.3	1.0	1.1	1.3	1.4	1.1	1.2	1.2
Total Mean Queue	1.3	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.3	1.3
Total Max Queue	7.4	6.8	6.7	6.4	6.8	6.6	6.4	6.6	6.6	6.7
Speed	84.6	84.8	84.9	84.5	84.7	85.0	85.0	84.9	84.8	84.8

Arm Reference:	C
Name	A171 Cargo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	974.0	940.4	1,038.8	984.4	1,080.8	1,019.6	966.8	985.2	4,123.6	7,990.0
Delay	8.8	9.6	10.6	10.8	9.7	9.2	8.0	7.9	10.1	9.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	9.6	10.6	10.8	9.7	9.2	8.0	7.9	10.1	9.4
Mean Queue	0.6	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.8	0.7
Max Queue	4.3	4.2	4.4	4.5	4.7	4.6	3.9	4.1	4.6	4.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.7	0.8	0.8	0.8	0.7	0.6	0.6	0.8	0.7
Total Max Queue	4.3	4.2	4.4	4.5	4.7	4.6	3.9	4.1	4.6	4.4
Speed	26.2	26.0	25.8	24.5	25.3	25.7	26.6	26.8	25.3	25.8

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,471.2	1,587.6	1,504.8	1,568.4	1,540.4	1,433.2	1,374.0	1,368.4	6,046.8	11,848.0
Delay	56.2	99.0	145.1	260.5	337.3	395.6	501.8	531.2	284.6	290.2
Delay Virtual Queue	0.0	0.0	0.0	4.1	21.7	66.3	139.8	317.0	23.0	63.6
Total Delay	56.2	99.0	145.2	264.6	359.0	461.9	641.6	848.2	307.7	353.7
Mean Queue	6.5	11.4	20.6	36.6	43.3	51.9	61.0	64.6	38.1	37.1
Max Queue	19.6	24.7	38.8	52.2	57.9	68.4	77.1	80.1	54.3	52.6
Mean Virtual Queue	0.0	0.0	0.3	6.5	22.3	49.6	129.9	222.0	19.7	50.0
Max Virtual Queue	1.0	1.2	4.6	15.6	37.1	80.6	188.9	274.6	34.5	70.9
Total Mean Queue	6.5	11.4	20.9	43.1	65.6	101.5	190.9	286.6	57.8	87.1
Total Max Queue	20.6	25.9	43.4	67.8	95.0	149.0	266.0	354.7	88.8	123.5
Speed	54.4	32.9	24.8	10.7	7.4	6.0	4.2	3.5	12.2	17.3

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	236.0	189.2	270.8	254.0	251.6	244.4	232.0	202.0	1,020.8	1,880.0
Delay	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0
Delay Virtual Queue	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.3	0.7	1.2	1.1	1.2	1.2	1.1	0.8	1.2	1.1
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.3	0.7	1.4	1.1	1.2	1.2	1.1	0.9	1.2	1.1
Speed	54.3	54.6	54.0	54.2	54.3	54.2	54.6	54.4	54.2	54.3

2025 Do Something

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	191.2	122.0	150.4	95.6	113.2	109.2	93.6	106.8	468.4	982.0
Delay	1.8	10.5	15.8	4.9	5.6	4.9	0.7	1.1	7.8	5.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.9	10.6	15.9	4.9	5.6	4.9	0.7	1.1	7.8	5.9
Mean Queue	0.0	0.3	0.4	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Max Queue	0.6	1.1	1.7	0.4	0.6	0.4	0.1	0.1	0.8	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.9	0.6	0.3	0.2	0.2	0.2	0.9	0.3	0.5
Total Mean Queue	0.0	0.3	0.4	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Total Max Queue	1.6	2.0	2.3	0.7	0.8	0.6	0.3	1.0	1.1	1.2
Speed	39.6	37.6	36.9	41.3	40.7	41.7	42.8	42.5	40.2	40.4

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,224.8	1,186.0	1,182.0	1,174.4	1,197.6	1,246.8	1,245.6	1,255.2	4,800.8	9,712.4
Delay	151.3	247.3	295.4	361.0	396.1	367.2	344.1	291.6	354.9	312.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	21.5	52.0	43.4	48.9	18.4	20.5
Total Delay	151.4	247.4	295.4	361.0	417.6	419.3	387.6	340.6	373.3	332.6
Mean Queue	19.7	32.7	43.8	50.6	49.7	50.0	44.8	38.0	48.5	42.0
Max Queue	37.5	50.0	62.1	67.4	66.1	66.1	59.9	55.9	65.4	58.9
Mean Virtual Queue	0.0	0.0	0.0	10.6	16.6	14.5	18.0	18.0	10.4	9.8
Max Virtual Queue	1.9	1.9	1.7	19.6	19.7	18.3	21.5	21.3	14.8	13.4
Total Mean Queue	19.8	32.8	43.8	61.1	66.3	64.5	62.8	56.0	58.9	51.8
Total Max Queue	39.4	51.9	63.8	87.0	85.8	84.4	81.4	77.2	80.3	72.4
Speed	28.6	17.2	13.9	13.9	11.1	11.0	12.2	17.6	12.5	15.3

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,212.0	1,124.0	1,195.2	1,191.2	1,246.0	1,207.2	1,075.6	879.6	4,839.6	9,130.8
Delay	8.3	9.2	10.5	9.0	8.8	8.6	10.0	9.9	9.2	9.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	9.2	10.5	9.0	8.8	8.6	10.0	9.9	9.2	9.3
Mean Queue	0.7	0.8	0.9	0.8	0.8	0.7	0.8	0.6	0.8	0.8
Max Queue	4.1	4.3	4.5	4.2	4.5	4.4	4.5	3.9	4.4	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.7	0.8	0.9	0.8	0.8	0.7	0.8	0.6	0.8	0.8
Total Max Queue	4.1	4.3	4.5	4.2	4.5	4.4	4.5	3.9	4.4	4.3
Speed	25.1	25.2	24.2	25.0	25.7	24.2	23.8	21.6	24.8	24.4

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,672.0	1,450.4	1,235.2	1,383.6	1,264.0	1,459.6	1,312.0	1,437.2	5,342.4	11,214.0
Delay	198.5	372.2	630.7	665.4	657.5	597.6	606.2	590.7	637.8	550.7
Delay Virtual Queue	0.9	10.7	99.0	409.1	836.9	1,212.1	1,624.5	1,961.7	639.2	754.9
Total Delay	199.4	382.8	729.7	1,074.4	1,494.3	1,809.6	2,230.7	2,552.4	1,277.0	1,305.6
Mean Queue	33.3	61.5	73.4	71.8	72.2	68.9	72.2	68.9	71.6	66.0
Max Queue	59.1	82.3	90.0	91.0	90.4	87.4	90.5	85.2	89.7	85.1
Mean Virtual Queue	4.8	67.2	255.3	483.3	718.3	981.5	1,229.3	1,421.9	609.6	641.2
Max Virtual Queue	18.1	142.7	363.5	603.8	840.1	1,112.5	1,349.1	1,496.6	730.0	739.6
Total Mean Queue	38.0	128.7	328.7	555.1	790.4	1,050.4	1,301.5	1,490.7	681.2	707.2
Total Max Queue	77.2	225.0	453.5	694.8	930.5	1,199.9	1,439.6	1,581.8	819.7	824.7
Speed	14.9	6.0	3.3	3.3	3.1	3.4	3.3	3.5	3.3	4.9

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	212.0	227.6	204.0	263.2	296.0	218.8	172.8	190.4	982.0	1,784.8
Delay	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.0	1.1	1.1	1.1	0.7	0.9	0.9	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.1	1.0	1.1	1.1	1.1	0.7	0.9	0.9	1.0	1.0
Speed	54.2	54.4	54.6	54.4	54.6	54.8	54.9	54.6	54.6	54.6

2030 Do Something

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	42.0	54.0	51.2	52.4	62.0	43.6	42.4	50.0	209.2	397.6
Delay	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Delay Virtual Queue	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.2
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.1	0.1	0.4	0.0	0.2	0.2	0.1	0.3	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.1	0.4	0.0	0.2	0.2	0.1	0.3	0.2	0.2
Speed	44.9	43.6	44.0	44.4	44.5	45.0	44.3	44.7	44.5	44.4

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,525.2	1,585.6	1,771.2	1,756.0	1,784.4	1,780.8	1,709.2	1,593.6	7,092.4	13,506.0
Delay	24.5	26.2	67.4	169.0	234.4	244.0	219.2	122.9	178.7	142.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	24.6	26.3	67.5	169.1	234.5	244.1	219.3	123.0	178.8	143.0
Mean Queue	1.9	2.2	10.9	32.7	44.6	44.7	35.9	16.1	33.2	24.7
Max Queue	9.5	10.3	30.2	53.9	62.8	61.1	55.2	35.3	52.0	41.1
Mean Virtual Queue	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	2.3	2.1	2.7	2.4	2.5	2.4	2.0	2.1	2.5	2.3
Total Mean Queue	1.9	2.3	10.9	32.7	44.7	44.7	36.0	16.1	33.3	24.7
Total Max Queue	11.8	12.4	32.9	56.3	65.3	63.5	57.2	37.4	54.5	43.5
Speed	82.4	79.2	51.5	22.4	15.4	17.3	22.9	41.7	26.7	39.9

Arm Reference:	C
Name	A171 Carqo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,026.4	1,068.4	1,121.2	1,066.4	1,072.0	1,103.6	1,044.4	997.2	4,363.2	8,499.6
Delay	7.0	6.4	6.4	6.5	6.4	6.8	6.9	7.0	6.5	6.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.0	6.4	6.4	6.5	6.4	6.8	6.9	7.0	6.5	6.7
Mean Queue	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Max Queue	3.8	3.3	3.5	3.5	3.2	3.9	3.5	3.7	3.5	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Total Max Queue	3.8	3.3	3.5	3.5	3.2	3.9	3.5	3.7	3.5	3.5
Speed	29.0	30.2	30.4	30.6	31.0	30.3	30.1	29.7	30.6	30.2

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,567.2	1,801.2	1,658.0	1,633.6	1,612.0	1,652.4	1,464.4	1,378.8	6,556.0	12,767.6
Delay	18.8	28.5	22.1	18.1	16.8	18.2	19.2	18.3	18.8	19.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	28.5	22.1	18.1	16.8	18.2	19.2	18.3	18.8	19.9
Mean Queue	1.7	3.1	2.0	1.6	1.5	1.7	1.6	1.4	1.7	1.8
Max Queue	8.7	11.5	9.5	6.7	6.6	6.9	6.3	6.5	7.4	7.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.6	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Total Mean Queue	1.7	3.1	2.0	1.6	1.5	1.7	1.6	1.4	1.7	1.8
Total Max Queue	9.9	13.1	10.6	7.9	7.8	8.1	7.5	7.7	8.6	9.0
Speed	79.9	67.5	75.2	80.0	81.2	79.6	80.4	81.3	79.0	78.2

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	158.8	169.6	141.6	181.2	174.8	170.8	167.6	144.4	668.4	1,308.8
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Total Delay	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.0	0.7	1.2	1.0	0.8	0.8	0.9	0.9	0.9
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	1.0	0.7	1.2	1.0	0.8	0.8	0.9	0.9	0.9
Speed	54.1	54.3	54.0	54.3	53.8	54.4	54.2	54.1	54.1	54.1

2030 Do Something

J-14 A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	63.6	52.8	64.8	57.6	66.8	38.0	46.4	57.6	227.2	447.6
Delay	0.7	0.8	1.2	1.3	1.0	0.4	0.6	1.4	1.0	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.8	1.3	1.3	1.0	0.5	0.6	1.4	1.0	1.0
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.2	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.2	0.2
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.3	0.3	0.5	0.3	0.1	0.1	0.4	0.3	0.3
Speed	38.4	38.7	37.0	40.2	39.3	41.6	40.3	38.4	39.5	39.2

Arm Reference:	B
Name	A66 (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,076.8	1,082.0	1,044.4	1,098.4	1,055.2	1,031.2	1,135.2	1,029.2	4,229.2	8,552.4
Delay	55.5	60.9	70.9	76.5	79.9	112.7	126.0	83.4	85.0	83.4
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.1
Total Delay	55.5	60.9	70.9	76.6	79.9	112.8	126.3	83.4	85.1	83.5
Mean Queue	2.8	3.1	4.1	6.9	9.3	13.2	9.0	5.4	8.4	6.9
Max Queue	10.1	9.7	12.0	16.4	18.1	20.8	17.8	11.3	16.8	14.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Max Virtual Queue	1.4	1.5	1.2	1.5	1.6	2.3	1.5	1.2	1.7	1.5
Total Mean Queue	2.8	3.1	4.1	6.9	9.3	13.3	9.0	5.4	8.4	6.9
Total Max Queue	11.5	11.2	13.2	17.9	19.7	23.1	19.3	12.5	18.5	16.3
Speed	81.2	78.5	78.0	73.3	77.3	74.6	73.0	75.4	75.8	76.3

Arm Reference:	C
Name	A171 Carqo Fleet Lane

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,059.6	1,069.6	1,115.2	1,100.0	1,104.0	1,115.2	1,084.0	1,090.8	4,434.4	8,738.4
Delay	14.2	15.6	20.9	16.6	13.8	10.2	11.8	15.2	15.4	14.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	15.6	20.9	16.6	13.8	10.2	11.8	15.2	15.4	14.8
Mean Queue	1.2	1.4	2.0	1.4	1.2	0.8	1.0	1.4	1.4	1.3
Max Queue	5.2	5.2	6.3	5.7	4.7	4.7	4.8	5.1	5.4	5.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.4	2.0	1.4	1.2	0.8	1.0	1.4	1.4	1.3
Total Max Queue	5.2	5.2	6.3	5.7	4.7	4.7	4.8	5.1	5.4	5.2
Speed	24.5	23.4	22.0	23.5	26.3	26.2	25.0	23.9	24.5	24.4

Arm Reference:	D
Name	A66 (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,653.6	1,605.6	1,508.4	1,431.6	1,403.2	1,453.6	1,301.2	1,270.0	5,796.8	11,627.2
Delay	74.2	147.2	275.5	439.0	510.5	524.3	542.5	610.9	437.3	395.7
Delay Virtual Queue	0.0	0.1	0.4	42.6	212.1	419.7	582.8	787.0	168.7	245.9
Total Delay	74.3	147.3	275.9	481.6	722.7	944.0	1,125.3	1,397.8	606.0	641.7
Mean Queue	9.5	20.3	42.5	57.7	61.5	63.4	66.6	68.3	56.3	49.6
Max Queue	22.7	35.9	64.7	75.0	78.5	78.1	82.2	83.4	74.1	66.1
Mean Virtual Queue	0.0	0.1	6.9	71.2	178.2	283.5	408.4	568.9	134.9	183.6
Max Virtual Queue	1.1	2.1	29.6	130.3	229.9	339.7	492.0	649.3	182.4	228.5
Total Mean Queue	9.5	20.4	49.4	128.9	239.6	346.9	475.0	637.2	191.2	233.1
Total Max Queue	23.8	38.0	94.3	205.3	308.4	417.8	574.2	732.7	256.5	294.6
Speed	39.3	25.7	15.3	7.8	4.6	3.8	3.6	3.2	7.9	12.4

Arm Reference:	E
Name	Cambridge Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	225.2	212.8	252.8	222.0	258.0	244.0	222.0	193.2	976.8	1,830.0
Delay	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0
Delay Virtual Queue	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.8	1.2	0.8	1.1	1.0	1.1	1.0	1.0	1.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	1.0	0.8	1.2	1.0	1.1	1.0	1.1	1.0	1.1	1.0
Speed	54.3	54.3	53.9	54.2	54.2	54.3	54.2	54.4	54.1	54.2

2030 Do Something

J-14 J-14: A66 / A171 Carqo Fleet Lane Throughabout

Arm Reference:	A
Name	Works Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	204.4	126.0	152.0	104.4	110.4	101.6	105.6	122.8	468.4	1,027.2
Delay	1.5	1.7	3.2	1.1	0.4	4.6	11.3	12.1	2.3	4.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.8	3.2	1.1	0.4	4.6	11.4	12.1	2.3	4.3
Mean Queue	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.0	0.1
Max Queue	1.0	0.3	0.7	0.1	0.0	0.3	1.0	1.6	0.3	0.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	0.8	0.7	0.4	0.7	0.2	0.9	0.2	0.5	0.6
Total Mean Queue	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.0	0.1
Total Max Queue	1.9	1.1	1.4	0.5	0.7	0.5	1.9	1.8	0.8	1.2
Speed	38.6	41.3	40.2	43.1	42.7	40.9	34.3	31.7	41.7	39.4

Arm Reference:	B
Name	A66 (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,253.2	1,272.0	1,278.8	1,287.6	1,284.8	1,252.8	1,177.6	1,083.6	5,104.0	9,890.4
Delay	236.0	391.1	533.0	649.0	710.2	748.4	815.9	894.0	660.2	626.4
Delay Virtual Queue	0.1	0.1	2.3	26.2	75.9	135.6	206.0	329.2	60.0	92.8
Total Delay	236.1	391.1	535.3	675.2	786.2	884.1	1,022.0	1,223.3	720.2	719.3
Mean Queue	37.9	65.3	88.3	102.0	107.0	113.0	116.7	120.9	102.6	94.9
Max Queue	62.4	91.1	110.1	122.4	126.7	133.8	140.2	142.1	123.3	116.9
Mean Virtual Queue	0.0	0.5	8.3	25.6	48.7	80.3	135.7	200.3	40.7	60.0
Max Virtual Queue	1.9	5.0	20.1	45.6	68.8	114.7	176.7	246.8	62.3	82.4
Total Mean Queue	37.9	65.8	96.6	127.5	155.7	193.3	252.4	321.2	143.3	154.8
Total Max Queue	64.3	96.1	130.2	168.0	195.5	248.5	316.9	388.9	185.6	199.3
Speed	18.4	9.8	7.0	5.5	4.8	4.6	4.3	4.0	5.5	7.1

Arm Reference:	C
Name	A171 Carqo Fleet Lane

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,189.6	1,179.2	1,233.6	1,332.4	1,315.6	1,271.2	1,054.8	964.8	5,152.8	9,541.2
Delay	7.5	7.7	7.6	7.5	7.5	9.5	11.9	14.4	8.0	9.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	7.7	7.6	7.5	7.5	9.5	11.9	14.4	8.0	9.1
Mean Queue	0.6	0.6	0.6	0.7	0.7	0.9	1.1	1.2	0.7	0.8
Max Queue	4.0	4.0	3.9	4.1	4.2	4.5	4.8	4.9	4.2	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.6	0.6	0.6	0.7	0.7	0.9	1.1	1.2	0.7	0.8
Total Max Queue	4.0	4.0	3.9	4.1	4.2	4.5	4.8	4.9	4.2	4.3
Speed	27.0	26.5	26.9	27.2	27.4	26.2	24.7	23.3	26.9	26.2

Arm Reference:	D
Name	A66 (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,653.6	1,650.4	1,485.2	1,456.4	1,392.4	1,296.0	712.4	658.8	5,630.0	10,305.2
Delay	296.2	465.8	512.6	535.3	586.1	611.8	805.6	1,197.3	561.4	619.1
Delay Virtual Queue	1.4	81.8	317.6	590.8	877.5	1,214.2	1,505.7	1,783.2	750.0	791.4
Total Delay	297.6	547.7	830.2	1,126.1	1,463.7	1,826.0	2,311.3	2,980.4	1,311.5	1,410.5
Mean Queue	51.2	63.8	67.1	68.7	70.7	71.5	82.8	86.5	69.5	70.2
Max Queue	77.1	82.4	83.0	84.5	85.3	89.4	98.9	99.2	85.6	87.3
Mean Virtual Queue	10.6	126.7	313.6	527.7	776.1	1,049.5	1,401.5	1,792.5	666.7	740.6
Max Virtual Queue	44.8	214.4	415.1	652.8	893.5	1,211.5	1,605.6	1,969.8	793.2	866.7
Total Mean Queue	61.8	190.5	380.6	596.4	846.8	1,121.0	1,484.3	1,879.1	736.2	810.8
Total Max Queue	121.9	296.8	498.1	737.3	978.8	1,300.9	1,704.5	2,069.0	878.8	954.0
Speed	7.4	4.2	3.8	3.8	3.4	3.3	2.6	1.6	3.6	3.7

Arm Reference:	E
Name	Cambridge Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	202.8	236.8	226.0	278.4	278.8	219.2	196.4	202.8	1,002.4	1,841.2
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Virtual Queue	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1
Total Delay	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.1	1.2	1.2	1.1	1.1	0.9	1.2	1.2	1.1
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.9	1.1	1.2	1.2	1.1	1.1	0.9	1.2	1.2	1.1
Speed	54.8	54.7	54.6	54.8	54.5	54.4	54.5	54.4	54.6	54.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	448.8	440.0	616.4	490.8	458.8	468.0	482.8	507.2	2,034.0	3,912.8
Delay	15.7	19.5	24.0	20.7	23.7	21.9	20.6	19.3	22.6	20.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	19.5	24.0	20.7	23.7	21.9	20.6	19.3	22.6	20.9
Mean Queue	1.6	1.9	3.2	2.2	2.4	2.3	2.1	2.0	2.5	2.2
Max Queue	15.8	15.4	22.0	19.5	19.3	18.5	20.1	16.7	19.8	18.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	1.9	3.2	2.2	2.4	2.3	2.1	2.0	2.5	2.2
Total Max Queue	15.8	15.4	22.0	19.5	19.3	18.5	20.1	16.7	19.8	18.6
Speed	31.2	26.9	24.4	26.5	22.8	24.0	27.0	27.1	24.4	26.0

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	198.0	216.0	258.8	212.8	247.2	227.2	206.4	160.8	946.0	1,727.2
Delay	49.4	70.0	42.8	34.7	32.9	30.7	31.9	31.6	35.3	39.9
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
Total Delay	49.5	70.0	42.9	34.8	32.9	30.7	31.9	31.6	35.3	40.0
Mean Queue	3.0	3.8	2.6	1.9	2.1	1.8	3.4	4.0	2.1	2.7
Max Queue	10.8	10.1	9.9	7.9	8.9	8.1	9.5	8.3	8.7	9.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.7	0.0	0.6
Max Virtual Queue	1.1	1.1	1.0	1.0	1.0	1.0	3.5	7.5	1.0	2.0
Total Mean Queue	3.0	3.8	2.6	1.9	2.1	1.8	4.2	8.7	2.1	3.4
Total Max Queue	11.9	11.2	10.9	8.9	9.9	9.1	13.0	15.8	9.7	11.2
Speed	15.4	15.8	16.1	18.2	18.8	19.4	19.3	19.5	18.1	17.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	780.8	627.6	697.2	713.2	577.6	575.6	624.8	584.4	2,563.6	5,181.2
Delay	21.4	24.0	14.9	13.8	14.5	11.8	12.7	12.4	13.8	15.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	24.0	14.9	13.8	14.5	11.8	12.7	12.4	13.8	15.5
Mean Queue	2.4	2.1	1.2	1.2	1.1	0.9	2.5	3.0	1.1	1.7
Max Queue	15.1	13.0	11.7	11.2	9.8	5.9	9.6	10.8	9.7	10.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.1	1.2	1.2	1.1	0.9	2.5	3.0	1.1	1.7
Total Max Queue	15.1	13.0	11.7	11.2	9.8	5.9	9.6	10.8	9.7	10.8
Speed	34.6	30.7	32.9	30.9	30.8	28.7	31.1	31.8	30.8	31.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	583.6	512.4	534.4	594.0	531.2	482.0	537.6	512.8	2,141.6	4,288.0
Delay	23.1	19.1	18.6	19.9	20.3	20.4	20.7	20.9	19.8	20.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	19.1	18.6	19.9	20.3	20.4	20.7	20.9	19.8	20.3
Mean Queue	3.0	2.1	2.3	2.6	2.3	2.2	2.5	2.4	2.3	2.4
Max Queue	18.1	14.2	14.4	15.2	14.1	14.7	14.3	14.5	14.6	14.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	2.1	2.3	2.6	2.3	2.2	2.5	2.4	2.3	2.4
Total Max Queue	18.1	14.2	14.4	15.2	14.1	14.7	14.3	14.5	14.6	14.9
Speed	23.1	26.1	27.0	25.7	24.8	24.8	24.7	23.8	25.6	25.1

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	238.4	188.0	235.6	228.0	247.6	214.0	218.4	211.6	925.2	1,781.6
Delay	33.9	33.3	33.2	34.4	37.7	32.8	34.6	30.6	34.5	33.9
Delay Virtual Queue	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Total Delay	34.0	33.4	33.3	34.5	37.7	32.8	34.7	30.7	34.6	34.0
Mean Queue	2.1	1.6	2.0	2.0	2.4	1.8	2.0	1.6	2.1	1.9
Max Queue	9.5	7.3	7.7	8.2	9.5	7.4	8.0	7.3	8.2	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.2	0.8	1.0	1.0	0.8	1.0	1.1	0.9	1.0
Total Mean Queue	2.1	1.6	2.0	2.0	2.4	1.8	2.0	1.6	2.1	1.9
Total Max Queue	10.6	8.5	8.5	9.2	10.5	8.2	9.0	8.4	9.1	9.1
Speed	18.6	19.0	18.4	17.6	17.2	18.9	18.0	20.2	18.0	18.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	638.4	592.4	698.0	685.6	632.8	649.6	627.2	579.6	2,666.0	5,103.6
Delay	13.7	11.9	12.6	12.4	14.8	12.6	13.2	11.8	13.1	12.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.7	11.9	12.6	12.4	14.8	12.6	13.2	11.8	13.1	12.9
Mean Queue	1.0	0.8	1.0	1.0	1.2	0.9	1.0	0.8	1.0	1.0
Max Queue	9.0	6.0	8.1	9.0	9.6	7.6	8.7	6.1	8.6	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.0	0.8	1.0	1.0	1.2	0.9	1.0	0.8	1.0	1.0
Total Max Queue	9.0	6.0	8.1	9.0	9.6	7.6	8.7	6.1	8.6	8.1
Speed	28.5	28.0	29.9	30.1	29.1	28.8	28.1	29.0	29.5	29.0

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-15 **J-15: A171 Cargo Fleet Lane / College Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	650.0	644.8	610.4	539.2	597.6	580.4	538.8	545.2	2,327.6	4,706.4
Delay	27.2	28.2	26.0	35.0	27.7	33.8	24.0	22.8	30.6	28.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	28.2	26.0	35.0	27.7	33.8	24.0	22.8	30.6	28.4
Mean Queue	4.0	4.1	3.7	7.8	10.2	10.7	9.2	9.2	8.1	7.4
Max Queue	20.2	19.9	20.5	20.5	26.9	25.9	22.3	21.2	23.5	22.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.0	4.1	3.7	7.8	10.2	10.7	9.2	9.2	8.1	7.4
Total Max Queue	20.2	19.9	20.5	20.5	26.9	25.9	22.3	21.2	23.5	22.3
Speed	20.8	20.0	21.4	24.8	20.2	19.5	22.2	22.7	21.5	21.4

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	270.4	262.8	279.6	185.6	188.0	178.4	192.8	199.6	831.6	1,757.2
Delay	39.8	63.7	61.8	41.1	36.0	37.8	39.9	35.8	44.2	44.5
Delay Virtual Queue	0.1	1.8	2.6	0.0	0.0	0.1	0.1	0.1	0.7	0.6
Total Delay	39.9	65.5	64.4	41.1	36.0	37.8	40.0	35.9	44.8	45.1
Mean Queue	3.1	5.2	6.5	7.0	7.6	7.7	7.9	7.7	7.2	6.7
Max Queue	12.2	12.2	13.8	13.3	12.5	13.6	13.3	13.0	13.3	13.0
Mean Virtual Queue	0.0	1.3	5.7	13.4	24.1	36.7	49.4	60.5	20.0	23.4
Max Virtual Queue	1.2	4.0	10.3	19.5	30.3	45.4	55.8	67.5	26.4	28.9
Total Mean Queue	3.1	6.5	12.2	20.4	31.7	44.3	57.3	68.2	27.2	30.1
Total Max Queue	13.4	16.2	24.1	32.8	42.8	59.0	69.1	80.5	39.7	42.0
Speed	15.8	15.5	13.5	16.3	18.3	17.2	16.2	17.2	16.3	16.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	598.0	689.2	602.0	504.0	489.2	519.6	590.4	471.6	2,114.8	4,464.0
Delay	12.9	25.6	15.8	14.0	13.4	14.0	12.8	13.8	14.3	15.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.9	25.6	15.8	14.0	13.4	14.0	12.8	13.8	14.3	15.2
Mean Queue	1.3	2.2	2.4	2.8	2.9	2.9	2.9	2.9	2.7	2.6
Max Queue	9.6	10.2	9.9	9.5	9.3	9.7	8.3	8.7	9.6	9.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	2.2	2.4	2.8	2.9	2.9	2.9	2.9	2.7	2.6
Total Max Queue	9.6	10.2	9.9	9.5	9.3	9.7	8.3	8.7	9.6	9.4
Speed	29.3	29.2	28.9	28.4	28.9	27.6	30.3	29.2	28.5	28.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	535.2	550.8	690.0	578.8	601.2	589.6	616.0	577.6	2,459.6	4,739.2
Delay	17.9	18.9	30.7	25.1	25.0	23.5	25.5	25.1	26.1	24.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	18.9	30.7	25.1	25.0	23.5	25.5	25.1	26.1	24.2
Mean Queue	2.1	2.3	4.7	3.2	3.3	3.0	3.4	3.2	3.6	3.2
Max Queue	19.5	15.1	30.6	26.0	21.9	21.8	22.7	22.2	25.1	22.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.3	4.7	3.2	3.3	3.0	3.4	3.2	3.6	3.2
Total Max Queue	19.5	15.1	30.6	26.0	21.9	21.8	22.7	22.2	25.1	22.8
Speed	28.6	27.8	21.8	24.0	22.0	23.2	21.4	22.6	22.7	23.8

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	232.4	247.2	315.6	311.6	304.8	307.2	272.8	228.0	1,239.2	2,219.6
Delay	48.8	44.8	58.8	53.2	53.9	62.5	57.3	41.9	57.1	53.1
Delay Virtual Queue	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2
Total Delay	48.9	44.9	59.1	53.3	54.1	62.7	57.4	42.0	57.3	53.3
Mean Queue	2.4	2.2	4.1	3.3	3.4	4.1	3.0	2.0	3.7	3.1
Max Queue	10.8	8.2	13.7	11.9	11.6	14.0	11.2	8.9	12.8	11.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.1	1.4	1.3	1.3	1.6	1.2	1.2	1.4	1.3
Total Mean Queue	2.4	2.2	4.1	3.3	3.4	4.1	3.0	2.0	3.7	3.1
Total Max Queue	11.9	9.3	15.1	13.2	12.9	15.6	12.4	10.1	14.2	12.7
Speed	17.2	18.9	13.7	16.5	16.0	14.4	15.0	19.2	15.1	16.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	743.2	592.0	666.8	606.8	533.2	575.6	674.8	584.4	2,382.4	4,976.8
Delay	14.6	14.9	15.9	15.4	15.0	15.3	13.1	15.3	15.4	15.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	14.9	15.9	15.4	15.0	15.3	13.1	15.3	15.4	15.0
Mean Queue	1.3	1.1	1.3	1.1	1.0	1.0	1.0	1.1	1.1	1.1
Max Queue	14.8	10.1	11.9	8.9	8.9	10.6	9.0	9.4	10.1	10.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.3	1.1	1.3	1.1	1.0	1.0	1.0	1.1	1.1	1.1
Total Max Queue	14.8	10.1	11.9	8.9	8.9	10.6	9.0	9.4	10.1	10.4
Speed	34.5	31.8	32.4	30.0	29.3	28.9	32.4	31.5	30.1	31.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	546.4	479.2	477.2	548.8	497.2	430.8	492.8	451.6	1,954.0	3,924.0
Delay	20.7	21.3	19.5	19.6	18.2	19.0	16.7	19.2	19.1	19.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	21.3	19.5	19.6	18.2	19.0	16.7	19.2	19.1	19.2
Mean Queue	2.6	2.3	2.1	2.4	2.0	1.9	1.8	2.0	2.1	2.1
Max Queue	15.0	13.0	13.4	16.1	11.8	12.3	12.2	12.1	13.4	13.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.3	2.1	2.4	2.0	1.9	1.8	2.0	2.1	2.1
Total Max Queue	15.0	13.0	13.4	16.1	11.8	12.3	12.2	12.1	13.4	13.3
Speed	25.6	24.2	25.6	26.9	27.6	27.6	29.3	27.4	26.9	26.8

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	297.2	282.8	303.2	304.8	300.0	286.8	307.2	282.8	1,194.8	2,364.8
Delay	55.8	46.0	55.3	50.2	53.8	53.1	50.4	45.8	53.1	51.5
Delay Virtual Queue	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Delay	56.0	46.2	55.4	50.4	53.9	53.3	50.5	46.0	53.3	51.7
Mean Queue	3.5	2.6	3.6	3.1	3.5	2.9	3.1	2.6	3.3	3.2
Max Queue	14.0	10.9	12.5	11.2	12.9	11.7	11.2	10.9	12.1	11.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.4	1.1	1.4	1.2	1.4	1.3	1.1	1.3	1.3	1.3
Total Mean Queue	3.5	2.6	3.6	3.2	3.6	3.0	3.2	2.7	3.3	3.2
Total Max Queue	15.4	12.0	13.9	12.4	14.3	13.0	12.3	12.2	13.4	13.2
Speed	16.0	17.5	14.3	16.5	14.7	16.0	15.8	18.0	15.4	16.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	745.6	712.4	766.4	703.2	734.8	737.6	650.8	649.2	2,942.0	5,700.0
Delay	20.2	19.1	18.2	18.4	17.6	18.1	17.5	17.7	18.1	18.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	19.1	18.2	18.4	17.6	18.1	17.5	17.7	18.1	18.3
Mean Queue	1.9	1.7	1.7	1.6	1.6	1.7	1.4	1.4	1.7	1.6
Max Queue	15.5	14.9	15.8	14.1	13.8	14.0	13.7	12.3	14.4	14.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	1.7	1.7	1.6	1.6	1.7	1.4	1.4	1.7	1.6
Total Max Queue	15.5	14.9	15.8	14.1	13.8	14.0	13.7	12.3	14.4	14.3
Speed	31.9	30.6	32.1	31.0	31.5	32.3	30.3	30.3	31.7	31.3

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-15 **J-15: A171 Cargo Fleet Lane / College Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	726.0	700.4	724.8	681.6	732.0	749.6	728.4	720.8	2,888.0	5,763.6
Delay	27.2	29.7	23.6	20.7	23.3	28.6	35.0	53.3	24.1	29.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	29.7	23.6	20.7	23.3	28.6	35.0	53.3	24.1	29.5
Mean Queue	4.4	4.8	3.6	3.1	3.7	5.1	5.9	9.2	3.9	4.9
Max Queue	21.5	22.7	17.0	15.5	18.7	22.9	24.7	28.9	18.5	21.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.4	4.8	3.6	3.1	3.7	5.1	5.9	9.2	3.9	4.9
Total Max Queue	21.5	22.7	17.0	15.5	18.7	22.9	24.7	28.9	18.5	21.2
Speed	21.0	18.6	24.2	26.2	23.5	22.2	21.5	17.9	24.0	22.1

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	335.6	351.6	353.6	332.8	287.6	284.4	295.2	306.0	1,258.4	2,546.8
Delay	77.9	99.1	98.9	96.0	70.5	68.9	93.4	98.1	83.6	87.4
Delay Virtual Queue	0.2	0.2	1.2	0.4	0.1	0.2	0.2	18.6	0.5	2.4
Total Delay	78.1	99.3	100.0	96.3	70.6	69.1	93.6	116.7	84.0	89.8
Mean Queue	5.3	6.9	7.6	6.2	3.4	4.1	6.0	6.7	5.3	5.7
Max Queue	17.4	17.2	17.4	18.2	12.8	14.0	16.1	16.5	15.6	16.1
Mean Virtual Queue	0.0	0.0	0.1	0.0	0.0	0.0	1.0	4.3	0.0	0.6
Max Virtual Queue	1.7	1.4	1.9	1.7	1.3	1.2	4.6	6.9	1.5	2.5
Total Mean Queue	5.3	7.0	7.7	6.2	3.4	4.2	7.0	11.0	5.4	6.3
Total Max Queue	19.1	18.6	19.3	19.9	14.1	15.2	20.7	23.4	17.1	18.6
Speed	12.3	11.1	10.2	11.8	15.3	14.6	12.5	12.8	13.0	12.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	705.2	714.0	750.0	748.0	662.8	692.8	800.0	713.6	2,853.6	5,786.4
Delay	20.0	18.2	23.7	19.2	18.1	20.8	21.3	18.5	20.4	20.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	18.2	23.7	19.2	18.1	20.8	21.3	18.5	20.4	20.0
Mean Queue	1.8	1.6	2.3	1.7	1.5	1.8	2.1	1.7	1.8	1.8
Max Queue	14.3	13.7	17.6	13.3	11.0	14.8	15.1	13.7	14.2	14.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	1.6	2.3	1.7	1.5	1.8	2.1	1.7	1.8	1.8
Total Max Queue	14.3	13.7	17.6	13.3	11.0	14.8	15.1	13.7	14.2	14.2
Speed	29.2	29.2	29.0	28.6	28.6	27.7	29.5	29.6	28.5	28.9

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	570.0	580.8	720.0	646.8	625.2	620.4	635.2	656.4	2,612.4	5,054.8
Delay	21.2	24.0	27.3	27.5	23.8	23.9	25.0	22.6	25.6	24.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	24.0	27.3	27.5	23.8	23.9	25.0	22.6	25.6	24.5
Mean Queue	2.7	3.0	4.3	4.0	3.2	3.1	3.5	3.1	3.6	3.4
Max Queue	21.5	18.6	25.2	24.9	22.5	22.1	25.2	23.8	23.7	23.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	3.0	4.3	4.0	3.2	3.1	3.5	3.1	3.6	3.4
Total Max Queue	21.5	18.6	25.2	24.9	22.5	22.1	25.2	23.8	23.7	23.1
Speed	24.6	21.8	21.8	22.9	22.8	22.2	24.0	24.0	22.4	22.9

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	258.0	270.0	338.4	321.6	326.8	328.0	266.4	224.0	1,314.8	2,333.2
Delay	48.2	46.3	63.4	60.9	51.2	60.9	50.3	46.5	59.1	54.1
Delay Virtual Queue	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Total Delay	48.4	46.5	63.6	61.1	51.4	61.1	50.4	46.6	59.3	54.3
Mean Queue	2.5	2.5	4.6	3.9	3.3	4.0	2.6	2.0	4.0	3.3
Max Queue	10.8	10.8	13.9	13.3	13.2	13.6	10.7	8.3	13.5	12.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	1.2	1.2	1.2	1.4	1.1	1.1	1.0	1.2	1.2
Total Mean Queue	2.5	2.5	4.6	4.0	3.3	4.0	2.6	2.0	4.0	3.3
Total Max Queue	11.8	12.0	15.1	14.5	14.6	14.7	11.8	9.3	14.7	13.2
Speed	17.2	17.3	13.8	14.9	16.9	14.5	17.4	17.7	15.0	16.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	679.6	595.6	638.0	616.0	547.2	575.6	643.6	606.4	2,376.8	4,902.0
Delay	14.2	13.9	14.1	15.4	13.4	14.1	14.7	13.2	14.3	14.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	13.9	14.1	15.4	13.4	14.1	14.7	13.2	14.3	14.2
Mean Queue	1.2	1.0	1.1	1.2	0.9	0.9	1.1	0.9	1.0	1.0
Max Queue	13.9	10.1	10.1	10.5	6.3	8.3	9.4	9.4	8.8	9.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.0	1.1	1.2	0.9	0.9	1.1	0.9	1.0	1.0
Total Max Queue	13.9	10.1	10.1	10.5	6.3	8.3	9.4	9.4	8.8	9.6
Speed	33.5	31.4	32.7	30.9	28.8	29.5	30.5	32.3	30.5	31.1

2030 Do Minimum

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	592.0	570.0	509.6	588.0	534.0	476.4	524.0	488.4	2,108.0	4,282.4
Delay	23.8	21.8	19.8	19.2	21.7	19.8	20.5	16.7	20.1	20.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	21.8	19.8	19.2	21.7	19.8	20.5	16.7	20.1	20.4
Mean Queue	3.3	2.6	2.3	2.5	2.6	2.1	2.4	1.8	2.4	2.4
Max Queue	20.7	19.6	14.0	15.4	16.4	13.5	13.9	12.3	14.8	15.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.3	2.6	2.3	2.5	2.6	2.1	2.4	1.8	2.4	2.4
Total Max Queue	20.7	19.6	14.0	15.4	16.4	13.5	13.9	12.3	14.8	15.6
Speed	21.5	25.0	25.5	26.7	25.2	25.4	25.8	28.4	25.7	25.5

Arm Reference:	B
Name	College Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	321.6	294.8	300.0	297.2	292.8	313.6	314.4	276.0	1,203.6	2,410.4
Delay	57.1	49.7	46.8	59.8	72.7	70.9	60.0	52.9	62.6	59.2
Delay Virtual Queue	0.2	0.2	0.1	0.2	0.2	0.4	0.2	0.2	0.2	0.2
Total Delay	57.3	49.9	46.9	60.0	72.9	71.3	60.2	53.1	62.8	59.4
Mean Queue	3.8	3.0	3.0	3.9	5.0	4.4	4.0	2.8	4.1	3.8
Max Queue	14.8	11.5	11.8	13.7	14.1	15.0	13.1	10.8	13.7	13.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.1	1.2	1.3	1.3	2.0	1.2	1.2	1.2	1.5	1.3
Total Mean Queue	3.8	3.1	3.0	3.9	5.1	4.5	4.0	2.9	4.1	3.8
Total Max Queue	15.9	12.7	13.1	15.0	16.1	16.2	14.3	12.0	15.1	14.5
Speed	14.5	16.3	17.3	14.2	14.1	13.3	15.0	16.6	14.7	15.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	799.6	788.4	776.4	807.2	748.8	696.0	660.8	689.6	3,028.4	5,966.8
Delay	21.1	22.9	20.1	22.2	22.1	19.2	19.4	18.4	20.9	20.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	22.9	20.1	22.2	22.1	19.2	19.4	18.4	20.9	20.7
Mean Queue	2.3	2.5	2.0	2.5	2.3	1.7	1.8	1.6	2.1	2.1
Max Queue	18.1	20.1	16.9	18.3	17.7	13.7	16.9	12.7	16.7	16.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	2.5	2.0	2.5	2.3	1.7	1.8	1.6	2.1	2.1
Total Max Queue	18.1	20.1	16.9	18.3	17.7	13.7	16.9	12.7	16.7	16.8
Speed	31.9	32.1	32.2	32.6	31.7	30.9	30.8	30.7	31.8	31.6

2030 Do Minimum

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	753.2	754.0	758.8	746.8	752.8	724.0	720.4	721.6	2,982.4	5,931.6
Delay	28.6	39.3	28.4	22.3	33.3	84.7	112.3	152.2	42.2	60.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	39.3	28.4	22.3	33.3	84.7	112.3	152.2	42.2	60.4
Mean Queue	4.8	6.8	4.9	3.6	6.1	16.0	20.2	28.1	7.6	10.9
Max Queue	23.3	28.4	23.6	17.2	26.8	41.2	47.2	57.3	27.2	32.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.8	6.8	4.9	3.6	6.1	16.0	20.2	28.1	7.6	10.9
Total Max Queue	23.3	28.4	23.6	17.2	26.8	41.2	47.2	57.3	27.2	32.5
Speed	19.7	15.9	21.7	24.6	20.5	14.4	10.9	7.5	20.3	17.3

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	330.8	337.2	332.0	315.2	284.4	284.8	268.0	206.0	1,216.4	2,358.4
Delay	101.3	113.9	124.1	145.3	146.3	169.6	209.1	343.0	146.3	166.6
Delay Virtual Queue	0.3	0.2	4.9	66.7	78.8	49.8	63.8	132.7	50.1	49.7
Total Delay	101.6	114.2	129.1	212.0	225.2	219.4	272.9	475.7	196.4	216.3
Mean Queue	7.5	8.4	10.4	9.1	9.9	12.8	15.4	21.9	10.5	11.8
Max Queue	20.0	19.6	21.4	19.7	17.8	24.9	26.6	31.0	21.0	22.4
Mean Virtual Queue	0.0	0.2	2.4	7.7	4.8	6.7	12.7	27.1	5.4	7.4
Max Virtual Queue	1.8	2.3	9.7	10.7	11.1	13.0	20.4	43.1	11.1	13.7
Total Mean Queue	7.5	8.6	12.8	16.8	14.6	19.5	28.1	48.9	15.9	19.2
Total Max Queue	21.8	21.9	31.1	30.4	28.9	37.9	47.0	74.1	32.1	36.1
Speed	9.9	9.0	9.2	10.8	11.1	8.4	5.9	4.0	9.9	8.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	755.2	732.8	721.6	778.4	697.6	704.0	771.6	670.4	2,901.6	5,831.6
Delay	21.7	22.5	27.2	25.4	24.8	22.7	26.9	35.6	25.0	25.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.7	22.5	27.2	25.4	24.8	22.7	26.9	35.6	25.0	25.8
Mean Queue	2.2	2.5	2.6	2.8	2.5	2.2	3.3	4.3	2.5	2.7
Max Queue	16.9	17.8	17.4	18.0	16.8	17.2	17.9	17.4	17.4	17.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.5	2.6	2.8	2.5	2.2	3.3	4.3	2.5	2.7
Total Max Queue	16.9	17.8	17.4	18.0	16.8	17.2	17.9	17.4	17.4	17.4
Speed	29.9	29.7	28.3	29.2	29.4	29.3	30.6	31.4	29.1	29.7

2025 Do Something

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	564.0	572.0	756.0	589.2	583.6	600.4	617.2	590.4	2,529.2	4,872.8
Delay	19.7	21.5	26.1	23.4	22.4	25.6	24.7	21.5	24.4	23.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	21.5	26.1	23.4	22.4	25.6	24.7	21.5	24.4	23.3
Mean Queue	2.5	2.7	4.2	2.9	2.8	3.4	3.3	2.7	3.3	3.1
Max Queue	19.9	17.3	25.6	21.7	19.7	23.9	23.3	20.3	22.7	21.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	2.7	4.2	2.9	2.8	3.4	3.3	2.7	3.3	3.1
Total Max Queue	19.9	17.3	25.6	21.7	19.7	23.9	23.3	20.3	22.7	21.6
Speed	27.5	24.9	21.7	22.6	23.3	21.7	22.0	24.9	22.3	23.4

Arm Reference:	B
Name	College Road

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	250.8	258.0	316.8	309.6	324.8	318.4	267.2	228.4	1,269.6	2,274.0
Delay	51.8	46.8	66.7	55.2	64.0	61.1	74.2	48.1	61.8	58.9
Delay Virtual Queue	0.1	0.2	0.2	0.1	0.2	0.1	1.1	0.1	0.2	0.3
Total Delay	51.9	47.0	67.0	55.4	64.2	61.3	75.3	48.1	62.0	59.1
Mean Queue	2.8	2.3	4.7	3.4	4.2	4.0	4.3	2.3	4.1	3.6
Max Queue	11.2	10.0	14.1	13.3	13.0	13.1	13.4	9.0	13.4	12.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Max Virtual Queue	1.2	1.3	1.5	1.2	1.3	1.3	1.8	0.9	1.3	1.3
Total Mean Queue	2.8	2.3	4.7	3.4	4.2	4.0	4.3	2.3	4.1	3.6
Total Max Queue	12.4	11.3	15.6	14.5	14.3	14.4	15.2	9.9	14.7	13.6
Speed	16.2	18.1	14.0	16.7	14.7	14.0	14.7	17.9	14.9	15.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	736.0	575.6	688.0	620.8	559.6	564.0	666.8	646.4	2,432.4	5,057.2
Delay	14.4	16.0	16.3	15.2	14.2	13.5	22.4	16.9	14.8	16.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	16.0	16.3	15.2	14.2	13.5	22.4	16.9	14.8	16.0
Mean Queue	1.2	1.1	1.4	1.1	0.9	0.9	2.3	1.4	1.1	1.3
Max Queue	13.7	13.0	11.5	9.5	8.3	7.0	12.5	14.4	9.1	11.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.1	1.4	1.1	0.9	0.9	2.3	1.4	1.1	1.3
Total Max Queue	13.7	13.0	11.5	9.5	8.3	7.0	12.5	14.4	9.1	11.0
Speed	34.7	31.9	33.1	29.9	30.0	29.1	31.0	32.4	30.5	31.4

2025 Do Something

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	567.6	490.4	553.2	559.2	501.6	484.4	483.2	472.4	2,098.4	4,112.0
Delay	22.5	15.7	21.8	22.6	20.8	21.6	21.2	16.7	21.7	20.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.5	15.7	21.8	22.6	20.8	21.6	21.2	16.7	21.7	20.5
Mean Queue	2.9	1.6	2.6	2.9	2.3	2.3	2.3	1.8	2.5	2.4
Max Queue	18.7	13.6	16.6	16.6	14.3	15.7	15.4	12.7	15.8	15.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	1.6	2.6	2.9	2.3	2.3	2.3	1.8	2.5	2.4
Total Max Queue	18.7	13.6	16.6	16.6	14.3	15.7	15.4	12.7	15.8	15.5
Speed	24.4	30.0	25.1	23.2	24.7	24.8	25.3	28.9	24.5	25.6

Arm Reference:	B
Name	College Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	305.2	269.2	303.6	319.6	302.8	273.6	293.2	273.6	1,199.6	2,340.8
Delay	56.4	48.5	60.3	57.5	54.2	50.8	46.2	50.1	55.7	53.3
Delay Virtual Queue	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2
Total Delay	56.5	48.7	60.5	57.7	54.4	51.0	46.4	50.3	55.9	53.5
Mean Queue	3.6	2.5	3.4	3.8	3.5	2.8	2.8	2.9	3.4	3.2
Max Queue	13.9	10.0	12.5	12.9	13.4	11.1	10.7	11.8	12.5	12.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.2	1.6	1.4	1.4	1.4	1.3	1.1	1.2	1.4	1.3
Total Mean Queue	3.6	2.6	3.5	3.8	3.5	2.8	2.8	2.9	3.4	3.2
Total Max Queue	15.1	11.6	13.9	14.3	14.8	12.4	11.8	13.0	13.9	13.4
Speed	15.2	18.5	15.6	16.3	15.5	17.1	18.3	16.2	16.1	16.5

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	723.2	776.0	825.6	766.8	739.6	745.2	720.0	680.4	3,077.2	5,976.8
Delay	17.7	20.5	21.1	19.7	19.4	19.1	18.1	16.7	19.8	19.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	20.5	21.1	19.7	19.4	19.1	18.1	16.7	19.8	19.1
Mean Queue	1.6	2.2	2.2	2.0	1.9	1.9	1.7	1.4	2.0	1.9
Max Queue	15.0	18.5	17.5	15.8	16.5	16.2	13.1	11.4	16.5	15.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.6	2.2	2.2	2.0	1.9	1.9	1.7	1.4	2.0	1.9
Total Max Queue	15.0	18.5	17.5	15.8	16.5	16.2	13.1	11.4	16.5	15.6
Speed	31.3	32.5	33.3	32.3	32.2	31.7	31.4	30.8	32.4	32.0

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-15 **J-15: A171 Cargo Fleet Lane / College Road**

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	729.6	685.6	700.0	663.2	738.4	739.6	721.2	701.2	2,841.2	5,678.8
Delay	27.7	27.0	32.3	24.8	38.3	34.5	43.9	51.6	32.5	34.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	27.0	32.3	24.8	38.3	34.5	43.9	51.6	32.5	34.7
Mean Queue	4.5	4.0	5.3	3.6	6.6	6.0	7.8	8.8	5.4	5.8
Max Queue	22.7	21.2	21.3	18.3	25.3	26.5	25.8	32.1	22.9	24.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.5	4.0	5.3	3.6	6.6	6.0	7.8	8.8	5.4	5.8
Total Max Queue	22.7	21.2	21.3	18.3	25.3	26.5	25.8	32.1	22.9	24.0
Speed	22.4	21.0	18.8	21.8	16.7	20.0	20.5	17.6	19.3	19.8

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	314.8	300.8	323.2	314.0	307.6	319.2	304.0	313.6	1,264.0	2,497.2
Delay	81.0	110.5	159.8	176.6	149.6	154.5	141.7	159.4	160.1	143.7
Delay Virtual Queue	0.2	0.2	15.1	68.4	152.2	146.9	130.3	85.8	95.6	77.2
Total Delay	81.2	110.6	174.9	245.0	301.8	301.4	272.1	245.2	255.8	220.9
Mean Queue	5.1	8.1	12.4	12.1	10.2	11.0	10.5	12.3	11.4	10.3
Max Queue	16.6	19.7	23.3	22.8	19.6	21.3	19.3	22.2	21.8	20.7
Mean Virtual Queue	0.0	1.0	5.2	11.6	12.2	11.0	8.6	8.6	10.0	7.6
Max Virtual Queue	1.3	5.0	11.3	16.4	17.6	15.9	11.9	14.3	15.3	12.1
Total Mean Queue	5.1	9.1	17.7	23.7	22.4	22.0	19.1	20.9	21.4	17.9
Total Max Queue	17.9	24.7	34.6	39.2	37.2	37.2	31.2	36.5	37.1	32.8
Speed	13.7	11.0	9.0	9.4	10.1	9.0	10.7	8.7	9.4	10.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	712.0	732.0	721.6	744.8	720.8	749.6	795.2	702.0	2,936.8	5,878.0
Delay	19.9	25.4	33.5	35.7	31.6	22.2	23.9	21.1	30.8	27.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.9	25.4	33.5	35.7	31.6	22.2	23.9	21.1	30.8	27.1
Mean Queue	1.8	2.6	4.1	4.3	3.7	2.1	2.5	1.9	3.5	2.9
Max Queue	15.9	12.9	18.3	19.5	16.1	13.9	16.4	15.7	17.0	16.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	2.6	4.1	4.3	3.7	2.1	2.5	1.9	3.5	2.9
Total Max Queue	15.9	12.9	18.3	19.5	16.1	13.9	16.4	15.7	17.0	16.2
Speed	29.2	29.1	28.6	29.6	29.7	28.7	28.8	28.5	29.1	29.0

2030 Do Something

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	582.4	607.6	707.6	630.0	594.8	588.4	594.0	602.0	2,520.8	4,906.8
Delay	20.0	21.4	25.6	23.4	18.7	28.8	22.9	29.3	24.1	23.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	21.4	25.6	23.4	18.7	28.8	22.9	29.3	24.1	23.8
Mean Queue	2.6	2.8	4.0	3.2	2.5	3.9	3.1	4.1	3.4	3.3
Max Queue	24.0	17.3	21.3	22.5	19.4	22.5	18.3	20.2	21.4	20.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.8	4.0	3.2	2.5	3.9	3.1	4.1	3.4	3.3
Total Max Queue	24.0	17.3	21.3	22.5	19.4	22.5	18.3	20.2	21.4	20.8
Speed	28.1	25.8	22.9	24.7	29.9	21.8	26.2	19.6	24.8	24.9

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	232.0	235.2	239.2	207.2	164.8	183.2	132.0	186.0	794.4	1,579.6
Delay	57.9	82.7	158.7	354.1	392.8	621.6	616.1	630.6	381.8	366.3
Delay Virtual Queue	0.1	0.2	6.5	22.1	74.8	186.7	607.4	1,235.9	72.5	245.1
Total Delay	58.1	82.8	165.1	376.2	467.6	808.3	1,223.5	1,866.5	454.3	611.4
Mean Queue	3.2	6.6	15.3	20.1	24.2	27.0	27.8	26.5	21.7	19.2
Max Queue	13.6	17.6	24.0	28.6	32.2	32.6	31.9	31.5	29.4	26.8
Mean Virtual Queue	0.0	0.2	8.4	27.4	59.0	100.6	134.4	159.9	48.9	59.9
Max Virtual Queue	1.0	2.9	19.1	43.8	81.1	119.2	155.0	173.5	65.8	73.5
Total Mean Queue	3.2	6.7	23.7	47.5	83.3	127.7	162.2	186.4	70.6	79.0
Total Max Queue	14.6	20.5	43.1	72.4	113.3	151.8	186.9	205.0	95.2	100.3
Speed	15.3	13.9	8.1	5.5	4.0	1.4	1.1	1.2	4.7	6.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	743.2	542.8	532.0	474.0	452.4	534.0	489.6	595.6	1,992.4	4,363.6
Delay	20.0	40.2	89.9	100.2	135.5	106.8	124.7	89.2	108.1	90.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	40.2	89.9	100.2	135.5	106.8	124.7	89.2	108.1	90.5
Mean Queue	2.4	5.0	9.2	11.2	12.7	12.1	12.9	11.3	11.3	9.8
Max Queue	17.5	18.5	19.2	19.4	21.6	21.8	22.1	20.8	20.5	20.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	5.0	9.2	11.2	12.7	12.1	12.9	11.3	11.3	9.8
Total Max Queue	17.5	18.5	19.2	19.4	21.6	21.8	22.1	20.8	20.5	20.2
Speed	34.5	32.1	31.3	29.3	30.5	29.8	29.3	31.1	30.2	30.9

2030 Do Something

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	611.2	560.4	554.4	603.2	622.0	468.4	503.2	480.8	2,248.0	4,403.6
Delay	22.9	17.9	24.4	25.1	20.9	20.3	19.0	21.0	22.7	21.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	17.9	24.4	25.1	20.9	20.3	19.0	21.0	22.7	21.6
Mean Queue	3.1	2.2	3.1	3.5	2.9	2.1	2.2	2.3	2.9	2.7
Max Queue	19.3	14.7	16.4	20.0	16.8	14.1	15.2	13.9	16.8	16.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	2.2	3.1	3.5	2.9	2.1	2.2	2.3	2.9	2.7
Total Max Queue	19.3	14.7	16.4	20.0	16.8	14.1	15.2	13.9	16.8	16.4
Speed	22.9	28.7	23.6	22.9	25.6	25.6	29.4	26.2	24.4	25.5

Arm Reference:	B
Name	College Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	300.0	249.6	228.0	200.4	247.2	267.2	218.0	228.4	942.8	1,938.8
Delay	84.6	119.4	247.9	368.4	402.8	348.7	398.6	446.0	341.9	306.5
Delay Virtual Queue	0.2	0.2	28.8	67.4	356.4	468.3	609.1	660.5	230.2	269.0
Total Delay	84.8	119.6	276.7	435.7	759.3	817.0	1,007.7	1,106.5	572.2	575.5
Mean Queue	4.5	8.0	16.2	22.8	22.5	24.7	25.7	26.3	21.6	19.1
Max Queue	15.5	20.1	27.6	30.0	30.8	31.9	32.5	32.1	30.1	27.8
Mean Virtual Queue	0.0	0.6	6.1	22.2	40.1	45.7	61.7	84.6	28.5	32.2
Max Virtual Queue	1.2	4.0	14.1	36.1	50.5	55.6	78.8	99.2	39.1	42.1
Total Mean Queue	4.5	8.6	22.3	45.0	62.7	70.5	87.4	110.9	50.1	51.3
Total Max Queue	16.7	24.1	41.7	66.1	81.3	87.5	111.3	131.3	69.2	69.9
Speed	14.7	13.7	6.6	3.9	3.0	1.9	1.7	1.7	3.9	5.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	794.8	761.2	812.8	544.8	661.2	698.8	634.8	606.0	2,717.6	5,514.4
Delay	23.0	43.9	54.5	108.2	85.1	75.7	91.7	95.9	80.9	73.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	43.9	54.5	108.2	85.1	75.7	91.7	95.9	80.9	73.2
Mean Queue	2.7	6.4	9.3	13.3	12.1	11.8	13.1	13.0	11.6	10.4
Max Queue	20.2	21.8	23.0	23.2	23.1	22.9	22.7	22.8	23.1	22.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	6.4	9.3	13.3	12.1	11.8	13.1	13.0	11.6	10.4
Total Max Queue	20.2	21.8	23.0	23.2	23.1	22.9	22.7	22.8	23.1	22.5
Speed	32.6	32.6	33.0	29.5	31.3	32.1	30.8	30.1	31.5	31.5

2030 Do Something

J-15 A171 Cargo Fleet Lane / College Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	758.8	752.4	746.0	743.2	646.8	624.4	602.4	608.8	2,760.4	5,482.8
Delay	30.2	30.6	33.3	46.3	105.5	217.4	245.7	219.3	100.6	114.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	30.6	33.3	46.3	105.5	217.4	245.7	219.3	100.6	114.3
Mean Queue	5.3	5.2	5.9	8.4	20.1	36.2	36.0	36.2	17.7	19.0
Max Queue	24.5	22.9	23.4	29.6	52.6	63.6	62.3	64.3	42.3	42.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.3	5.2	5.9	8.4	20.1	36.2	36.0	36.2	17.7	19.0
Total Max Queue	24.5	22.9	23.4	29.6	52.6	63.6	62.3	64.3	42.3	42.8
Speed	19.7	21.9	18.9	17.6	12.4	5.5	5.5	6.6	13.6	13.5

Arm Reference:	B
Name	College Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	330.8	279.2	236.8	280.4	213.6	181.2	144.8	197.2	912.0	1,864.0
Delay	100.7	195.0	323.6	366.0	386.8	484.3	670.4	655.9	390.2	397.0
Delay Virtual Queue	0.6	2.8	75.1	289.6	470.6	537.1	803.0	968.1	343.1	387.8
Total Delay	101.3	197.8	398.7	655.7	857.4	1,021.4	1,473.4	1,624.0	733.3	784.8
Mean Queue	7.7	16.1	22.7	24.8	25.5	27.7	28.8	28.8	25.2	23.0
Max Queue	20.7	28.7	31.5	33.3	33.3	33.4	33.7	33.7	32.9	31.2
Mean Virtual Queue	0.1	4.2	22.8	44.9	54.4	78.1	113.8	151.2	50.0	57.7
Max Virtual Queue	2.1	12.1	42.1	56.5	68.9	95.2	137.4	170.1	65.7	72.2
Total Mean Queue	7.8	20.2	45.5	69.7	79.9	105.7	142.6	180.0	75.2	80.7
Total Max Queue	22.8	40.8	73.6	89.8	102.2	128.6	171.1	203.8	98.6	103.5
Speed	11.5	5.9	3.5	2.0	1.8	1.4	1.2	1.3	2.2	3.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	786.4	726.8	753.6	754.4	724.4	655.2	719.2	736.8	2,887.6	5,856.8
Delay	22.2	43.2	53.9	48.0	47.3	53.3	65.9	65.3	50.6	50.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	43.2	53.9	48.0	47.3	53.3	65.9	65.3	50.6	50.0
Mean Queue	2.5	5.4	7.6	6.5	6.5	7.3	8.3	9.2	7.0	6.7
Max Queue	16.3	21.3	22.6	22.2	22.7	22.8	22.5	23.3	22.6	21.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	5.4	7.6	6.5	6.5	7.3	8.3	9.2	7.0	6.7
Total Max Queue	16.3	21.3	22.6	22.2	22.7	22.8	22.5	23.3	22.6	21.8
Speed	30.0	29.3	29.8	29.2	31.3	31.6	31.9	32.4	30.5	30.7

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name:	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	614.4	650.0	630.8	540.0	529.2	529.6	569.2	570.4	2,229.6	4,633.6
Delay	1.3	1.7	2.5	4.2	8.9	9.9	4.9	3.5	6.4	4.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.7	2.5	4.2	8.9	9.9	4.9	3.5	6.4	4.8
Mean Queue	0.0	0.0	0.1	0.3	1.4	1.5	1.1	1.0	0.8	0.7
Max Queue	1.9	1.6	2.5	3.6	3.6	3.9	4.0	3.9	3.4	3.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.3	1.4	1.5	1.1	1.0	0.8	0.7
Total Max Queue	1.9	1.6	2.5	3.6	3.6	3.9	4.0	3.9	3.4	3.2
Speed	45.5	44.2	41.8	43.1	40.8	40.0	37.1	39.6	41.4	41.5

Arm Reference:	B
Name:	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	350.4	532.4	490.0	502.0	452.8	407.6	373.2	346.8	1,852.4	3,455.2
Delay	2.5	3.4	3.3	5.1	14.4	16.4	3.7	3.7	9.8	6.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.5	3.4	3.3	5.1	14.4	16.4	3.7	3.7	9.8	6.9
Mean Queue	0.1	0.1	0.1	0.4	2.4	1.7	1.4	1.4	1.1	1.0
Max Queue	1.7	2.8	1.9	3.5	4.1	3.8	3.3	2.9	3.3	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.4	2.4	1.7	1.4	1.4	1.1	1.0
Total Max Queue	1.7	2.8	1.9	3.5	4.1	3.8	3.3	2.9	3.3	3.0
Speed	50.2	48.9	48.5	48.9	45.6	48.2	48.8	49.5	47.8	48.5

Arm Reference:	C
Name:	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	699.6	827.6	789.6	814.0	762.4	736.8	686.8	642.4	3,102.8	5,959.2
Delay	2.4	4.2	4.1	3.7	3.3	3.6	3.3	2.5	3.7	3.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	4.2	4.1	3.7	3.3	3.6	3.3	2.5	3.7	3.4
Mean Queue	0.2	0.4	0.4	0.3	0.3	0.7	0.6	0.6	0.4	0.4
Max Queue	3.8	4.2	3.9	3.4	3.7	3.9	3.8	3.4	3.7	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.4	0.4	0.3	0.3	0.7	0.6	0.6	0.4	0.4
Total Max Queue	3.8	4.2	3.9	3.4	3.7	3.9	3.8	3.4	3.7	3.8
Speed	34.3	26.8	27.9	28.8	30.8	30.8	30.9	33.9	29.6	30.4

Arm Reference:	D
Name:	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	32.8	31.2	78.0	78.8	94.4	78.4	107.6	117.6	329.6	618.8
Delay	10.8	12.8	14.1	13.0	12.5	13.4	11.8	11.0	13.3	12.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	12.8	14.1	13.0	12.5	13.4	11.8	11.0	13.3	12.5
Mean Queue	0.0	0.0	0.1	0.1	0.4	0.5	0.5	0.5	0.3	0.3
Max Queue	1.2	1.3	1.9	1.4	2.7	2.0	2.0	2.7	2.0	1.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.1	0.1	0.4	0.5	0.5	0.5	0.3	0.3
Total Max Queue	1.2	1.3	1.9	1.4	2.7	2.0	2.0	2.7	2.0	1.9
Speed	50.2	50.2	50.7	49.1	49.9	50.2	49.4	50.7	50.0	50.1

Land at South Tees Development Corporation
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J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	677.2	707.2	763.6	711.2	704.4	734.4	720.0	741.6	2,913.6	5,759.6
Delay	3.2	3.6	3.2	3.2	3.6	2.9	2.9	3.8	3.2	3.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.2	3.6	3.2	3.2	3.6	2.9	2.9	3.8	3.2	3.3
Mean Queue	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Max Queue	3.6	3.7	3.5	3.0	3.3	2.8	3.0	3.1	3.2	3.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Total Max Queue	3.6	3.7	3.5	3.0	3.3	2.8	3.0	3.1	3.2	3.2
Speed	40.5	40.7	40.6	40.4	39.9	41.0	41.3	39.1	40.5	40.5

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	374.4	346.8	444.8	363.2	460.4	350.8	372.8	393.6	1,619.2	3,106.8
Delay	5.4	4.1	4.6	4.4	4.8	4.3	5.5	4.9	4.5	4.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.4	4.1	4.6	4.4	4.8	4.3	5.5	4.9	4.5	4.7
Mean Queue	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1
Max Queue	3.1	1.8	2.7	1.9	3.1	1.5	2.3	2.2	2.3	2.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1
Total Max Queue	3.1	1.8	2.7	1.9	3.1	1.5	2.3	2.2	2.3	2.3
Speed	50.0	50.7	50.2	51.0	49.1	50.7	50.3	50.7	50.3	50.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	666.0	676.4	658.4	638.0	648.0	666.4	643.6	633.2	2,610.8	5,230.0
Delay	2.3	2.2	2.9	2.6	3.0	2.2	2.4	2.6	2.7	2.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	2.2	2.9	2.6	3.0	2.2	2.4	2.6	2.7	2.6
Mean Queue	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Max Queue	3.2	2.7	2.8	3.2	3.4	3.0	3.0	2.2	3.1	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2
Total Max Queue	3.2	2.7	2.8	3.2	3.4	3.0	3.0	2.2	3.1	3.0
Speed	35.6	34.7	32.2	34.4	32.6	35.2	33.8	33.4	33.6	33.9

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	150.0	138.4	142.0	170.0	165.6	154.0	138.8	165.6	631.6	1,224.4
Delay	8.3	8.9	9.5	9.1	10.6	9.3	7.3	9.0	9.6	9.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	8.9	9.5	9.1	10.6	9.3	7.3	9.0	9.6	9.1
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	2.7	2.3	2.5	2.5	2.4	2.2	2.2	2.5	2.4	2.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	2.7	2.3	2.5	2.5	2.4	2.2	2.2	2.5	2.4	2.4
Speed	50.5	50.2	50.3	50.4	50.3	50.8	50.6	51.8	50.5	50.6

Land at South Tees Development Corporation
Junction Statistics

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J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	814.8	772.0	794.0	707.6	662.0	718.4	647.6	559.6	2,882.0	5,676.0
Delay	4.0	4.2	3.8	8.0	6.5	3.2	2.5	1.5	5.4	4.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	4.2	3.8	8.0	6.5	3.2	2.5	1.5	5.4	4.3
Mean Queue	0.2	0.3	0.5	1.6	2.5	2.3	2.2	2.1	1.7	1.5
Max Queue	4.5	3.9	5.4	6.2	6.2	5.5	4.5	3.7	5.8	5.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.3	0.5	1.6	2.5	2.3	2.2	2.1	1.7	1.5
Total Max Queue	4.5	3.9	5.4	6.2	6.2	5.5	4.5	3.7	5.8	5.1
Speed	38.5	39.0	39.8	35.6	34.7	41.0	41.9	45.0	37.8	39.3

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	506.8	482.0	604.0	434.8	530.4	328.0	355.6	232.0	1,897.2	3,473.6
Delay	5.7	4.0	5.8	8.5	6.3	3.7	3.7	3.2	6.1	5.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	4.0	5.8	8.5	6.3	3.7	3.7	3.2	6.1	5.2
Mean Queue	0.2	0.2	0.8	2.1	3.2	3.0	3.0	2.9	2.3	2.0
Max Queue	3.7	1.3	4.9	5.2	5.8	3.8	4.2	3.7	4.9	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.8	2.1	3.2	3.0	3.0	2.9	2.3	2.0
Total Max Queue	3.7	1.3	4.9	5.2	5.8	3.8	4.2	3.7	4.9	4.2
Speed	49.8	50.8	49.0	50.2	48.8	51.6	51.3	51.6	49.9	50.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	837.2	768.4	682.0	621.2	548.8	411.2	398.0	382.0	2,263.2	4,648.8
Delay	4.6	3.9	5.6	4.2	6.4	2.8	2.3	1.8	4.8	4.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	3.9	5.6	4.2	6.4	2.8	2.3	1.8	4.8	4.0
Mean Queue	0.4	0.3	0.5	0.9	1.3	1.0	1.0	1.0	0.9	0.8
Max Queue	4.4	4.0	4.2	4.3	4.4	3.5	2.3	2.6	4.1	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.3	0.5	0.9	1.3	1.0	1.0	1.0	0.9	0.8
Total Max Queue	4.4	4.0	4.2	4.3	4.4	3.5	2.3	2.6	4.1	3.8
Speed	27.6	28.8	24.9	29.8	23.1	32.7	34.8	37.7	27.7	29.7

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	156.8	146.8	141.2	137.2	174.4	100.4	68.4	57.2	553.2	982.4
Delay	18.0	16.0	17.2	14.2	20.2	10.7	8.0	8.4	15.6	14.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	16.0	17.2	14.2	20.2	10.7	8.0	8.4	15.6	14.2
Mean Queue	0.2	0.2	0.2	0.5	1.3	1.2	1.1	1.1	0.8	0.7
Max Queue	3.2	3.1	2.8	2.6	4.0	2.7	2.1	2.2	3.0	2.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.5	1.3	1.2	1.1	1.1	0.8	0.7
Total Max Queue	3.2	3.1	2.8	2.6	4.0	2.7	2.1	2.2	3.0	2.9
Speed	50.7	51.9	51.1	50.5	51.3	50.7	51.2	51.0	50.9	51.0

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Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	632.8	702.0	634.0	564.0	622.0	599.6	681.6	591.2	2,419.6	5,027.2
Delay	45.0	45.5	45.4	44.7	45.1	45.3	45.5	45.4	45.1	45.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	45.5	45.4	44.7	45.1	45.3	45.5	45.4	45.1	45.2
Mean Queue	2.2	2.9	2.2	2.3	2.2	2.5	2.4	2.4	2.3	2.4
Max Queue	7.5	8.5	7.7	7.2	7.1	8.0	7.7	7.3	7.5	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.9	2.2	2.3	2.2	2.5	2.4	2.4	2.3	2.4
Total Max Queue	7.5	8.5	7.7	7.2	7.1	8.0	7.7	7.3	7.5	7.6
Speed	9.3	9.2	9.1	9.3	9.2	9.0	9.1	9.1	9.2	9.2

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	348.4	512.8	473.6	556.4	464.8	442.8	412.0	386.0	1,937.6	3,596.8
Delay	26.7	32.0	36.7	40.4	33.5	29.2	27.4	26.9	35.0	32.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.7	32.0	36.7	40.4	33.5	29.2	27.4	26.9	35.0	32.0
Mean Queue	2.2	3.6	4.5	5.0	3.8	2.9	2.7	2.1	4.1	3.4
Max Queue	13.1	17.3	16.5	18.2	16.3	14.7	13.6	13.1	16.4	15.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	3.6	4.5	5.0	3.8	2.9	2.7	2.1	4.1	3.4
Total Max Queue	13.1	17.3	16.5	18.2	16.3	14.7	13.6	13.1	16.4	15.5
Speed	42.3	34.3	31.9	28.9	34.8	38.5	38.2	42.3	33.5	36.1

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	770.0	738.4	844.0	761.2	798.0	753.6	866.4	723.6	3,156.8	6,255.2
Delay	18.0	21.5	21.8	20.2	21.5	21.7	22.6	21.5	21.3	21.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	21.5	21.8	20.2	21.5	21.7	22.6	21.5	21.3	21.1
Mean Queue	1.8	2.5	2.4	2.5	2.1	2.6	2.6	2.5	2.4	2.4
Max Queue	7.1	6.8	7.3	7.1	7.3	6.9	6.9	7.0	7.2	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.8	2.5	2.4	2.5	2.1	2.6	2.6	2.5	2.4	2.4
Total Max Queue	7.1	6.8	7.3	7.1	7.3	6.9	6.9	7.0	7.2	7.1
Speed	29.1	27.8	28.7	29.6	28.1	27.8	27.1	28.0	28.6	28.3

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	26.4	30.8	81.2	75.6	78.0	98.0	98.0	116.4	332.8	604.4
Delay	58.7	62.1	74.3	71.2	83.7	83.4	80.9	96.0	78.2	76.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	62.1	74.3	71.2	83.7	83.4	80.9	96.0	78.2	76.5
Mean Queue	0.2	0.2	0.8	0.8	1.0	1.0	1.2	2.1	0.9	0.9
Max Queue	2.9	2.4	4.0	3.9	4.7	5.3	5.8	7.0	4.5	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.8	0.8	1.0	1.0	1.2	2.1	0.9	0.9
Total Max Queue	2.9	2.4	4.0	3.9	4.7	5.3	5.8	7.0	4.5	4.5
Speed	47.4	47.0	46.5	45.9	44.4	43.1	41.8	36.4	45.0	44.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	939.6	844.8	966.8	838.4	948.8	864.4	982.4	853.6	3,618.4	7,238.8
Delay	49.4	49.4	49.2	51.1	50.6	51.8	50.0	50.3	50.7	50.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	49.4	49.2	51.1	50.6	51.8	50.0	50.3	50.7	50.3
Mean Queue	3.6	3.7	3.7	3.8	3.8	4.0	3.8	3.9	3.8	3.8
Max Queue	10.5	10.2	10.6	10.2	10.9	10.4	10.7	10.3	10.5	10.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.6	3.7	3.7	3.8	3.8	4.0	3.8	3.9	3.8	3.8
Total Max Queue	10.5	10.2	10.6	10.2	10.9	10.4	10.7	10.3	10.5	10.5
Speed	8.5	8.7	8.5	8.5	8.5	8.5	8.1	8.2	8.5	8.5

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	384.0	368.8	438.4	394.4	431.2	356.4	378.0	387.2	1,620.4	3,138.4
Delay	27.1	27.0	27.6	31.3	27.0	26.2	25.6	29.2	28.0	27.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	27.0	27.6	31.3	27.0	26.2	25.6	29.2	28.0	27.7
Mean Queue	2.1	1.9	2.6	2.3	2.5	2.0	1.9	2.4	2.3	2.2
Max Queue	14.6	13.5	16.4	14.5	14.6	12.1	12.1	13.9	14.4	14.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	1.9	2.6	2.3	2.5	2.0	1.9	2.4	2.3	2.2
Total Max Queue	14.6	13.5	16.4	14.5	14.6	12.1	12.1	13.9	14.4	14.0
Speed	42.9	44.6	38.9	42.4	40.4	43.3	44.0	42.5	41.3	42.3

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	700.8	657.2	745.6	636.0	737.6	664.8	680.0	632.0	2,784.0	5,454.0
Delay	21.9	21.3	22.2	20.6	21.4	22.8	22.1	20.7	21.7	21.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	21.3	22.2	20.6	21.4	22.8	22.1	20.7	21.7	21.6
Mean Queue	2.1	2.2	2.2	2.1	2.0	2.4	1.9	2.0	2.2	2.1
Max Queue	7.3	7.3	7.2	7.1	7.1	7.2	7.4	7.2	7.2	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.2	2.2	2.1	2.0	2.4	1.9	2.0	2.2	2.1
Total Max Queue	7.3	7.3	7.2	7.1	7.1	7.2	7.4	7.2	7.2	7.2
Speed	27.9	28.9	28.8	29.1	28.6	28.2	27.0	28.2	28.7	28.4

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	135.6	146.8	124.8	138.4	152.0	147.6	138.8	143.6	562.8	1,127.6
Delay	103.9	93.6	87.2	115.8	122.6	119.0	141.4	150.9	111.1	116.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.9	93.6	87.2	115.8	122.6	119.0	141.4	150.9	111.1	116.2
Mean Queue	2.2	2.1	1.6	2.9	3.2	3.2	3.9	4.4	2.8	2.9
Max Queue	7.6	7.6	6.4	7.6	7.6	7.8	7.5	8.9	7.4	7.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.1	1.6	2.9	3.2	3.2	3.9	4.4	2.8	2.9
Total Max Queue	7.6	7.6	6.4	7.6	7.6	7.8	7.5	8.9	7.4	7.6
Speed	36.3	35.3	39.1	29.9	25.6	26.8	19.9	18.6	30.3	29.1

2025 Do Minimum

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	932.4	760.4	870.0	785.2	857.2	813.6	908.4	885.6	3,326.0	6,812.8
Delay	54.7	63.9	67.7	67.4	75.0	60.9	59.1	58.9	67.8	63.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	63.9	67.7	67.4	75.0	60.9	59.1	58.9	67.8	63.9
Mean Queue	4.1	4.5	4.7	5.1	5.1	4.5	4.4	4.7	4.8	4.6
Max Queue	10.8	10.9	11.7	12.2	11.3	12.0	11.2	12.2	11.8	11.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.1	4.5	4.7	5.1	5.1	4.5	4.4	4.7	4.8	4.6
Total Max Queue	10.8	10.9	11.7	12.2	11.3	12.0	11.2	12.2	11.8	11.6
Speed	7.8	7.0	6.9	6.6	6.5	6.9	7.3	7.1	6.7	7.0

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	489.6	491.2	554.4	520.0	591.2	591.6	422.4	305.6	2,257.2	3,966.0
Delay	29.1	38.2	79.5	62.6	67.9	54.9	35.6	29.6	66.2	51.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	38.2	79.5	62.6	67.9	54.9	35.6	29.6	66.2	51.5
Mean Queue	3.5	3.4	7.2	5.8	9.7	6.9	3.5	1.7	7.4	5.5
Max Queue	18.0	17.8	21.3	19.3	19.9	18.9	16.2	11.4	19.9	18.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	3.4	7.2	5.8	9.7	6.9	3.5	1.7	7.4	5.5
Total Max Queue	18.0	17.8	21.3	19.3	19.9	18.9	16.2	11.4	19.9	18.1
Speed	36.9	38.0	29.3	31.5	24.3	27.8	39.6	46.8	28.2	33.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	790.4	675.2	802.4	682.8	749.6	531.6	534.4	470.4	2,766.4	5,236.8
Delay	32.6	30.9	30.8	27.6	26.0	24.8	25.7	28.1	27.3	28.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	30.9	30.8	27.6	26.0	24.8	25.7	28.1	27.3	28.2
Mean Queue	3.8	3.5	3.4	3.1	2.6	1.9	1.8	2.0	2.7	2.8
Max Queue	7.4	7.0	7.2	7.1	7.0	7.2	7.2	7.2	7.1	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	3.5	3.4	3.1	2.6	1.9	1.8	2.0	2.7	2.8
Total Max Queue	7.4	7.0	7.2	7.1	7.0	7.2	7.2	7.2	7.1	7.2
Speed	25.3	25.2	26.8	27.0	27.8	23.8	24.1	22.4	26.4	25.4

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	161.6	162.8	129.2	151.2	223.2	111.2	93.6	71.6	614.8	1,104.4
Delay	53.8	65.9	78.7	65.2	55.7	53.3	52.9	51.1	63.2	60.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.8	65.9	78.7	65.2	55.7	53.3	52.9	51.1	63.2	60.0
Mean Queue	1.1	1.6	1.4	1.0	1.7	0.8	0.6	0.4	1.2	1.1
Max Queue	6.9	6.8	6.2	5.7	8.4	5.4	4.2	3.5	6.4	5.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.6	1.4	1.0	1.7	0.8	0.6	0.4	1.2	1.1
Total Max Queue	6.9	6.8	6.2	5.7	8.4	5.4	4.2	3.5	6.4	5.9
Speed	45.8	42.6	42.4	46.6	39.8	45.5	48.3	48.7	43.6	44.8

2030 Do Minimum

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	703.6	772.8	673.6	574.0	647.6	646.8	726.0	631.2	2,542.0	5,375.6
Delay	46.5	46.3	45.9	44.9	43.8	45.0	46.7	45.2	44.9	45.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	46.3	45.9	44.9	43.8	45.0	46.7	45.2	44.9	45.5
Mean Queue	2.5	3.2	2.4	2.3	2.2	2.6	2.6	2.6	2.4	2.5
Max Queue	8.1	9.4	7.9	7.2	7.1	8.6	8.1	8.3	7.7	8.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	3.2	2.4	2.3	2.2	2.6	2.6	2.6	2.4	2.5
Total Max Queue	8.1	9.4	7.9	7.2	7.1	8.6	8.1	8.3	7.7	8.0
Speed	8.8	8.7	9.1	9.3	9.6	9.1	8.8	9.3	9.3	9.1

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	353.2	520.0	492.4	520.0	512.4	475.2	417.6	407.6	2,000.0	3,698.4
Delay	25.1	33.4	38.2	34.7	34.3	28.5	27.9	28.2	33.9	31.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	33.4	38.2	34.7	34.3	28.5	27.9	28.2	33.9	31.6
Mean Queue	2.0	3.9	4.7	4.0	4.3	2.9	2.8	2.4	4.0	3.5
Max Queue	13.8	17.0	16.9	17.1	17.2	15.6	15.2	15.6	16.7	16.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.0	3.9	4.7	4.0	4.3	2.9	2.8	2.4	4.0	3.5
Total Max Queue	13.8	17.0	16.9	17.1	17.2	15.6	15.2	15.6	16.7	16.1
Speed	43.4	33.3	31.7	32.3	31.6	36.7	38.4	39.3	33.1	35.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	818.4	750.4	857.2	768.4	848.0	799.2	830.4	736.0	3,272.8	6,408.0
Delay	18.7	20.3	22.7	21.5	22.2	21.7	23.5	22.0	22.0	21.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.7	20.3	22.7	21.5	22.2	21.7	23.5	22.0	22.0	21.6
Mean Queue	2.1	2.4	2.6	2.6	2.5	2.8	2.5	2.5	2.6	2.5
Max Queue	7.2	6.8	7.2	7.0	7.1	7.5	7.1	7.0	7.2	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.1	2.4	2.6	2.6	2.5	2.8	2.5	2.5	2.6	2.5
Total Max Queue	7.2	6.8	7.2	7.0	7.1	7.5	7.1	7.0	7.2	7.1
Speed	29.9	29.5	28.9	29.9	29.8	29.6	27.1	27.6	29.6	29.1

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	36.4	25.2	88.4	84.4	82.8	88.4	107.2	115.2	344.0	628.0
Delay	59.8	57.0	71.8	92.5	81.9	78.9	71.6	108.4	81.3	78.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	57.0	71.8	92.5	81.9	78.9	71.6	108.4	81.3	78.1
Mean Queue	0.3	0.2	0.9	1.2	1.1	0.9	1.1	2.2	1.0	1.0
Max Queue	3.0	2.2	4.5	4.9	4.6	4.5	5.4	6.5	4.6	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.3	0.2	0.9	1.2	1.1	0.9	1.1	2.2	1.0	1.0
Total Max Queue	3.0	2.2	4.5	4.9	4.6	4.5	5.4	6.5	4.6	4.5
Speed	48.3	46.6	44.0	38.5	40.7	44.4	43.2	33.3	41.9	42.3

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	961.2	834.4	947.2	847.2	976.0	889.6	968.8	825.6	3,660.0	7,250.0
Delay	50.9	49.4	49.2	51.3	51.8	52.2	51.3	50.6	51.1	50.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	49.4	49.2	51.3	51.8	52.2	51.3	50.6	51.1	50.9
Mean Queue	3.9	3.7	3.6	3.9	3.9	4.2	3.9	3.8	3.9	3.9
Max Queue	10.8	10.3	10.4	10.7	10.8	10.8	10.5	9.9	10.7	10.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.9	3.7	3.6	3.9	3.9	4.2	3.9	3.8	3.9	3.9
Total Max Queue	10.8	10.3	10.4	10.7	10.8	10.8	10.5	9.9	10.7	10.5
Speed	8.5	8.4	8.5	8.8	8.7	8.5	8.8	8.6	8.6	8.6

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	386.0	375.6	430.4	377.2	460.4	382.0	360.0	405.6	1,650.0	3,177.2
Delay	29.6	27.3	33.8	27.7	27.6	29.6	25.9	27.4	29.7	28.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.6	27.3	33.8	27.7	27.6	29.6	25.9	27.4	29.7	28.7
Mean Queue	2.2	2.1	2.7	2.1	2.8	2.3	1.9	2.3	2.5	2.3
Max Queue	17.0	12.4	16.3	12.3	16.5	14.7	11.8	13.6	15.0	14.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.1	2.7	2.1	2.8	2.3	1.9	2.3	2.5	2.3
Total Max Queue	17.0	12.4	16.3	12.3	16.5	14.7	11.8	13.6	15.0	14.4
Speed	42.1	44.5	41.5	45.8	38.9	40.7	43.9	42.0	41.7	42.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	816.8	754.8	869.6	743.6	853.6	748.8	775.2	736.8	3,215.6	6,299.2
Delay	23.7	23.8	24.9	23.4	23.9	23.2	22.1	22.7	23.8	23.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.7	23.8	24.9	23.4	23.9	23.2	22.1	22.7	23.8	23.5
Mean Queue	2.8	3.0	2.9	2.9	2.7	2.8	2.3	2.7	2.8	2.8
Max Queue	7.3	7.3	7.4	7.0	7.1	7.1	7.2	6.8	7.2	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.8	3.0	2.9	2.9	2.7	2.8	2.3	2.7	2.8	2.8
Total Max Queue	7.3	7.3	7.4	7.0	7.1	7.1	7.2	6.8	7.2	7.2
Speed	29.0	30.3	30.5	30.1	30.1	30.2	29.4	29.9	30.2	30.0

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8		
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	12:30 - 13:30	12:00 - 14:00
Flow	170.8	133.6	150.8	139.2	148.8	150.0	142.0	149.2	588.8	1,184.4
Delay	127.9	138.6	118.8	125.1	142.3	123.1	149.8	161.0	127.3	134.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	127.9	138.6	118.8	125.1	142.3	123.1	149.8	161.0	127.3	134.9
Mean Queue	3.7	3.8	2.8	3.4	4.0	3.5	4.1	4.9	3.4	3.7
Max Queue	8.6	7.6	8.1	8.4	8.4	7.8	8.5	9.4	8.2	8.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	3.8	2.8	3.4	4.0	3.5	4.1	4.9	3.4	3.7
Total Max Queue	8.6	7.6	8.1	8.4	8.4	7.8	8.5	9.4	8.2	8.3
Speed	24.6	22.9	30.1	24.8	20.4	25.2	18.0	16.1	25.1	23.0

2030 Do Minimum

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	924.0	813.6	951.6	858.4	950.4	849.6	946.0	862.8	3,610.0	7,156.4
Delay	51.6	52.8	53.9	52.4	51.7	52.0	51.7	55.0	52.5	52.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	52.8	53.9	52.4	51.7	52.0	51.7	55.0	52.5	52.6
Mean Queue	3.7	3.9	4.1	4.1	3.9	4.0	3.9	4.4	4.0	4.0
Max Queue	11.1	10.9	11.8	12.0	11.2	11.7	11.5	11.8	11.7	11.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	3.9	4.1	4.1	3.9	4.0	3.9	4.4	4.0	4.0
Total Max Queue	11.1	10.9	11.8	12.0	11.2	11.7	11.5	11.8	11.7	11.5
Speed	8.0	7.9	7.7	7.8	8.1	7.8	8.0	7.6	7.8	7.8

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	508.0	488.0	572.4	553.6	578.8	544.8	448.0	309.2	2,249.6	4,002.8
Delay	33.3	29.7	51.0	50.8	57.2	53.6	32.5	29.5	53.2	43.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.3	29.7	51.0	50.8	57.2	53.6	32.5	29.5	53.2	43.4
Mean Queue	4.2	3.1	8.1	6.3	9.4	6.5	3.6	1.8	7.6	5.6
Max Queue	18.7	15.6	18.5	17.6	18.8	18.2	15.5	11.0	18.3	16.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.2	3.1	8.1	6.3	9.4	6.5	3.6	1.8	7.6	5.6
Total Max Queue	18.7	15.6	18.5	17.6	18.8	18.2	15.5	11.0	18.3	16.9
Speed	35.2	37.4	26.1	28.0	25.4	28.7	38.5	47.9	27.0	32.7

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	849.2	732.0	829.2	720.4	836.8	644.8	616.8	543.2	3,031.2	5,772.4
Delay	28.5	28.5	27.8	26.9	27.3	25.4	24.1	22.6	26.9	26.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.5	28.5	27.8	26.9	27.3	25.4	24.1	22.6	26.9	26.4
Mean Queue	3.6	3.4	3.1	3.2	3.1	2.6	1.9	1.9	3.0	2.9
Max Queue	7.4	7.0	7.0	7.1	7.1	7.3	7.2	7.2	7.1	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.6	3.4	3.1	3.2	3.1	2.6	1.9	1.9	3.0	2.9
Total Max Queue	7.4	7.0	7.0	7.1	7.1	7.3	7.2	7.2	7.1	7.2
Speed	27.0	26.8	27.5	27.3	28.3	27.9	25.4	26.7	27.7	27.2

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	164.8	170.0	129.6	144.0	217.6	106.4	92.8	69.6	597.6	1,094.8
Delay	54.8	52.1	55.7	55.6	58.8	54.1	56.0	61.0	56.1	56.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.8	52.1	55.7	55.6	58.8	54.1	56.0	61.0	56.1	56.0
Mean Queue	1.2	1.2	0.9	0.9	1.7	0.8	0.6	0.5	1.1	1.0
Max Queue	7.2	6.0	5.4	6.0	8.4	4.8	4.2	4.0	6.2	5.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.2	1.2	0.9	0.9	1.7	0.8	0.6	0.5	1.1	1.0
Total Max Queue	7.2	6.0	5.4	6.0	8.4	4.8	4.2	4.0	6.2	5.8
Speed	44.8	45.0	46.7	46.1	41.2	46.7	48.7	46.8	45.2	45.7

2025 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	674.4	750.8	675.6	571.6	658.8	605.6	707.2	613.6	2,511.6	5,257.6
Delay	43.4	45.4	45.6	46.2	43.7	44.1	44.3	44.9	44.9	44.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	45.4	45.6	46.2	43.7	44.1	44.3	44.9	44.9	44.7
Mean Queue	2.3	3.1	2.3	2.4	2.2	2.4	2.4	2.5	2.3	2.4
Max Queue	8.4	9.2	8.4	7.6	7.7	7.8	8.1	7.7	7.9	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	3.1	2.3	2.4	2.2	2.4	2.4	2.5	2.3	2.4
Total Max Queue	8.4	9.2	8.4	7.6	7.7	7.8	8.1	7.7	7.9	8.1
Speed	9.6	9.1	9.0	8.9	9.6	9.3	9.3	9.4	9.2	9.3

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	355.6	475.2	484.8	538.0	493.6	462.8	413.2	396.0	1,979.2	3,619.2
Delay	27.2	31.3	33.2	40.5	33.2	31.8	25.0	28.4	34.7	31.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	31.3	33.2	40.5	33.2	31.8	25.0	28.4	34.7	31.7
Mean Queue	2.2	3.3	3.9	5.1	4.1	3.2	2.4	2.3	4.1	3.4
Max Queue	14.5	16.4	16.3	17.7	16.9	16.4	14.3	15.3	16.8	16.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	3.3	3.9	5.1	4.1	3.2	2.4	2.3	4.1	3.4
Total Max Queue	14.5	16.4	16.3	17.7	16.9	16.4	14.3	15.3	16.8	16.1
Speed	43.6	35.6	35.5	30.1	34.4	36.0	40.3	38.6	34.0	36.4

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	836.8	761.2	882.4	799.6	862.0	780.4	875.2	796.8	3,324.4	6,594.4
Delay	20.3	23.0	23.8	23.2	22.8	23.7	26.0	24.2	23.3	23.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.3	23.0	23.8	23.2	22.8	23.7	26.0	24.2	23.3	23.4
Mean Queue	2.4	2.8	2.8	3.0	2.6	3.0	3.0	3.1	2.9	2.8
Max Queue	7.0	7.1	7.2	7.2	7.0	7.3	7.3	7.2	7.2	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.8	2.8	3.0	2.6	3.0	3.0	3.1	2.9	2.8
Total Max Queue	7.0	7.1	7.2	7.2	7.0	7.3	7.3	7.2	7.2	7.2
Speed	28.8	27.8	27.7	28.3	27.8	28.2	25.6	27.4	28.0	27.7

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
Statistic	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	25.6	27.6	82.8	83.2	82.8	100.8	104.4	119.2	349.6	626.4
Delay	67.2	71.6	62.8	62.9	86.2	96.3	79.2	105.0	77.1	78.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.2	71.6	62.8	62.9	86.2	96.3	79.2	105.0	77.1	78.7
Mean Queue	0.2	0.2	0.7	0.7	1.1	1.4	1.2	2.3	1.0	1.0
Max Queue	2.9	2.1	3.8	4.4	4.9	5.7	5.4	6.6	4.7	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.7	0.7	1.1	1.4	1.2	2.3	1.0	1.0
Total Max Queue	2.9	2.1	3.8	4.4	4.9	5.7	5.4	6.6	4.7	4.5
Speed	47.4	47.1	46.8	45.4	40.0	39.3	41.3	33.7	42.9	42.7

2025 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	960.8	847.6	985.2	837.6	924.4	804.4	888.4	753.2	3,551.6	7,001.6
Delay	50.7	50.8	49.1	51.5	53.4	52.6	48.9	49.2	51.6	50.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	50.8	49.1	51.5	53.4	52.6	48.9	49.2	51.6	50.9
Mean Queue	3.8	3.9	3.7	3.9	3.9	3.8	3.4	3.4	3.8	3.7
Max Queue	10.7	10.1	10.3	10.7	10.2	10.2	9.6	9.3	10.4	10.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	3.9	3.7	3.9	3.9	3.8	3.4	3.4	3.8	3.7
Total Max Queue	10.7	10.1	10.3	10.7	10.2	10.2	9.6	9.3	10.4	10.2
Speed	8.4	8.2	8.5	8.4	8.4	8.8	8.7	8.5	8.5	8.5

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	381.2	394.4	411.6	386.0	459.6	385.6	372.0	436.0	1,642.8	3,226.4
Delay	25.2	27.5	27.4	27.6	27.2	29.5	28.3	29.5	27.9	27.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	27.5	27.4	27.6	27.2	29.5	28.3	29.5	27.9	27.8
Mean Queue	1.9	2.0	2.4	2.1	2.7	2.3	2.3	2.7	2.4	2.3
Max Queue	16.1	13.8	13.9	13.9	15.8	14.0	13.3	15.0	14.4	14.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	2.0	2.4	2.1	2.7	2.3	2.3	2.7	2.4	2.3
Total Max Queue	16.1	13.8	13.9	13.9	15.8	14.0	13.3	15.0	14.4	14.5
Speed	43.9	44.1	42.2	43.6	39.6	41.5	42.3	39.3	41.7	42.0

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	795.6	707.6	839.6	720.4	851.2	730.8	797.6	696.4	3,142.0	6,139.2
Delay	22.3	22.2	24.6	22.8	23.4	22.5	22.0	20.4	23.3	22.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	22.2	24.6	22.8	23.4	22.5	22.0	20.4	23.3	22.6
Mean Queue	2.5	2.5	2.8	2.7	2.6	2.6	2.3	2.2	2.7	2.5
Max Queue	7.2	7.4	7.1	7.2	7.4	7.0	7.2	7.3	7.2	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.5	2.5	2.8	2.7	2.6	2.6	2.3	2.2	2.7	2.5
Total Max Queue	7.2	7.4	7.1	7.2	7.4	7.0	7.2	7.3	7.2	7.2
Speed	28.0	27.9	28.4	28.6	28.8	28.7	28.8	29.0	28.6	28.5

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	139.6	138.4	135.2	135.2	155.2	142.4	148.4	146.4	568.0	1,140.8
Delay	95.1	92.8	96.1	132.3	153.4	130.8	118.6	137.6	128.1	120.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	95.1	92.8	96.1	132.3	153.4	130.8	118.6	137.6	128.1	120.5
Mean Queue	1.9	2.1	2.0	3.6	4.2	3.6	3.2	4.2	3.3	3.1
Max Queue	7.1	6.7	7.4	8.4	8.7	8.0	7.7	8.7	8.1	7.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.9	2.1	2.0	3.6	4.2	3.6	3.2	4.2	3.3	3.1
Total Max Queue	7.1	6.7	7.4	8.4	8.7	8.0	7.7	8.7	8.1	7.9
Speed	37.0	36.3	36.7	24.9	17.3	22.0	25.9	20.5	25.2	27.3

2025 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	922.8	674.8	700.0	618.8	707.2	638.4	697.6	665.2	2,664.4	5,624.8
Delay	59.9	74.0	87.6	72.5	86.8	68.3	79.0	73.3	78.8	75.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.9	74.0	87.6	72.5	86.8	68.3	79.0	73.3	78.8	75.6
Mean Queue	4.7	4.9	4.8	4.5	4.8	4.1	4.5	4.4	4.6	4.6
Max Queue	11.5	10.4	10.1	10.0	10.1	9.7	10.0	10.1	10.0	10.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.7	4.9	4.8	4.5	4.8	4.1	4.5	4.4	4.6	4.6
Total Max Queue	11.5	10.4	10.1	10.0	10.1	9.7	10.0	10.1	10.0	10.2
Speed	7.3	6.8	6.2	7.0	6.0	7.0	6.4	6.7	6.6	6.7

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	535.2	532.8	579.6	564.8	506.8	606.0	517.6	412.0	2,257.2	4,254.8
Delay	37.5	55.7	85.4	121.4	144.7	82.2	82.4	54.1	108.4	85.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	55.7	85.4	121.4	144.7	82.2	82.4	54.1	108.4	85.7
Mean Queue	4.8	4.7	8.4	8.8	11.9	9.7	8.3	3.9	9.7	7.8
Max Queue	19.7	19.4	21.9	22.3	22.6	21.8	20.9	16.9	22.2	20.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.8	4.7	8.4	8.8	11.9	9.7	8.3	3.9	9.7	7.8
Total Max Queue	19.7	19.4	21.9	22.3	22.6	21.8	20.9	16.9	22.2	20.9
Speed	34.6	34.1	26.8	26.7	23.7	23.8	27.6	37.3	25.3	28.9

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	806.8	685.6	783.6	672.8	816.8	657.6	684.0	524.8	2,930.8	5,632.0
Delay	31.3	31.0	30.7	29.6	29.6	27.5	24.5	24.9	29.3	28.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	31.0	30.7	29.6	29.6	27.5	24.5	24.9	29.3	28.7
Mean Queue	3.7	3.5	3.3	3.3	3.3	2.9	2.1	2.0	3.2	3.0
Max Queue	7.1	7.0	7.2	7.1	7.0	7.0	7.3	7.1	7.1	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	3.5	3.3	3.3	3.3	2.9	2.1	2.0	3.2	3.0
Total Max Queue	7.1	7.0	7.2	7.1	7.0	7.0	7.3	7.1	7.1	7.1
Speed	25.5	26.1	26.6	27.4	28.0	28.0	25.8	24.4	27.5	26.6

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	167.2	162.0	125.6	140.0	182.0	123.2	95.2	70.4	570.8	1,065.6
Delay	59.4	63.0	70.3	83.8	92.5	78.9	71.2	54.7	81.4	72.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.4	63.0	70.3	83.8	92.5	78.9	71.2	54.7	81.4	72.8
Mean Queue	1.4	1.4	1.2	1.4	2.7	1.7	0.8	0.5	1.8	1.4
Max Queue	7.1	6.2	5.8	6.8	9.0	6.5	5.1	3.9	7.0	6.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.4	1.4	1.2	1.4	2.7	1.7	0.8	0.5	1.8	1.4
Total Max Queue	7.1	6.2	5.8	6.8	9.0	6.5	5.1	3.9	7.0	6.4
Speed	43.9	41.9	45.1	43.4	36.4	40.3	45.8	49.0	41.3	43.0

2030 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	754.8	768.0	763.6	656.4	778.0	693.2	799.6	675.2	2,891.2	5,888.8
Delay	45.6	45.0	45.0	46.0	45.4	45.7	46.2	46.3	45.5	45.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.6	45.0	45.0	46.0	45.4	45.7	46.2	46.3	45.5	45.6
Mean Queue	2.6	3.1	2.6	2.7	2.7	2.9	2.8	2.8	2.7	2.8
Max Queue	9.4	9.3	8.3	8.5	8.7	8.9	8.9	8.5	8.6	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	3.1	2.6	2.7	2.7	2.9	2.8	2.8	2.7	2.8
Total Max Queue	9.4	9.3	8.3	8.5	8.7	8.9	8.9	8.5	8.6	8.8
Speed	9.1	9.0	9.2	8.8	9.1	9.0	8.8	8.8	9.1	9.0

Arm Reference:	B
Name	South Bank Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	376.4	527.6	533.6	558.4	526.0	513.6	428.0	430.8	2,131.6	3,894.4
Delay	27.5	33.9	38.3	44.0	32.7	32.6	29.6	28.0	36.9	33.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.5	33.9	38.3	44.0	32.7	32.6	29.6	28.0	36.9	33.7
Mean Queue	2.4	4.0	5.2	5.7	4.2	3.7	2.9	2.5	4.7	3.9
Max Queue	14.5	16.8	17.7	17.4	17.4	16.7	14.6	15.3	17.3	16.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	4.0	5.2	5.7	4.2	3.7	2.9	2.5	4.7	3.9
Total Max Queue	14.5	16.8	17.7	17.4	17.4	16.7	14.6	15.3	17.3	16.4
Speed	41.6	33.3	30.1	28.1	33.3	33.6	38.1	38.7	31.3	34.2

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	888.4	762.0	890.8	797.2	890.0	815.6	886.8	801.2	3,393.6	6,732.0
Delay	24.9	24.6	24.7	24.8	25.5	24.0	26.4	24.5	24.7	24.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	24.6	24.7	24.8	25.5	24.0	26.4	24.5	24.7	24.9
Mean Queue	3.2	3.0	3.0	3.2	3.1	3.2	3.1	3.2	3.1	3.1
Max Queue	7.2	6.7	7.1	7.2	7.0	7.1	7.3	7.1	7.1	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.2	3.0	3.0	3.2	3.1	3.2	3.1	3.2	3.1	3.1
Total Max Queue	7.2	6.7	7.1	7.2	7.0	7.1	7.3	7.1	7.1	7.1
Speed	26.7	27.1	28.9	27.7	27.5	28.8	24.9	27.9	28.2	27.5

Arm Reference:	D
Name	South Bank Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	28.8	33.2	82.4	84.0	74.8	97.2	116.4	108.4	338.4	625.2
Delay	62.6	55.1	69.7	76.2	73.0	81.5	81.3	101.6	75.1	75.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.6	55.1	69.7	76.2	73.0	81.5	81.3	101.6	75.1	75.1
Mean Queue	0.2	0.2	0.8	0.9	0.8	1.0	1.4	2.0	0.9	0.9
Max Queue	2.9	2.5	4.4	4.7	4.0	5.3	6.0	6.1	4.6	4.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.8	0.9	0.8	1.0	1.4	2.0	0.9	0.9
Total Max Queue	2.9	2.5	4.4	4.7	4.0	5.3	6.0	6.1	4.6	4.5
Speed	47.9	47.7	47.5	43.3	47.0	43.7	40.8	36.8	45.4	44.5

2030 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	1,026.4	912.4	996.0	812.4	863.2	774.8	826.0	734.0	3,446.4	6,945.2
Delay	57.3	54.6	56.6	58.9	66.8	52.5	60.1	64.3	58.7	58.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	54.6	56.6	58.9	66.8	52.5	60.1	64.3	58.7	58.9
Mean Queue	4.8	4.5	4.6	4.5	4.5	3.8	4.2	4.2	4.3	4.4
Max Queue	11.9	11.5	12.0	11.1	10.9	10.8	10.4	10.5	11.2	11.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.8	4.5	4.6	4.5	4.5	3.8	4.2	4.2	4.3	4.4
Total Max Queue	11.9	11.5	12.0	11.1	10.9	10.8	10.4	10.5	11.2	11.1
Speed	8.1	8.6	8.2	8.3	7.9	8.4	8.0	8.0	8.2	8.2

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	428.4	420.4	471.6	430.0	493.2	431.6	404.0	478.8	1,826.4	3,558.0
Delay	27.2	28.9	28.0	28.9	34.9	31.3	32.8	50.6	30.8	32.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	28.9	28.0	28.9	34.9	31.3	32.8	50.6	30.8	32.6
Mean Queue	2.4	2.4	2.9	2.4	3.5	2.8	3.1	4.0	2.9	2.9
Max Queue	17.5	14.1	16.8	14.4	17.5	16.4	15.8	17.4	16.3	16.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	2.4	2.9	2.4	3.5	2.8	3.1	4.0	2.9	2.9
Total Max Queue	17.5	14.1	16.8	14.4	17.5	16.4	15.8	17.4	16.3	16.2
Speed	41.9	42.0	38.2	41.6	37.9	38.3	41.4	36.1	39.0	39.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	853.6	800.0	902.0	806.8	894.8	798.0	930.8	801.6	3,401.6	6,787.6
Delay	26.8	24.5	25.7	24.5	24.8	24.7	24.5	25.1	24.9	25.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	24.5	25.7	24.5	24.8	24.7	24.5	25.1	24.9	25.1
Mean Queue	3.3	3.2	3.1	3.3	3.0	3.3	3.1	3.3	3.2	3.2
Max Queue	7.6	7.1	7.1	7.3	7.0	7.3	7.2	7.2	7.2	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.3	3.2	3.1	3.3	3.0	3.3	3.1	3.3	3.2	3.2
Total Max Queue	7.6	7.1	7.1	7.3	7.0	7.3	7.2	7.2	7.2	7.2
Speed	26.9	28.5	28.3	28.4	28.6	29.0	29.2	27.8	28.6	28.4

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	164.0	139.2	139.2	144.4	147.6	130.4	145.6	129.6	561.6	1,140.0
Delay	123.4	113.4	100.4	126.0	126.0	149.5	168.9	181.9	125.5	135.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	123.4	113.4	100.4	126.0	126.0	149.5	168.9	181.9	125.5	135.0
Mean Queue	3.4	2.9	2.4	3.5	3.3	4.2	4.9	5.3	3.3	3.7
Max Queue	9.0	8.5	6.7	7.7	7.9	8.0	8.7	8.5	7.6	8.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.4	2.9	2.4	3.5	3.3	4.2	4.9	5.3	3.3	3.7
Total Max Queue	9.0	8.5	6.7	7.7	7.9	8.0	8.7	8.5	7.6	8.1
Speed	26.7	29.5	34.0	25.5	26.4	19.8	13.9	11.5	26.4	23.8

2030 Do Something

J-16 A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	A171 Cargo Fleet Lane (North)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	974.8	746.4	809.2	676.4	786.0	590.8	423.2	365.2	2,862.4	5,372.0
Delay	53.5	59.7	60.5	57.9	63.7	73.7	156.7	176.2	64.0	85.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.5	59.7	60.5	57.9	63.7	73.7	156.7	176.2	64.0	85.1
Mean Queue	4.2	4.3	3.8	3.8	4.0	4.5	6.4	6.0	4.0	4.6
Max Queue	11.0	10.4	9.7	9.1	10.3	9.8	10.1	9.4	9.7	9.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.2	4.3	3.8	3.8	4.0	4.5	6.4	6.0	4.0	4.6
Total Max Queue	11.0	10.4	9.7	9.1	10.3	9.8	10.1	9.4	9.7	9.9
Speed	8.0	7.7	7.8	7.8	7.5	7.2	4.2	4.0	7.6	6.9

Arm Reference:	B
Name	South Bank Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	590.0	610.8	581.2	644.8	552.8	627.6	397.6	492.4	2,406.4	4,497.2
Delay	46.5	56.7	67.0	82.8	93.7	107.3	207.7	158.9	87.7	100.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	56.7	67.0	82.8	93.7	107.3	207.7	158.9	87.7	100.9
Mean Queue	7.1	7.2	10.2	11.3	12.3	12.0	15.0	13.2	11.4	11.1
Max Queue	19.4	21.1	19.4	21.0	22.0	22.4	23.4	23.7	21.2	21.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.1	7.2	10.2	11.3	12.3	12.0	15.0	13.2	11.4	11.1
Total Max Queue	19.4	21.1	19.4	21.0	22.0	22.4	23.4	23.7	21.2	21.5
Speed	27.6	27.4	23.2	21.4	21.0	21.0	19.0	21.0	21.6	22.6

Arm Reference:	C
Name	A171 Cargo Fleet Lane (South)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	817.6	713.6	823.6	764.0	877.2	735.6	784.8	579.2	3,200.4	6,095.6
Delay	31.5	29.7	29.8	27.5	27.2	28.1	24.9	24.2	28.1	27.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	29.7	29.8	27.5	27.2	28.1	24.9	24.2	28.1	27.9
Mean Queue	3.8	3.5	3.3	3.5	3.2	3.4	2.6	2.3	3.4	3.2
Max Queue	7.4	7.1	7.0	7.3	7.2	7.1	7.2	6.7	7.2	7.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	3.5	3.3	3.5	3.2	3.4	2.6	2.3	3.4	3.2
Total Max Queue	7.4	7.1	7.0	7.3	7.2	7.1	7.2	6.7	7.2	7.1
Speed	24.6	25.6	25.8	28.2	28.4	28.0	30.1	28.6	27.6	27.4

Arm Reference:	D
Name	South Bank Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	151.6	168.0	138.8	162.4	204.0	122.0	86.8	75.2	627.2	1,108.8
Delay	54.7	61.0	62.1	58.6	65.7	68.3	89.4	95.3	63.7	68.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.7	61.0	62.1	58.6	65.7	68.3	89.4	95.3	63.7	68.8
Mean Queue	1.1	1.5	1.3	1.1	2.2	1.3	1.0	0.9	1.5	1.3
Max Queue	6.9	7.0	5.8	7.0	8.2	6.3	4.6	4.0	6.8	6.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	1.1	1.5	1.3	1.1	2.2	1.3	1.0	0.9	1.5	1.3
Total Max Queue	6.9	7.0	5.8	7.0	8.2	6.3	4.6	4.0	6.8	6.3
Speed	46.1	41.9	42.2	45.0	37.4	41.4	46.6	47.1	41.5	43.2

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-17: B1380 Ladgate Lane / Ormesby Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	176.0	168.0	218.8	158.0	140.8	174.0	169.6	150.4	691.6	1,355.6
Delay	3.4	3.0	3.1	2.7	3.4	3.5	2.3	3.0	3.2	3.1
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	3.5	3.0	3.2	2.8	3.4	3.6	2.4	3.1	3.3	3.1
Mean Queue	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Max Queue	4.6	3.4	4.4	2.8	3.8	4.5	2.9	3.3	3.9	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.6	0.9	0.5	0.5	0.6	0.4	0.4	0.6	0.6
Total Mean Queue	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Total Max Queue	5.3	4.0	5.3	3.3	4.3	5.1	3.3	3.7	4.5	4.3
Speed	22.8	21.3	20.9	21.2	21.2	22.8	22.5	21.8	21.5	21.8

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,059.2	1,098.4	1,065.6	1,129.2	1,051.2	962.4	930.4	943.2	4,208.4	8,239.6
Delay	0.6	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.5	0.5
Mean Queue	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Max Queue	3.4	3.3	3.4	3.0	2.8	2.8	2.7	2.6	3.0	3.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
Total Max Queue	3.4	3.3	3.4	3.0	2.8	2.8	2.7	2.6	3.0	3.0
Speed	45.4	45.3	44.8	45.4	46.4	46.0	47.4	46.3	45.6	45.8

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	666.0	737.2	827.2	724.0	666.4	718.0	710.4	739.6	2,935.6	5,788.8
Delay	0.9	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.1	51.8	51.3	51.4	51.3	51.3	51.2	51.4	51.3	51.4

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-17: B1380 Ladgate Lane / Ormesby Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	136.4	142.0	136.0	140.4	124.8	140.0	125.6	116.4	541.2	1,061.6
Delay	2.1	2.7	2.1	2.3	2.1	2.3	2.5	2.5	2.2	2.3
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	2.2	2.7	2.2	2.4	2.2	2.4	2.5	2.6	2.3	2.4
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	4.2	4.1	3.4	3.4	3.0	3.7	3.2	3.6	3.4	3.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.5	0.7	0.6	0.8	0.3	0.7	0.6	0.7	0.6	0.6
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	4.7	4.8	4.0	4.2	3.3	4.4	3.8	4.3	4.0	4.2
Speed	24.0	23.3	25.0	24.8	24.4	22.9	23.3	24.7	24.3	24.1

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	658.4	650.4	727.6	791.2	714.0	695.6	725.6	667.6	2,928.4	5,630.4
Delay	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.5	0.5	0.4	0.4	0.5	0.5	0.4	0.4	0.5	0.5
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	2.7	2.2	2.4	2.2	2.8	2.9	2.4	2.1	2.6	2.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	2.7	2.2	2.4	2.2	2.8	2.9	2.4	2.1	2.6	2.5
Speed	47.3	47.0	47.5	47.2	46.7	46.4	47.4	48.0	46.9	47.1

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	690.4	719.2	696.0	628.8	712.4	689.2	697.6	684.8	2,726.4	5,518.4
Delay	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.2	1.0	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.2	1.0	1.1
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	51.9	51.6	51.8	51.5	51.6	51.6	51.8	51.2	51.6	51.6

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-17: B1380 Ladgate Lane / Ormesby Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	156.8	213.6	159.6	190.8	172.8	154.0	138.8	146.0	677.2	1,332.4
Delay	3.0	3.2	3.4	3.9	2.7	3.0	3.7	2.9	3.2	3.2
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	3.1	3.3	3.4	3.9	2.8	3.1	3.7	3.0	3.3	3.3
Mean Queue	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.7	4.0	3.5	4.8	3.8	3.4	3.4	3.7	3.9	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.8	0.6	0.6	0.9	0.7	0.6	0.5	0.7	0.7
Total Mean Queue	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	4.5	4.8	4.1	5.4	4.7	4.1	4.0	4.2	4.6	4.5
Speed	22.3	20.1	21.5	21.0	22.1	21.3	21.9	22.2	21.5	21.6

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	897.2	811.2	851.6	847.6	835.2	821.2	850.0	800.4	3,355.6	6,714.4
Delay	0.7	1.1	1.0	0.7	0.8	0.8	0.7	0.7	0.9	0.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	1.1	1.0	0.7	0.8	0.8	0.7	0.7	0.9	0.8
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.5	3.7	3.3	3.2	3.5	3.2	3.2	3.2	3.3	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.5	3.7	3.3	3.2	3.5	3.2	3.2	3.2	3.3	3.3
Speed	44.6	41.8	41.7	44.6	43.5	43.8	44.5	45.0	43.4	43.7

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	814.8	992.8	889.6	885.2	878.0	957.2	838.8	867.2	3,610.0	7,123.6
Delay	1.2	1.4	1.4	1.2	1.3	1.4	1.2	1.3	1.3	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	1.4	1.4	1.2	1.3	1.4	1.2	1.3	1.3	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	51.0	50.4	50.7	51.2	50.8	50.6	51.1	51.0	50.8	50.8

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	116.4	106.8	161.6	114.0	100.4	102.8	97.6	95.2	478.8	894.8
Delay	2.0	3.9	5.2	4.4	3.7	4.5	2.9	2.8	4.5	3.8
Delay Virtual Queue	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Total Delay	2.1	4.0	5.3	4.5	3.8	4.5	3.0	2.8	4.5	3.8
Mean Queue	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1
Max Queue	3.9	3.6	5.0	3.3	3.1	3.9	3.0	3.5	3.8	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.7	0.8	0.2	0.5	0.5	0.6	0.2	0.5	0.5
Total Mean Queue	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1
Total Max Queue	4.7	4.3	5.8	3.5	3.6	4.4	3.6	3.7	4.3	4.2
Speed	23.4	21.7	19.6	19.0	20.9	21.3	21.8	22.6	20.2	21.2

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,445.2	1,399.2	1,457.6	1,479.6	1,514.0	1,462.4	1,425.6	1,520.8	5,913.6	11,704.4
Delay	0.6	0.9	1.0	0.9	0.9	1.0	0.8	0.9	0.9	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.9	1.0	0.9	0.9	1.0	0.8	0.9	0.9	0.9
Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Max Queue	3.9	3.9	4.0	4.0	3.9	3.9	4.0	4.0	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Max Queue	3.9	3.9	4.0	4.0	3.9	3.9	4.0	4.0	4.0	4.0
Speed	44.3	42.4	42.5	42.0	42.5	42.4	43.3	42.9	42.4	42.8

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	924.4	1,012.4	1,146.8	1,056.8	997.6	1,054.4	980.8	995.6	4,255.6	8,168.8
Delay	0.6	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.9	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.9	1.0	1.0	0.9	0.9	0.9	0.8	0.9	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.9	52.3	51.8	51.7	52.1	52.0	52.1	52.3	51.9	52.1

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-16 J-16: A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	154.4	166.4	151.2	168.0	140.4	146.8	153.2	140.4	606.4	1,220.8
Delay	2.6	2.3	2.8	4.1	3.9	2.7	2.9	3.3	3.4	3.1
Delay Virtual Queue	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	2.7	2.3	2.8	4.2	4.0	2.8	3.0	3.4	3.4	3.2
Mean Queue	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
Max Queue	4.5	3.1	3.8	5.3	4.4	3.4	3.8	3.4	4.2	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.7	0.6	0.7	0.7	0.8	0.8	0.6	0.7	0.7
Total Mean Queue	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1
Total Max Queue	5.3	3.8	4.4	6.0	5.1	4.2	4.6	4.0	4.9	4.7
Speed	22.4	22.3	22.1	22.2	21.9	21.8	22.0	21.4	22.0	22.0

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	817.2	823.2	817.2	880.4	842.8	830.8	848.0	842.4	3,371.2	6,702.0
Delay	0.7	0.7	0.6	0.5	0.7	0.6	0.5	0.6	0.6	0.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.7	0.6	0.5	0.7	0.6	0.5	0.6	0.6	0.6
Mean Queue	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1
Max Queue	3.5	3.1	3.2	2.8	2.9	3.2	2.9	2.9	3.0	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.1
Total Max Queue	3.5	3.1	3.2	2.8	2.9	3.2	2.9	2.9	3.0	3.1
Speed	44.9	44.8	46.0	45.6	45.0	45.7	46.1	45.5	45.6	45.5

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	796.4	814.0	837.2	728.4	833.6	820.0	780.4	824.0	3,219.2	6,434.0
Delay	1.2	1.2	1.4	1.3	1.4	1.3	1.2	1.5	1.3	1.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.2	1.2	1.4	1.3	1.4	1.3	1.2	1.5	1.3	1.3
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Speed	51.1	51.1	50.7	51.2	50.4	51.0	51.0	50.5	50.8	50.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	184.0	249.2	190.8	208.0	214.8	198.0	206.8	210.0	811.6	1,661.6
Delay	4.5	5.2	4.4	4.5	3.6	4.6	4.1	4.4	4.3	4.4
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	4.6	5.2	4.5	4.6	3.7	4.6	4.2	4.4	4.4	4.5
Mean Queue	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2
Max Queue	5.1	4.8	4.0	4.3	3.7	3.9	4.2	4.1	4.0	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.1	0.4	0.7	0.8	0.8	0.7	0.6	0.7	0.7
Total Mean Queue	0.2	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2
Total Max Queue	6.0	5.9	4.4	5.0	4.5	4.7	4.9	4.7	4.7	5.0
Speed	19.1	18.6	18.8	18.8	18.8	18.7	17.7	18.9	18.8	18.7

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,028.0	972.0	981.6	1,028.4	994.8	980.4	1,023.6	1,010.0	3,985.2	8,018.8
Delay	1.0	1.2	1.2	1.0	1.1	1.2	0.9	1.0	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.2	1.2	1.0	1.1	1.2	0.9	1.0	1.1	1.1
Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
Max Queue	4.0	3.9	3.8	4.1	3.8	4.1	3.5	3.8	4.0	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2
Total Max Queue	4.0	3.9	3.8	4.1	3.8	4.1	3.5	3.8	4.0	3.9
Speed	42.4	41.8	40.6	42.6	42.0	41.8	42.9	42.3	41.8	42.0

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	952.0	1,129.6	1,066.8	996.8	1,054.8	1,044.0	944.4	988.4	4,162.4	8,176.8
Delay	1.5	1.7	1.8	1.5	1.8	1.8	1.5	1.6	1.7	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	1.7	1.8	1.5	1.8	1.8	1.5	1.6	1.7	1.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.1
Speed	50.5	49.7	49.6	50.4	49.6	49.6	50.3	50.0	49.8	50.0

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	110.4	106.4	136.8	97.6	88.4	107.6	93.2	90.4	430.4	830.8
Delay	2.9	3.1	3.7	2.6	3.4	2.9	3.1	2.3	3.1	3.0
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	3.0	3.2	3.7	2.7	3.4	3.0	3.1	2.4	3.2	3.1
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	4.5	3.8	4.0	2.9	3.2	3.3	3.6	2.8	3.4	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.6	0.8	0.4	0.6	0.9	0.5	0.6	0.7	0.6
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	5.1	4.4	4.8	3.3	3.8	4.2	4.1	3.4	4.0	4.1
Speed	22.3	22.4	19.9	20.7	21.9	20.6	21.1	22.3	20.8	21.3

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,506.0	1,511.6	1,481.6	1,570.0	1,594.8	1,504.8	1,515.6	1,522.8	6,151.2	12,207.2
Delay	1.0	1.0	1.1	1.0	0.9	1.0	0.9	1.0	1.0	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.0	1.0	1.1	1.0	0.9	1.0	0.9	1.0	1.0	1.0
Mean Queue	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Max Queue	4.1	4.0	3.9	4.1	4.0	4.1	4.2	4.0	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Total Max Queue	4.1	4.0	3.9	4.1	4.0	4.1	4.2	4.0	4.0	4.0
Speed	42.8	42.4	42.2	42.4	42.8	42.6	42.6	42.3	42.5	42.5

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,030.8	1,120.0	1,246.8	1,144.0	1,072.0	1,190.8	1,049.6	1,071.6	4,653.6	8,925.6
Delay	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.6	52.2	51.8	51.9	52.2	52.1	52.0	52.1	52.0	52.1

2030 Do Minimum

J-16: A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name:	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	160.0	172.8	153.2	173.2	156.8	149.6	168.0	164.0	632.8	1,297.6
Delay	3.0	2.5	2.6	3.2	3.2	2.6	3.0	3.6	2.9	3.0
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay	3.1	2.6	2.7	3.2	3.2	2.7	3.1	3.7	3.0	3.0
Mean Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1
Max Queue	4.4	3.6	3.5	3.8	3.5	3.3	3.5	4.5	3.5	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.8	0.6	1.0	0.7	0.6	0.7	0.8	0.7	0.7
Total Mean Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1
Total Max Queue	5.2	4.4	4.1	4.8	4.2	3.9	4.2	5.3	4.3	4.5
Speed	22.0	21.3	21.9	21.8	20.2	21.9	21.2	20.7	21.5	21.4

Arm Reference:	B
Name:	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	843.2	803.6	848.4	895.2	869.6	850.8	886.8	864.0	3,464.0	6,861.6
Delay	0.6	0.6	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.6	0.8	0.7	0.7	0.8	0.7	0.7	0.8	0.7
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.3	3.5	3.5	3.2	3.2	3.4	3.2	3.3	3.3	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.3	3.5	3.5	3.2	3.2	3.4	3.2	3.3	3.3	3.3
Speed	45.2	45.6	44.2	44.4	44.6	44.0	44.6	45.0	44.3	44.7

Arm Reference:	C
Name:	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	855.2	864.0	862.4	798.4	884.4	849.6	862.4	884.4	3,394.8	6,860.8
Delay	1.5	1.4	1.3	1.3	1.5	1.3	1.4	1.5	1.4	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	1.4	1.3	1.3	1.5	1.3	1.4	1.5	1.4	1.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Speed	50.3	50.7	50.7	50.7	50.1	50.7	50.6	50.3	50.6	50.5

2030 Do Minimum

J-16: A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	178.0	218.0	182.0	209.2	197.6	187.6	198.4	188.4	776.4	1,559.2
Delay	11.6	19.3	16.7	18.7	13.5	25.4	16.4	16.5	18.6	17.4
Delay Virtual Queue	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Total Delay	11.7	19.3	16.8	18.7	13.6	25.4	16.5	16.5	18.6	17.5
Mean Queue	0.5	1.0	0.9	0.8	0.8	1.0	0.8	0.8	0.9	0.8
Max Queue	5.8	4.8	5.0	5.8	5.1	4.8	5.9	5.0	5.2	5.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.9	1.1	0.6	0.9	0.7	0.8	0.9	0.5	0.8	0.8
Total Mean Queue	0.5	1.0	0.9	0.8	0.8	1.0	0.8	0.8	0.9	0.8
Total Max Queue	6.7	5.9	5.6	6.7	5.8	5.6	6.8	5.5	5.9	6.1
Speed	17.2	17.8	16.3	17.4	17.5	18.0	17.9	19.8	17.3	17.7

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,046.8	954.0	942.4	978.4	976.8	922.0	984.4	970.8	3,819.6	7,775.6
Delay	1.7	2.6	2.8	2.6	2.0	3.1	2.0	2.1	2.6	2.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	2.6	2.8	2.6	2.0	3.1	2.0	2.1	2.6	2.4
Mean Queue	0.4	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.5
Max Queue	4.1	3.8	3.9	4.0	3.7	3.9	4.1	3.9	3.9	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.5
Total Max Queue	4.1	3.8	3.9	4.0	3.7	3.9	4.1	3.9	3.9	3.9
Speed	42.0	40.5	39.5	41.3	41.2	40.9	42.1	41.8	40.7	41.1

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	992.0	1,082.0	1,072.4	992.0	1,053.6	1,106.4	1,012.8	994.8	4,224.4	8,306.0
Delay	7.4	12.9	12.2	15.0	9.5	14.7	11.8	9.9	12.8	11.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.4	12.9	12.2	15.0	9.5	14.7	11.8	9.9	12.8	11.8
Mean Queue	0.9	1.5	1.6	1.5	1.3	1.5	1.4	1.5	1.5	1.4
Max Queue	2.6	2.6	4.7	2.2	2.5	2.3	2.4	2.5	2.9	2.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.9	1.5	1.6	1.5	1.3	1.5	1.4	1.5	1.5	1.4
Total Max Queue	2.6	2.6	4.7	2.2	2.5	2.3	2.4	2.5	2.9	2.7
Speed	48.7	46.6	46.1	47.4	46.8	47.1	47.2	47.8	46.8	47.2

Land at South Tees Development Corporation
Junction Statistics

2025 Do Something

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	114.4	103.6	149.6	104.8	103.6	123.6	100.4	96.8	481.6	896.8
Delay	2.2	4.1	4.6	3.8	3.7	4.2	3.6	2.3	4.1	3.6
Delay Virtual Queue	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay	2.2	4.2	4.6	3.8	3.7	4.3	3.7	2.3	4.1	3.7
Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Max Queue	3.3	3.6	3.5	3.6	3.3	4.6	3.1	3.1	3.8	3.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.3	0.8	0.4	0.2	0.6	0.5	0.6	0.5	0.5
Total Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Total Max Queue	4.0	3.9	4.3	4.0	3.5	5.2	3.6	3.7	4.3	4.1
Speed	23.1	20.9	19.3	21.2	22.0	21.1	21.3	22.6	20.9	21.4

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,374.8	1,391.2	1,447.2	1,457.2	1,478.4	1,398.0	1,480.4	1,480.4	5,780.8	11,507.6
Delay	0.8	0.9	1.2	0.9	0.9	0.8	1.0	1.0	1.0	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	1.2	0.9	0.9	0.8	1.0	1.0	1.0	0.9
Mean Queue	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Max Queue	4.1	4.0	4.1	3.9	4.0	4.0	3.9	4.0	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total Max Queue	4.1	4.0	4.1	3.9	4.0	4.0	3.9	4.0	4.0	4.0
Speed	43.8	42.5	41.9	42.5	42.7	43.6	41.8	42.7	42.7	42.7

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	944.0	1,074.4	1,176.8	1,072.4	1,003.2	1,039.6	975.6	988.8	4,292.0	8,274.8
Delay	0.7	0.9	1.0	1.0	0.8	0.9	0.9	0.7	0.9	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.9	1.0	1.0	0.8	0.9	0.9	0.7	0.9	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.5	52.1	51.5	51.6	52.2	52.3	51.9	52.6	51.9	52.1

2025 Do Something

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	166.8	160.8	149.2	169.6	148.4	148.8	171.2	152.4	616.0	1,267.2
Delay	2.2	2.8	2.5	3.2	2.9	2.9	2.6	3.6	2.9	2.8
Delay Virtual Queue	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay	2.2	2.8	2.5	3.3	3.0	2.9	2.7	3.7	2.9	2.9
Mean Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1
Max Queue	4.1	3.8	3.7	4.6	3.4	3.3	3.7	4.2	3.8	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.8	0.6	0.9	0.4	0.7	0.9	0.9	0.7	0.7
Total Mean Queue	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1
Total Max Queue	4.7	4.6	4.3	5.5	3.8	4.0	4.6	5.1	4.4	4.6
Speed	22.6	22.4	22.4	21.1	21.5	21.9	21.5	22.7	21.7	22.0

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	832.4	781.2	830.4	881.6	853.2	834.8	845.6	827.2	3,400.0	6,686.4
Delay	0.6	0.7	0.5	0.5	0.6	0.7	0.6	0.6	0.6	0.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.6	0.7	0.5	0.5	0.6	0.7	0.6	0.6	0.6	0.6
Mean Queue	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.3	3.1	3.0	3.0	2.9	3.2	2.9	3.3	3.0	3.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.3	3.1	3.0	3.0	2.9	3.2	2.9	3.3	3.0	3.1
Speed	44.8	44.7	46.2	45.8	45.2	45.1	45.1	45.4	45.6	45.3

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	817.6	851.6	854.4	754.4	790.4	812.8	842.4	794.4	3,212.0	6,518.0
Delay	1.3	1.3	1.4	1.4	1.3	1.2	1.5	1.4	1.3	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.3	1.3	1.4	1.4	1.3	1.2	1.5	1.4	1.3	1.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Speed	50.9	50.9	50.9	50.6	50.7	51.1	50.6	50.6	50.8	50.8

2025 Do Something

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	199.2	254.0	201.2	219.2	193.2	195.6	178.8	178.0	809.2	1,619.2
Delay	5.6	4.8	4.9	3.1	5.3	3.8	3.8	6.4	4.3	4.7
Delay Virtual Queue	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1
Total Delay	5.6	4.8	4.9	3.2	5.3	3.9	3.9	6.4	4.3	4.7
Mean Queue	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.5	0.2	0.3
Max Queue	5.8	5.0	4.3	4.2	4.4	3.2	3.8	4.1	4.0	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.5	1.0	0.5	0.9	0.8	0.7	0.4	0.8	0.7	0.7
Total Mean Queue	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.5	0.2	0.3
Total Max Queue	6.3	6.0	4.8	5.1	5.2	3.9	4.2	4.9	4.8	5.0
Speed	20.4	17.7	17.4	20.0	18.9	18.0	19.4	18.5	18.6	18.8

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	989.2	979.2	947.2	1,006.8	1,017.2	972.8	984.4	968.8	3,944.0	7,865.6
Delay	0.9	1.0	1.2	0.7	1.2	1.1	1.1	1.2	1.1	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.9	1.0	1.2	0.7	1.2	1.1	1.1	1.2	1.1	1.1
Mean Queue	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.5	0.2	0.2
Max Queue	4.0	4.0	3.9	3.1	3.8	3.7	3.6	3.8	3.6	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.5	0.2	0.2
Total Max Queue	4.0	4.0	3.9	3.1	3.8	3.7	3.6	3.8	3.6	3.7
Speed	43.3	43.1	40.7	44.0	41.3	42.4	42.1	42.1	42.1	42.3

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	953.6	1,082.4	1,087.2	936.8	995.2	1,090.8	1,003.6	1,012.0	4,110.0	8,161.6
Delay	1.5	1.8	1.8	1.3	1.7	1.7	1.5	2.9	1.6	1.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	1.8	1.8	1.3	1.7	1.7	1.5	2.9	1.6	1.8
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Max Queue	0.0	0.2	0.3	0.0	0.4	0.1	0.3	2.8	0.2	0.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Max Queue	0.0	0.2	0.3	0.0	0.4	0.1	0.3	2.8	0.2	0.5
Speed	50.4	49.6	49.5	50.8	49.9	49.8	50.2	48.7	50.0	49.9

2030 Do Something

J-16: A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name:	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	121.6	106.0	147.2	107.6	76.4	128.8	105.6	95.2	460.0	888.4
Delay	2.4	3.5	4.0	3.4	2.3	4.4	3.3	3.2	3.5	3.3
Delay Virtual Queue	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Total Delay	2.5	3.6	4.0	3.5	2.3	4.4	3.4	3.2	3.6	3.4
Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Max Queue	3.3	4.1	3.8	3.5	2.6	4.9	3.8	3.3	3.7	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.5	0.8	0.6	0.4	0.7	0.6	0.5	0.6	0.6
Total Mean Queue	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Max Queue	3.9	4.6	4.6	4.1	3.0	5.6	4.4	3.8	4.3	4.3
Speed	21.7	22.5	18.3	20.2	21.5	21.8	21.6	21.1	20.4	21.0

Arm Reference:	B
Name:	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,498.4	1,492.0	1,462.8	1,570.4	1,598.4	1,528.8	1,501.6	1,540.0	6,160.4	12,192.4
Delay	0.8	0.9	1.4	1.0	1.0	0.9	1.0	1.0	1.1	1.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	1.4	1.0	1.0	0.9	1.0	1.0	1.1	1.0
Mean Queue	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2
Max Queue	4.2	4.0	4.1	3.9	3.9	3.9	4.1	4.0	4.0	4.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2
Total Max Queue	4.2	4.0	4.1	3.9	3.9	3.9	4.1	4.0	4.0	4.0
Speed	43.7	43.2	41.0	42.3	42.1	42.9	42.7	42.7	42.1	42.5

Arm Reference:	C
Name:	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	1,027.6	1,098.4	1,285.2	1,188.8	1,141.6	1,161.6	1,076.8	1,132.4	4,777.2	9,112.4
Delay	0.8	0.9	1.0	1.1	0.9	1.0	0.9	0.9	1.0	0.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.8	0.9	1.0	1.1	0.9	1.0	0.9	0.9	1.0	0.9
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	52.3	52.1	51.6	51.5	52.0	51.7	52.0	51.9	51.7	51.9

2030 Do Something

J-16: A171 Cargo Fleet Lane / South Bank Road

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	168.4	177.2	158.8	166.0	164.8	154.0	155.6	155.6	643.6	1,300.4
Delay	3.4	3.2	3.0	2.7	4.0	2.9	3.8	3.2	3.2	3.3
Delay Virtual Queue	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Total Delay	3.4	3.3	3.1	2.8	4.1	2.9	3.8	3.2	3.2	3.3
Mean Queue	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2
Max Queue	4.6	4.6	3.7	3.0	4.4	3.8	4.0	3.5	3.7	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	1.0	0.7	0.6	0.6	0.3	0.8	0.5	0.6	0.7
Total Mean Queue	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2
Total Max Queue	5.4	5.6	4.4	3.6	5.0	4.1	4.8	4.0	4.3	4.6
Speed	20.8	20.7	21.2	21.8	20.6	22.4	21.7	21.3	21.5	21.3

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	873.6	836.8	850.8	922.8	895.2	860.0	900.4	844.4	3,528.8	6,984.0
Delay	0.7	0.9	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.7	0.9	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.7
Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Max Queue	3.4	3.4	3.3	3.6	3.2	2.9	3.1	3.1	3.3	3.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Max Queue	3.4	3.4	3.3	3.6	3.2	2.9	3.1	3.1	3.3	3.3
Speed	44.5	44.1	44.7	44.5	44.2	45.5	45.2	45.3	44.7	44.7

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	847.2	907.2	904.4	794.8	884.0	826.8	876.0	845.6	3,410.0	6,886.0
Delay	1.4	1.5	1.5	1.3	1.4	1.3	1.5	1.4	1.4	1.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.4	1.5	1.5	1.3	1.4	1.3	1.5	1.4	1.4	1.4
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Speed	50.6	50.4	50.3	51.0	50.5	50.8	50.5	50.6	50.7	50.6

2030 Do Something

J-16 **J-16: A171 Cargo Fleet Lane / South Bank Road**

Arm Reference:	A
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	181.2	237.2	194.0	208.0	192.4	196.8	190.8	212.8	791.2	1,613.2
Delay	4.7	5.9	5.4	5.0	4.3	4.5	4.0	4.7	4.8	4.8
Delay Virtual Queue	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
Total Delay	4.7	6.0	5.4	5.0	4.4	4.5	4.1	4.8	4.8	4.9
Mean Queue	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3
Max Queue	4.8	4.6	4.3	5.1	3.7	3.7	3.9	4.4	4.2	4.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.9	0.6	0.9	0.6	0.7	0.9	0.7	0.7	0.7
Total Mean Queue	0.2	0.4	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3
Total Max Queue	5.4	5.5	4.9	6.0	4.3	4.4	4.8	5.1	4.9	5.0
Speed	17.7	18.6	18.0	18.9	19.4	17.8	20.4	18.1	18.5	18.6

Arm Reference:	B
Name	B1380 Ladgate Lane (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	1,074.0	1,003.6	1,044.0	1,024.4	1,006.4	1,028.0	1,044.8	1,098.4	4,102.8	8,323.6
Delay	1.1	1.4	1.2	1.1	1.0	0.9	1.1	1.1	1.0	1.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.1	1.4	1.2	1.1	1.0	0.9	1.1	1.1	1.0	1.1
Mean Queue	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Max Queue	4.0	3.9	3.9	3.9	3.4	3.9	3.7	3.9	3.8	3.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2
Total Max Queue	4.0	3.9	3.9	3.9	3.4	3.9	3.7	3.9	3.8	3.8
Speed	42.0	40.1	40.8	42.0	42.3	43.4	41.4	41.7	42.1	41.8

Arm Reference:	C
Name	B1380 Ladgate Lane (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	974.8	1,120.4	1,080.0	991.6	1,062.0	1,121.6	1,026.0	1,050.4	4,255.2	8,426.8
Delay	1.5	1.8	1.8	1.5	1.6	1.8	1.7	1.8	1.7	1.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	1.8	1.8	1.5	1.6	1.8	1.7	1.8	1.7	1.7
Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Queue	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Max Queue	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Speed	50.3	49.7	49.6	50.3	50.2	49.7	49.7	49.6	49.9	49.9

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	196.8	232.0	242.0	271.2	266.8	384.8	382.8	366.0	1,164.8	2,342.4
Delay	17.1	18.1	18.1	18.4	18.2	22.7	21.5	18.3	19.3	19.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	18.1	18.1	18.4	18.2	22.7	21.5	18.3	19.3	19.1
Mean Queue	0.4	0.6	0.6	0.6	0.7	1.2	1.1	0.9	0.8	0.8
Max Queue	3.6	3.7	3.8	3.7	3.5	5.8	5.4	4.5	4.2	4.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.6	0.6	0.6	0.7	1.2	1.1	0.9	0.8	0.8
Total Max Queue	3.6	3.7	3.8	3.7	3.5	5.8	5.4	4.5	4.2	4.2
Speed	25.8	23.5	24.9	25.4	24.5	20.1	20.6	23.6	23.7	23.6

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	352.4	427.2	452.4	450.4	477.2	482.0	398.4	333.6	1,862.0	3,373.6
Delay	50.7	57.6	57.5	60.5	67.6	82.7	65.7	50.4	67.1	62.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	57.6	57.5	60.5	67.6	82.7	65.7	50.5	67.1	62.2
Mean Queue	1.6	2.2	2.2	2.6	2.7	3.8	2.1	1.5	2.8	2.4
Max Queue	5.0	5.7	6.0	6.8	6.8	9.4	6.7	4.2	7.3	6.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.4	0.7	0.6	0.8	0.7	0.4	0.5	0.7	0.6
Total Mean Queue	1.6	2.2	2.2	2.6	2.7	3.8	2.1	1.5	2.8	2.4
Total Max Queue	5.6	6.1	6.7	7.4	7.6	10.1	7.1	4.7	8.0	7.0
Speed	7.5	6.0	6.3	5.3	4.9	4.8	6.3	7.9	5.3	6.1

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	958.8	1,014.4	970.0	1,016.8	985.6	934.4	900.0	976.0	3,906.8	7,756.0
Delay	72.5	67.6	70.2	67.6	54.7	44.7	61.0	53.7	59.3	61.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.5	67.6	70.2	67.6	54.7	44.7	61.0	53.7	59.3	61.3
Mean Queue	12.1	11.4	10.8	10.0	7.8	5.8	8.2	8.0	8.6	9.2
Max Queue	26.9	26.3	26.4	26.1	24.6	24.4	25.4	25.8	25.4	25.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	12.1	11.4	10.8	10.0	7.8	5.8	8.2	8.0	8.6	9.2
Total Max Queue	26.9	26.3	26.4	26.1	24.6	24.4	25.4	25.8	25.4	25.7
Speed	19.9	20.4	19.7	20.6	21.0	21.6	19.4	21.8	20.7	20.6

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	765.6	910.0	1,011.2	917.6	920.0	878.0	898.8	899.6	3,726.8	7,200.8
Delay	36.7	74.5	119.8	124.9	123.0	92.5	80.6	67.8	115.1	92.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	74.5	119.8	124.9	123.0	92.5	80.6	67.8	115.1	92.8
Mean Queue	2.4	8.1	13.9	13.7	12.3	8.9	7.8	5.7	12.2	9.4
Max Queue	8.5	20.3	28.2	28.0	26.1	19.0	18.1	16.6	25.3	21.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.4	8.1	13.9	13.7	12.3	8.9	7.8	5.7	12.2	9.4
Total Max Queue	8.5	20.3	28.2	28.0	26.1	19.0	18.1	16.6	25.3	21.1
Speed	19.9	23.5	24.7	24.4	24.6	22.5	22.1	22.2	24.1	23.1

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	552.0	548.4	512.0	524.4	435.2	522.8	490.4	523.2	1,994.4	4,108.4
Delay	31.6	30.5	29.3	27.5	27.6	28.7	28.1	34.3	28.3	29.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	30.5	29.3	27.5	27.6	28.7	28.1	34.3	28.3	29.5
Mean Queue	2.3	2.2	2.0	1.8	1.6	1.9	1.8	2.4	1.8	2.0
Max Queue	7.7	7.6	7.8	7.8	7.0	6.9	7.1	7.8	7.4	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.3	2.2	2.0	1.8	1.6	1.9	1.8	2.4	1.8	2.0
Total Max Queue	7.7	7.6	7.8	7.8	7.0	6.9	7.1	7.8	7.4	7.5
Speed	18.1	17.7	18.1	18.4	18.6	19.5	17.7	16.5	18.7	18.1

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	401.6	446.4	438.4	430.0	470.8	402.0	422.4	470.4	1,741.2	3,482.0
Delay	59.6	56.0	54.7	58.1	61.9	57.8	53.3	59.5	58.1	57.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	56.0	54.7	58.1	61.9	57.8	53.3	59.5	58.1	57.7
Mean Queue	2.1	2.2	2.1	2.2	2.5	2.0	2.0	2.4	2.2	2.2
Max Queue	6.0	6.2	6.2	5.9	6.8	5.8	5.7	6.7	6.2	6.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.3	0.7	0.8	0.6	0.5	0.6	0.9	0.7	0.7
Total Mean Queue	2.1	2.2	2.1	2.2	2.5	2.0	2.0	2.4	2.2	2.2
Total Max Queue	6.8	6.5	6.9	6.7	7.4	6.3	6.3	7.6	6.8	6.8
Speed	7.9	8.6	8.7	8.1	7.3	8.3	8.6	7.2	8.1	8.1

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	798.0	842.0	823.2	802.8	834.0	848.8	879.6	864.4	3,308.8	6,692.8
Delay	43.5	40.7	45.0	42.7	48.5	47.2	44.2	44.2	45.9	44.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	40.7	45.0	42.7	48.5	47.2	44.2	44.2	45.9	44.7
Mean Queue	5.6	5.4	5.9	5.3	6.3	6.5	6.1	6.0	6.0	5.9
Max Queue	25.5	24.4	25.3	25.0	25.4	25.2	25.2	25.4	25.2	25.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.6	5.4	5.9	5.3	6.3	6.5	6.1	6.0	6.0	5.9
Total Max Queue	25.5	24.4	25.3	25.0	25.4	25.2	25.2	25.4	25.2	25.2
Speed	25.4	25.7	24.2	24.9	25.1	25.1	25.4	25.3	24.8	25.1

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	990.4	890.4	960.4	926.8	930.8	936.4	872.8	880.4	3,754.4	7,388.4
Delay	68.9	56.1	51.0	65.6	74.2	57.5	51.6	51.2	62.1	59.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.9	56.1	51.0	65.6	74.2	57.5	51.6	51.2	62.1	59.8
Mean Queue	7.5	4.8	4.8	6.7	7.3	5.3	4.2	4.6	6.0	5.7
Max Queue	18.8	15.3	13.9	17.7	19.7	15.4	11.9	14.1	16.7	15.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	7.5	4.8	4.8	6.7	7.3	5.3	4.2	4.6	6.0	5.7
Total Max Queue	18.8	15.3	13.9	17.7	19.7	15.4	11.9	14.1	16.7	15.9
Speed	27.1	24.8	26.1	25.9	26.3	26.8	23.5	25.7	26.3	25.8

Land at South Tees Development Corporation
Junction Statistics

2019 Base

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	564.8	693.6	660.0	705.2	702.8	690.0	723.6	737.2	2,758.0	5,477.2
Delay	35.6	40.6	46.8	43.7	45.0	43.3	43.0	43.3	44.7	42.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	40.6	46.8	43.7	45.0	43.3	43.0	43.3	44.7	42.9
Mean Queue	2.7	3.7	4.3	4.0	4.3	4.0	4.1	4.3	4.1	4.0
Max Queue	8.5	8.7	8.9	8.3	8.5	8.5	9.0	8.7	8.6	8.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.7	3.7	4.3	4.0	4.3	4.0	4.1	4.3	4.1	4.0
Total Max Queue	8.5	8.7	8.9	8.3	8.5	8.5	9.0	8.7	8.6	8.6
Speed	18.1	21.7	18.0	20.4	20.6	19.7	21.6	21.1	19.7	20.1

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	410.8	458.8	452.0	438.8	473.6	438.4	456.8	416.0	1,802.8	3,545.2
Delay	59.8	65.8	64.6	65.0	65.6	73.6	64.0	63.9	67.2	65.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	65.8	64.6	65.0	65.7	73.6	64.0	63.9	67.2	65.5
Mean Queue	2.2	2.7	2.5	2.5	2.8	3.0	2.6	2.3	2.7	2.6
Max Queue	6.6	6.8	6.7	6.6	7.1	7.8	6.9	6.5	7.1	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.4	0.7	0.4	0.7	0.4	0.7	0.9	0.3	0.6	0.6
Total Mean Queue	2.2	2.7	2.5	2.5	2.8	3.0	2.6	2.3	2.7	2.6
Total Max Queue	7.0	7.5	7.1	7.3	7.5	8.5	7.8	6.8	7.6	7.5
Speed	7.2	6.0	6.0	6.3	6.8	6.8	6.4	6.4	6.5	6.5

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	806.4	798.0	796.0	798.8	831.6	718.4	783.6	729.2	3,144.8	6,262.0
Delay	76.3	78.7	70.1	77.7	80.0	58.9	57.7	53.3	71.7	69.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.3	78.7	70.1	77.7	80.0	58.9	57.7	53.3	71.7	69.4
Mean Queue	10.8	9.8	8.9	10.6	10.5	6.6	6.6	6.0	9.2	8.8
Max Queue	25.7	25.5	25.1	26.0	26.2	24.4	24.0	23.4	25.4	25.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	10.8	9.8	8.9	10.6	10.5	6.6	6.6	6.0	9.2	8.8
Total Max Queue	25.7	25.5	25.1	26.0	26.2	24.4	24.0	23.4	25.4	25.1
Speed	22.2	21.5	22.2	21.7	21.8	22.0	22.0	22.5	21.9	22.0

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	963.6	915.6	894.0	842.8	884.8	1,013.6	952.4	896.0	3,635.2	7,362.8
Delay	96.4	162.9	149.9	168.1	168.4	192.0	192.6	151.4	169.6	161.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	162.9	149.9	168.1	168.4	192.0	192.6	151.4	169.6	161.2
Mean Queue	11.9	16.9	17.2	15.2	20.7	22.6	21.5	13.6	18.9	17.6
Max Queue	26.7	29.6	30.8	28.6	39.8	38.5	38.9	29.0	34.4	32.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.9	16.9	17.2	15.2	20.7	22.6	21.5	13.6	18.9	17.6
Total Max Queue	26.7	29.6	30.8	28.6	39.8	38.5	38.9	29.0	34.4	32.9
Speed	16.8	16.8	16.4	16.0	16.6	17.4	17.0	16.9	16.6	16.7

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	169.2	202.4	227.2	245.6	245.6	334.8	332.8	312.4	1,053.2	2,070.0
Delay	16.0	17.8	17.5	20.3	19.3	20.0	19.1	19.6	19.3	18.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	17.8	17.5	20.3	19.3	20.0	19.1	19.6	19.3	18.8
Mean Queue	0.4	0.5	0.5	0.7	0.6	0.9	0.8	0.8	0.7	0.7
Max Queue	2.8	3.0	3.2	3.9	3.8	4.7	4.5	3.9	3.9	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.5	0.7	0.6	0.9	0.8	0.8	0.7	0.7
Total Max Queue	2.8	3.0	3.2	3.9	3.8	4.7	4.5	3.9	3.9	3.7
Speed	26.6	23.9	25.2	22.5	22.6	22.2	23.2	22.8	23.1	23.6

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	418.4	422.4	526.4	523.2	555.6	540.4	450.4	430.0	2,145.6	3,866.8
Delay	56.6	62.2	61.4	66.3	80.6	70.4	62.4	63.0	69.7	65.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	62.2	61.5	66.3	80.6	70.4	62.4	63.0	69.7	65.9
Mean Queue	2.1	2.4	2.8	3.2	3.9	3.4	2.4	2.3	3.3	2.9
Max Queue	6.2	6.7	7.6	7.9	8.9	8.3	6.4	6.0	8.2	7.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.8	0.7	0.9	0.7	0.8	0.8	0.6	0.5	0.8	0.7
Total Mean Queue	2.1	2.4	2.8	3.2	3.9	3.4	2.4	2.3	3.3	2.9
Total Max Queue	7.0	7.4	8.5	8.6	9.7	9.1	7.0	6.5	9.0	8.1
Speed	6.2	5.9	5.6	5.0	4.7	4.9	5.9	5.8	5.1	5.5

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	987.6	1,003.2	950.4	1,020.0	989.6	1,027.6	1,037.2	1,025.2	3,987.6	8,040.8
Delay	68.8	72.2	77.0	75.3	73.7	74.2	64.3	66.8	75.1	71.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.8	72.2	77.0	75.3	73.7	74.2	64.3	66.8	75.1	71.9
Mean Queue	11.6	11.5	12.3	12.3	12.1	12.5	10.8	11.2	12.3	11.9
Max Queue	27.2	26.6	27.0	26.3	26.4	26.4	26.5	26.8	26.5	26.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.6	11.5	12.3	12.3	12.1	12.5	10.8	11.2	12.3	11.9
Total Max Queue	27.2	26.6	27.0	26.3	26.4	26.4	26.5	26.8	26.5	26.6
Speed	19.3	19.0	19.1	19.3	19.3	20.3	20.8	19.9	19.5	19.6

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	894.8	982.0	1,054.4	964.4	961.2	923.6	960.0	931.2	3,903.6	7,671.6
Delay	44.4	71.6	107.0	90.9	102.1	93.5	104.9	69.7	98.4	86.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	71.6	107.0	90.9	102.1	93.5	104.9	69.7	98.4	86.9
Mean Queue	3.8	8.1	12.5	9.9	10.7	9.8	10.9	6.2	10.7	9.2
Max Queue	13.6	21.5	26.8	21.2	24.2	21.8	22.9	17.6	23.5	21.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.8	8.1	12.5	9.9	10.7	9.8	10.9	6.2	10.7	9.2
Total Max Queue	13.6	21.5	26.8	21.2	24.2	21.8	22.9	17.6	23.5	21.5
Speed	21.9	24.2	25.2	24.8	24.3	23.0	23.7	23.7	24.3	23.9

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	546.4	540.4	494.8	466.8	405.6	466.0	478.8	444.8	1,833.2	3,843.6
Delay	31.2	34.7	32.1	31.4	31.3	31.5	31.5	29.7	31.6	31.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	34.7	32.1	31.4	31.3	31.5	31.5	29.7	31.6	31.7
Mean Queue	2.2	2.4	2.1	2.0	1.6	1.9	2.0	1.8	1.9	2.0
Max Queue	7.4	7.7	6.9	6.6	6.1	7.2	6.9	6.6	6.7	6.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.2	2.4	2.1	2.0	1.6	1.9	2.0	1.8	1.9	2.0
Total Max Queue	7.4	7.7	6.9	6.6	6.1	7.2	6.9	6.6	6.7	6.9
Speed	17.8	16.6	17.1	17.6	16.2	17.6	17.6	18.2	17.1	17.3

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	479.2	513.6	520.0	500.0	546.8	488.4	491.6	490.4	2,055.2	4,030.0
Delay	60.6	58.8	61.8	55.5	67.0	58.9	57.3	60.3	60.8	60.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.6	58.8	61.8	55.5	67.0	58.9	57.3	60.3	60.8	60.1
Mean Queue	2.7	2.6	2.8	2.5	3.2	2.5	2.5	2.8	2.8	2.7
Max Queue	7.1	7.1	7.3	7.0	8.6	6.5	7.0	7.0	7.4	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.5	0.6	0.9	0.7	0.9	0.5	0.5	0.9	0.8	0.7
Total Mean Queue	2.7	2.6	2.8	2.5	3.2	2.5	2.5	2.8	2.8	2.7
Total Max Queue	7.6	7.7	8.2	7.7	9.5	7.0	7.5	7.9	8.1	7.9
Speed	8.0	7.7	7.5	8.4	7.4	7.7	7.6	7.9	7.8	7.8

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	798.0	869.6	816.0	831.6	876.0	870.0	911.6	848.4	3,393.6	6,821.2
Delay	48.3	49.0	52.1	51.9	50.4	55.9	55.8	53.6	52.6	52.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	49.0	52.1	51.9	50.4	55.9	55.8	53.6	52.6	52.2
Mean Queue	6.7	6.6	7.4	6.8	7.0	8.5	8.4	7.7	7.4	7.4
Max Queue	26.1	25.2	25.5	25.1	25.5	26.0	25.9	25.4	25.5	25.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	6.7	6.6	7.4	6.8	7.0	8.5	8.4	7.7	7.4	7.4
Total Max Queue	26.1	25.2	25.5	25.1	25.5	26.0	25.9	25.4	25.5	25.6
Speed	25.2	24.5	24.6	25.1	25.1	24.5	25.0	24.7	24.9	24.8

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	867.6	814.4	871.2	868.4	831.2	842.8	793.6	864.4	3,413.6	6,753.6
Delay	90.1	83.4	86.8	104.1	75.2	65.3	72.0	75.2	82.8	81.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	90.1	83.4	86.8	104.1	75.2	65.3	72.0	75.2	82.8	81.6
Mean Queue	8.9	7.4	8.6	9.5	6.5	5.8	6.0	6.8	7.6	7.5
Max Queue	19.8	18.2	20.1	21.4	16.5	16.4	14.9	16.5	18.6	18.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.9	7.4	8.6	9.5	6.5	5.8	6.0	6.8	7.6	7.5
Total Max Queue	19.8	18.2	20.1	21.4	16.5	16.4	14.9	16.5	18.6	18.0
Speed	26.6	26.0	25.9	24.7	26.0	26.3	24.7	25.2	25.7	25.7

Land at South Tees Development Corporation
Junction Statistics

2025 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	598.8	694.8	676.4	704.4	747.6	740.8	758.8	752.0	2,869.2	5,673.6
Delay	51.7	48.5	50.9	52.0	49.3	48.6	44.5	45.1	50.2	49.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	48.5	50.9	52.0	49.3	48.6	44.5	45.1	50.2	49.0
Mean Queue	4.3	4.4	4.6	4.9	5.0	4.9	4.5	4.6	4.8	4.7
Max Queue	10.1	9.7	9.1	9.2	9.9	9.1	9.1	9.4	9.3	9.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	4.3	4.4	4.6	4.9	5.0	4.9	4.5	4.6	4.8	4.7
Total Max Queue	10.1	9.7	9.1	9.2	9.9	9.1	9.1	9.4	9.3	9.4
Speed	15.6	19.5	17.6	17.7	19.7	19.8	23.8	21.5	18.7	19.3

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	511.6	544.0	545.2	514.4	525.2	527.6	569.6	503.2	2,112.4	4,240.8
Delay	68.3	69.9	84.3	70.6	68.8	74.8	72.8	66.9	74.6	72.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	69.9	84.3	70.6	68.8	74.8	72.8	66.9	74.6	72.3
Mean Queue	3.1	3.4	4.2	3.2	3.2	3.6	3.6	3.1	3.6	3.4
Max Queue	8.1	8.9	10.3	8.4	7.8	10.1	9.7	7.7	9.2	8.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.6	0.7	0.6	0.3	0.8	0.5	0.7	0.6	0.6
Total Mean Queue	3.1	3.4	4.2	3.2	3.2	3.6	3.6	3.1	3.6	3.4
Total Max Queue	8.7	9.5	11.0	9.0	8.1	10.9	10.2	8.4	9.8	9.5
Speed	6.2	6.0	6.0	6.2	6.3	6.0	5.9	6.6	6.1	6.2

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	843.6	834.8	844.8	849.2	839.2	788.0	822.8	800.0	3,321.2	6,622.4
Delay	76.2	79.4	82.8	80.1	84.1	70.6	84.1	80.6	79.4	79.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.2	79.4	82.8	80.1	84.1	70.6	84.1	80.6	79.4	79.7
Mean Queue	11.2	10.9	11.5	11.4	11.4	8.9	11.8	10.3	10.8	10.9
Max Queue	26.1	25.8	25.9	26.8	26.2	25.4	27.0	26.1	26.1	26.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.2	10.9	11.5	11.4	11.4	8.9	11.8	10.3	10.8	10.9
Total Max Queue	26.1	25.8	25.9	26.8	26.2	25.4	27.0	26.1	26.1	26.2
Speed	22.5	21.9	21.6	21.4	21.5	21.4	21.2	21.0	21.5	21.6

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	930.0	918.0	902.8	920.0	954.0	976.4	954.0	982.8	3,753.2	7,538.0
Delay	252.8	349.4	373.4	370.1	370.4	352.7	333.9	359.0	366.6	347.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	252.8	349.4	373.4	370.1	370.4	352.7	333.9	359.0	366.6	347.6
Mean Queue	34.9	46.4	47.9	46.1	46.6	46.4	44.0	46.0	46.8	45.0
Max Queue	67.8	75.0	75.4	75.1	75.0	75.8	74.9	74.9	75.3	74.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	34.9	46.4	47.9	46.1	46.6	46.4	44.0	46.0	46.8	45.0
Total Max Queue	67.8	75.0	75.4	75.1	75.0	75.8	74.9	74.9	75.3	74.4
Speed	17.2	17.2	16.7	17.0	17.5	17.7	18.2	17.5	17.2	17.4

2030 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	162.8	192.4	224.8	208.4	231.6	326.0	315.6	326.4	990.8	1,988.0
Delay	19.0	21.5	17.2	17.9	19.5	19.1	22.9	17.9	18.4	19.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	21.5	17.2	17.9	19.5	19.1	22.9	17.9	18.4	19.3
Mean Queue	0.4	0.6	0.5	0.5	0.6	0.8	0.9	0.8	0.6	0.6
Max Queue	2.5	3.0	3.5	3.2	3.7	3.9	5.0	4.8	3.6	3.7
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.6	0.5	0.5	0.6	0.8	0.9	0.8	0.6	0.6
Total Max Queue	2.5	3.0	3.5	3.2	3.7	3.9	5.0	4.8	3.6	3.7
Speed	23.6	22.0	26.1	23.9	22.6	22.9	20.2	23.7	23.9	23.2

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	418.4	458.0	548.4	549.6	562.8	525.2	485.2	422.4	2,186.0	3,970.0
Delay	55.9	60.2	76.0	82.7	100.7	83.6	95.3	60.5	85.7	77.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.9	60.2	76.0	82.7	100.7	83.6	95.3	60.5	85.8	77.9
Mean Queue	2.1	2.5	3.8	4.2	5.0	4.3	4.2	2.2	4.3	3.6
Max Queue	6.2	6.6	8.4	10.0	11.7	9.2	9.0	6.4	9.8	8.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.5	0.5	0.8	0.4	0.7	1.1	0.8	0.3	0.8	0.7
Total Mean Queue	2.1	2.5	3.8	4.2	5.0	4.3	4.2	2.2	4.3	3.6
Total Max Queue	6.7	7.1	9.2	10.4	12.4	10.3	9.8	6.7	10.6	9.2
Speed	6.3	5.9	4.5	3.9	3.8	4.9	4.7	6.5	4.3	5.0

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	994.8	1,002.4	1,014.0	1,000.0	1,016.4	1,034.4	1,054.0	1,034.0	4,064.8	8,150.0
Delay	74.9	75.1	76.3	75.2	77.1	74.7	69.1	73.4	75.8	74.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	75.1	76.3	75.2	77.1	74.7	69.1	73.4	75.8	74.6
Mean Queue	12.7	12.4	12.5	12.7	12.8	12.6	12.2	12.3	12.6	12.5
Max Queue	27.5	26.6	26.7	26.5	26.9	26.6	27.0	26.7	26.7	26.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	12.7	12.4	12.5	12.7	12.8	12.6	12.2	12.3	12.6	12.5
Total Max Queue	27.5	26.6	26.7	26.5	26.9	26.6	27.0	26.7	26.7	26.8
Speed	18.3	18.0	18.6	19.2	19.3	20.0	19.2	19.3	19.3	19.0

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	884.4	982.4	976.4	1,022.8	951.2	965.2	936.8	904.8	3,915.6	7,624.0
Delay	41.9	71.9	110.5	136.1	121.7	103.0	95.9	91.9	117.8	99.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.9	71.9	110.5	136.1	121.7	103.0	95.9	91.9	117.8	99.0
Mean Queue	3.5	7.9	14.0	15.0	13.5	11.0	9.7	8.7	13.4	10.7
Max Queue	12.8	19.2	29.0	29.0	28.3	23.8	21.3	20.1	27.5	23.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	7.9	14.0	15.0	13.5	11.0	9.7	8.7	13.4	10.7
Total Max Queue	12.8	19.2	29.0	29.0	28.3	23.8	21.3	20.1	27.5	23.4
Speed	22.1	24.1	24.9	24.9	24.9	24.1	23.6	23.4	24.7	24.1

2030 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	534.8	593.6	496.4	542.0	455.6	504.0	446.8	514.4	1,998.0	4,087.6
Delay	37.9	32.7	33.7	34.1	30.8	29.2	31.4	35.7	32.0	33.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	32.7	33.7	34.1	30.8	29.2	31.4	35.7	32.0	33.1
Mean Queue	2.6	2.6	2.3	2.4	1.8	1.9	1.9	2.5	2.1	2.2
Max Queue	7.9	7.8	7.5	7.8	7.1	7.4	7.2	7.6	7.5	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.6	2.6	2.3	2.4	1.8	1.9	1.9	2.5	2.1	2.2
Total Max Queue	7.9	7.8	7.5	7.8	7.1	7.4	7.2	7.6	7.5	7.5
Speed	17.6	18.7	17.8	16.8	17.8	18.0	17.9	16.9	17.6	17.7

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	502.4	535.6	518.4	524.0	537.6	480.8	472.8	556.4	2,060.8	4,128.0
Delay	70.9	62.7	73.3	84.5	63.8	57.8	64.6	71.1	69.9	68.7
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.9	62.7	73.3	84.5	63.8	57.8	64.6	71.1	69.9	68.7
Mean Queue	3.2	2.8	3.6	4.0	3.1	2.4	2.8	3.4	3.3	3.2
Max Queue	7.8	7.7	9.1	9.6	8.1	6.6	8.2	8.8	8.4	8.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.7	0.7	0.5	0.4	0.3	0.9	1.0	0.5	0.7
Total Mean Queue	3.2	2.8	3.6	4.0	3.1	2.4	2.8	3.4	3.3	3.2
Total Max Queue	8.8	8.4	9.8	10.1	8.5	6.9	9.1	9.8	8.8	8.9
Speed	7.4	7.6	7.1	7.6	7.2	7.7	7.9	7.0	7.4	7.5

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	884.4	906.4	917.6	962.0	918.8	928.4	988.4	932.8	3,726.8	7,438.8
Delay	57.0	60.7	60.1	62.2	62.8	68.3	58.8	64.0	63.3	61.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	60.7	60.1	62.2	62.8	68.3	58.8	64.0	63.3	61.9
Mean Queue	8.6	9.4	10.0	10.0	10.1	11.2	9.5	10.7	10.3	10.0
Max Queue	27.0	26.7	26.1	26.2	26.0	26.7	26.7	26.7	26.3	26.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.6	9.4	10.0	10.0	10.1	11.2	9.5	10.7	10.3	10.0
Total Max Queue	27.0	26.7	26.1	26.2	26.0	26.7	26.7	26.7	26.3	26.5
Speed	24.0	23.6	24.6	24.8	24.7	23.4	26.2	22.8	24.4	24.3

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	903.2	890.0	960.4	878.4	936.0	963.2	905.6	876.0	3,738.0	7,312.8
Delay	137.5	142.6	127.2	158.8	136.0	112.2	108.1	110.5	133.6	129.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	137.5	142.6	127.2	158.8	136.0	112.2	108.1	110.5	133.6	129.6
Mean Queue	15.7	14.1	14.2	16.9	13.8	11.4	11.3	11.1	14.1	13.6
Max Queue	28.6	26.2	27.4	29.4	27.6	22.9	22.6	22.0	26.8	25.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	15.7	14.1	14.2	16.9	13.8	11.4	11.3	11.1	14.1	13.6
Total Max Queue	28.6	26.2	27.4	29.4	27.6	22.9	22.6	22.0	26.8	25.9
Speed	26.4	26.3	27.1	26.3	26.7	28.1	25.8	26.2	27.0	26.6

Land at South Tees Development Corporation
Junction Statistics

2030 Do Minimum

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	586.8	674.0	654.0	657.2	714.8	660.8	664.0	705.6	2,686.8	5,317.2
Delay	38.4	39.4	53.1	53.5	48.7	57.5	49.8	52.1	53.2	49.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	39.4	53.1	53.5	48.7	57.5	49.8	52.1	53.2	49.5
Mean Queue	2.9	3.6	4.9	4.7	4.9	5.1	4.5	4.9	4.9	4.5
Max Queue	8.4	8.6	9.5	9.0	9.2	9.4	8.7	9.6	9.3	9.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	3.6	4.9	4.7	4.9	5.1	4.5	4.9	4.9	4.5
Total Max Queue	8.4	8.6	9.5	9.0	9.2	9.4	8.7	9.6	9.3	9.1
Speed	17.5	20.9	17.4	17.8	21.7	17.9	22.9	20.3	18.7	19.5

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	527.6	574.4	560.0	523.2	527.2	547.6	590.4	507.6	2,158.0	4,358.0
Delay	73.7	78.2	96.0	78.3	106.1	145.1	182.7	153.7	106.4	113.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	78.2	96.0	78.3	106.1	145.1	182.7	153.7	106.4	113.4
Mean Queue	3.5	4.1	5.0	4.0	7.1	11.1	14.3	15.3	6.8	7.9
Max Queue	9.5	10.1	11.5	10.3	15.5	19.5	22.4	21.8	14.2	15.0
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.2
Max Virtual Queue	0.7	0.8	0.9	0.7	0.5	0.8	0.6	6.5	0.7	1.4
Total Mean Queue	3.5	4.1	5.0	4.0	7.1	11.1	14.3	17.3	6.8	8.1
Total Max Queue	10.2	10.9	12.4	11.0	16.0	20.3	23.0	28.3	14.9	16.3
Speed	5.6	5.8	5.2	6.2	5.4	5.0	5.5	5.5	5.5	5.5

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	835.2	827.6	851.6	794.8	810.8	812.4	763.6	804.4	3,269.6	6,500.4
Delay	80.6	90.3	93.7	93.2	94.7	79.9	84.1	86.6	90.4	88.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.6	90.3	93.7	93.2	94.7	79.9	84.1	86.6	90.4	88.2
Mean Queue	11.4	12.6	13.3	13.0	12.4	10.7	10.8	11.6	12.3	12.0
Max Queue	26.4	26.3	27.0	26.9	26.4	26.0	25.3	25.6	26.6	26.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.4	12.6	13.3	13.0	12.4	10.7	10.8	11.6	12.3	12.0
Total Max Queue	26.4	26.3	27.0	26.9	26.4	26.0	25.3	25.6	26.6	26.3
Speed	21.3	20.6	21.4	20.3	19.4	21.3	20.6	21.3	20.6	20.8

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	977.6	1,033.2	962.4	950.4	910.4	913.6	923.2	840.0	3,736.8	7,510.8
Delay	239.4	300.7	338.6	370.7	339.0	354.6	334.6	358.7	350.7	331.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	239.4	300.7	338.6	370.7	339.0	354.6	334.6	358.7	350.7	331.9
Mean Queue	34.2	41.4	44.6	48.1	45.7	43.5	43.4	46.1	45.5	43.6
Max Queue	65.3	71.7	75.4	75.8	73.9	71.6	74.2	73.4	74.2	72.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	34.2	41.4	44.6	48.1	45.7	43.5	43.4	46.1	45.5	43.6
Total Max Queue	65.3	71.7	75.4	75.8	73.9	71.6	74.2	73.4	74.2	72.8
Speed	17.1	18.0	18.3	18.0	18.4	17.9	17.2	17.4	18.1	17.8

2025 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	187.2	236.0	218.8	233.2	255.2	334.0	332.8	342.0	1,041.2	2,139.2
Delay	17.9	18.0	17.9	19.2	20.0	19.4	19.1	20.6	19.1	19.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	18.0	17.9	19.2	20.0	19.4	19.1	20.6	19.1	19.0
Mean Queue	0.4	0.6	0.5	0.6	0.7	0.8	0.9	0.9	0.7	0.7
Max Queue	3.1	3.3	3.4	3.6	4.1	4.1	5.2	4.5	3.8	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.6	0.5	0.6	0.7	0.8	0.9	0.9	0.7	0.7
Total Max Queue	3.1	3.3	3.4	3.6	4.1	4.1	5.2	4.5	3.8	3.9
Speed	24.3	23.0	25.0	24.3	23.0	22.2	22.3	21.4	23.6	23.2

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	406.4	460.0	494.0	542.4	517.6	516.8	467.2	425.6	2,070.8	3,830.0
Delay	52.1	57.2	61.9	84.0	82.5	73.2	62.4	55.7	75.4	67.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.1	57.3	61.9	84.1	82.6	73.2	62.5	55.7	75.4	67.2
Mean Queue	1.9	2.3	2.9	4.1	3.8	3.3	2.5	2.1	3.5	2.9
Max Queue	5.7	5.9	7.3	10.5	8.6	8.4	6.9	5.9	8.7	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.8	0.7	0.7	0.9	0.4	0.6	0.6	0.7	0.7
Total Mean Queue	1.9	2.3	2.9	4.1	3.8	3.3	2.5	2.1	3.5	2.9
Total Max Queue	6.3	6.7	8.0	11.2	9.5	8.8	7.5	6.5	9.4	8.2
Speed	6.4	6.2	5.7	4.4	4.5	4.8	5.8	6.3	4.9	5.5

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	970.0	1,003.6	991.6	1,025.6	1,019.2	1,024.0	1,015.6	1,020.8	4,060.4	8,070.4
Delay	73.8	72.9	76.1	67.4	68.5	76.6	65.5	68.3	72.1	71.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.8	72.9	76.1	67.4	68.5	76.6	65.5	68.3	72.1	71.3
Mean Queue	12.5	12.1	11.8	11.3	11.4	12.3	11.0	11.3	11.7	11.7
Max Queue	27.1	26.6	26.6	26.1	26.5	26.9	26.4	26.6	26.5	26.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	12.5	12.1	11.8	11.3	11.4	12.3	11.0	11.3	11.7	11.7
Total Max Queue	27.1	26.6	26.6	26.1	26.5	26.9	26.4	26.6	26.5	26.6
Speed	19.5	19.1	18.9	20.3	19.9	19.4	20.4	19.8	19.6	19.7

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	919.2	940.4	1,026.4	972.0	976.4	920.8	976.8	946.4	3,895.6	7,678.4
Delay	41.3	77.9	112.1	133.2	121.0	111.5	125.1	101.4	119.4	104.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.3	77.9	112.1	133.2	121.0	111.5	125.1	101.4	119.4	104.8
Mean Queue	3.5	8.6	13.2	14.7	13.0	12.3	13.4	9.9	13.3	11.3
Max Queue	13.0	20.9	26.7	26.6	24.8	24.1	24.2	22.1	25.6	23.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.5	8.6	13.2	14.7	13.0	12.3	13.4	9.9	13.3	11.3
Total Max Queue	13.0	20.9	26.7	26.6	24.8	24.1	24.2	22.1	25.6	23.1
Speed	22.7	24.1	24.5	24.3	24.1	23.8	23.1	23.8	24.2	23.8

2025 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	565.6	560.4	512.0	494.8	400.8	496.4	460.4	492.8	1,904.0	3,983.2
Delay	38.9	31.6	31.2	30.5	26.5	28.3	35.1	34.6	29.1	31.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	31.6	31.2	30.5	26.5	28.3	35.1	34.6	29.1	31.8
Mean Queue	2.9	2.3	2.1	1.9	1.4	1.8	2.2	2.3	1.8	2.1
Max Queue	8.5	7.6	7.6	6.9	6.1	6.8	7.0	7.1	6.9	7.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	2.9	2.3	2.1	1.9	1.4	1.8	2.2	2.3	1.8	2.1
Total Max Queue	8.5	7.6	7.6	6.9	6.1	6.8	7.0	7.1	6.9	7.2
Speed	16.2	18.3	17.0	16.9	18.5	18.7	17.1	16.4	17.8	17.4

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	500.4	492.4	534.4	502.4	543.2	448.4	484.0	498.0	2,028.4	4,003.2
Delay	71.3	61.5	66.7	63.2	61.1	54.3	62.3	81.2	61.4	64.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.3	61.5	66.7	63.2	61.2	54.3	62.3	81.2	61.4	64.8
Mean Queue	3.1	2.7	3.2	2.7	2.9	2.2	2.7	3.9	2.7	2.9
Max Queue	8.0	7.4	7.8	7.1	7.6	6.2	6.9	9.7	7.2	7.5
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.6	0.3	0.7	0.7	1.0	0.4	0.8	0.7	0.7	0.7
Total Mean Queue	3.1	2.7	3.2	2.7	2.9	2.2	2.7	3.9	2.7	2.9
Total Max Queue	8.6	7.7	8.5	7.8	8.6	6.6	7.7	10.4	7.9	8.2
Speed	6.8	8.0	7.5	7.2	7.6	8.0	7.2	7.0	7.6	7.4

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	797.6	906.8	849.2	835.2	840.4	863.2	886.8	888.8	3,388.0	6,868.0
Delay	43.8	48.9	50.1	48.9	49.6	47.4	46.9	54.5	49.0	48.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	48.9	50.1	48.9	49.6	47.4	46.9	54.5	49.0	48.8
Mean Queue	5.9	7.2	6.7	6.3	6.9	6.5	7.1	8.0	6.6	6.8
Max Queue	25.8	26.0	25.9	24.3	25.3	24.9	25.3	25.7	25.1	25.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	5.9	7.2	6.7	6.3	6.9	6.5	7.1	8.0	6.6	6.8
Total Max Queue	25.8	26.0	25.9	24.3	25.3	24.9	25.3	25.7	25.1	25.4
Speed	25.0	25.0	24.7	25.0	24.4	25.0	25.8	26.0	24.8	25.1

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	857.2	837.2	867.2	875.2	827.6	872.4	840.8	853.2	3,442.4	6,830.8
Delay	82.6	92.1	97.5	87.4	64.0	77.1	92.8	98.4	81.5	85.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	82.6	92.1	97.5	87.4	64.0	77.1	92.8	98.4	81.5	85.9
Mean Queue	8.7	8.2	9.3	8.0	5.4	7.4	9.0	9.4	7.5	8.1
Max Queue	21.0	20.8	19.9	18.5	16.8	18.6	20.1	19.9	18.5	19.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.7	8.2	9.3	8.0	5.4	7.4	9.0	9.4	7.5	8.1
Total Max Queue	21.0	20.8	19.9	18.5	16.8	18.6	20.1	19.9	18.5	19.3
Speed	26.4	25.1	27.6	25.4	25.1	25.6	25.2	25.2	25.9	25.7

2025 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	586.4	701.2	741.6	782.4	759.2	730.8	740.8	732.0	3,014.0	5,774.4
Delay	38.5	43.4	48.2	46.1	47.6	48.3	44.3	48.7	47.5	45.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	43.4	48.2	46.1	47.6	48.3	44.3	48.7	47.5	45.8
Mean Queue	3.1	4.0	4.8	4.8	4.8	4.7	4.4	4.7	4.8	4.5
Max Queue	8.6	8.8	9.7	10.2	9.3	9.6	8.7	9.1	9.7	9.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.1	4.0	4.8	4.8	4.8	4.7	4.4	4.7	4.8	4.5
Total Max Queue	8.6	8.8	9.7	10.2	9.3	9.6	8.7	9.1	9.7	9.3
Speed	19.1	19.4	18.2	20.6	19.6	19.2	22.9	20.8	19.4	19.9

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	526.0	569.2	541.2	537.2	547.6	525.2	519.6	518.8	2,151.2	4,284.8
Delay	66.6	64.7	88.6	83.5	81.5	81.3	89.6	88.7	83.7	80.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	66.6	64.7	88.7	83.5	81.5	81.3	89.6	88.7	83.7	80.9
Mean Queue	3.1	3.3	4.4	4.1	4.1	3.9	4.5	4.3	4.1	4.0
Max Queue	8.6	8.3	10.5	9.9	10.0	10.3	9.7	11.1	10.2	9.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	1.1	0.7	0.7	0.7	0.4	0.5	0.8	0.6	0.7
Total Mean Queue	3.1	3.3	4.4	4.1	4.1	3.9	4.5	4.3	4.1	4.0
Total Max Queue	9.3	9.4	11.2	10.6	10.7	10.7	10.2	11.9	10.8	10.5
Speed	6.1	6.6	5.8	6.3	5.7	6.4	6.1	5.6	6.1	6.1

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	830.8	822.0	861.2	846.0	844.0	833.6	809.2	799.6	3,384.8	6,646.4
Delay	80.9	91.1	92.3	96.1	90.8	77.6	85.2	76.3	89.2	86.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	80.9	91.1	92.3	96.1	90.8	77.6	85.2	76.3	89.2	86.6
Mean Queue	11.9	12.6	13.5	13.6	12.8	10.2	11.4	10.1	12.5	12.1
Max Queue	26.5	26.5	26.8	26.3	26.9	25.5	26.8	26.3	26.4	26.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.9	12.6	13.5	13.6	12.8	10.2	11.4	10.1	12.5	12.1
Total Max Queue	26.5	26.5	26.8	26.3	26.9	25.5	26.8	26.3	26.4	26.4
Speed	22.3	19.9	21.0	20.5	20.8	20.1	20.4	21.9	20.6	20.9

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
Statistic	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	991.2	918.8	881.6	898.8	924.0	925.2	1,010.0	957.6	3,629.6	7,507.2
Delay	220.7	324.7	379.2	396.0	362.5	352.5	322.0	344.5	372.6	341.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.7	324.7	379.2	396.0	362.5	352.5	322.0	344.5	372.6	341.6
Mean Queue	32.0	43.5	47.7	47.9	45.6	44.5	42.6	46.6	46.4	44.1
Max Queue	71.0	73.6	75.5	75.3	75.4	73.0	73.5	75.2	74.8	74.1
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	32.0	43.5	47.7	47.9	45.6	44.5	42.6	46.6	46.4	44.1
Total Max Queue	71.0	73.6	75.5	75.3	75.4	73.0	73.5	75.2	74.8	74.1
Speed	17.3	17.7	16.7	17.4	17.1	17.3	17.3	17.4	17.1	17.3

2030 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	184.0	223.2	248.8	260.0	272.0	346.8	332.8	328.8	1,127.6	2,196.4
Delay	17.2	15.4	19.3	18.2	19.4	21.1	20.8	20.1	19.5	19.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	15.4	19.3	18.2	19.4	21.1	20.8	20.1	19.5	19.0
Mean Queue	0.4	0.5	0.6	0.6	0.7	1.0	0.9	0.8	0.7	0.7
Max Queue	2.8	3.2	3.9	3.5	3.7	5.0	4.5	4.4	4.0	3.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	0.4	0.5	0.6	0.6	0.7	1.0	0.9	0.8	0.7	0.7
Total Max Queue	2.8	3.2	3.9	3.5	3.7	5.0	4.5	4.4	4.0	3.9
Speed	25.1	27.2	24.0	24.1	23.1	22.0	21.8	21.9	23.3	23.6

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	427.6	460.8	530.8	554.8	577.6	563.6	507.6	443.2	2,226.8	4,066.0
Delay	51.7	65.1	75.8	98.0	108.8	84.4	86.1	62.6	91.8	80.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	65.1	75.8	98.0	108.8	84.4	86.1	62.6	91.8	80.5
Mean Queue	1.9	2.7	3.6	5.4	5.7	4.2	3.9	2.3	4.7	3.8
Max Queue	5.9	6.8	8.3	11.6	12.2	9.5	9.0	5.9	10.4	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.4	0.7	0.9	0.9	0.8	0.7	0.6	0.8	0.7
Total Mean Queue	1.9	2.7	3.6	5.4	5.7	4.2	3.9	2.3	4.7	3.8
Total Max Queue	6.6	7.2	9.0	12.5	13.1	10.3	9.7	6.5	11.2	9.6
Speed	6.5	5.0	4.6	3.5	3.8	4.0	4.5	6.3	4.0	4.7

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	999.2	1,030.0	1,013.2	1,036.4	990.4	1,058.0	1,049.6	1,054.4	4,098.0	8,231.2
Delay	72.4	74.0	78.3	72.4	76.8	71.7	67.8	69.6	74.8	73.1
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.4	74.0	78.3	72.4	76.8	71.7	67.8	69.6	74.8	73.1
Mean Queue	12.8	12.4	12.8	12.5	12.8	12.4	11.9	12.2	12.6	12.5
Max Queue	27.1	27.1	27.2	26.8	27.1	27.8	27.0	27.2	27.2	27.2
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	12.8	12.4	12.8	12.5	12.8	12.4	11.9	12.2	12.6	12.5
Total Max Queue	27.1	27.1	27.2	26.8	27.1	27.8	27.0	27.2	27.2	27.2
Speed	18.7	19.0	18.1	18.8	18.4	19.2	19.4	18.8	18.6	18.8

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	08:00 - 09:00	07:30 - 09:30
	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15		
Flow	867.2	968.0	982.8	980.4	1,002.8	928.4	947.6	911.2	3,894.4	7,588.4
Delay	46.5	68.5	124.9	149.5	129.7	88.9	103.7	121.0	123.3	106.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	68.5	124.9	149.5	129.7	88.9	103.7	121.0	123.3	106.2
Mean Queue	3.7	7.6	15.2	17.1	13.0	9.4	11.1	12.2	13.7	11.5
Max Queue	12.6	21.2	29.2	32.9	28.1	21.5	24.1	23.7	27.9	24.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.7	7.6	15.2	17.1	13.0	9.4	11.1	12.2	13.7	11.5
Total Max Queue	12.6	21.2	29.2	32.9	28.1	21.5	24.1	23.7	27.9	24.6
Speed	21.9	24.1	25.0	24.7	24.7	24.4	23.5	23.7	24.7	24.1

2030 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	625.6	642.4	595.2	578.4	494.0	573.2	534.0	550.8	2,240.8	4,593.6
Delay	35.8	36.8	36.1	36.2	31.9	29.4	35.5	34.2	33.4	34.4
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	36.8	36.1	36.2	31.9	29.4	35.5	34.2	33.4	34.4
Mean Queue	3.0	3.0	2.8	2.8	2.0	2.2	2.5	2.6	2.5	2.6
Max Queue	8.4	8.2	8.2	8.0	7.8	7.7	7.5	7.6	7.9	7.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.0	3.0	2.8	2.8	2.0	2.2	2.5	2.6	2.5	2.6
Total Max Queue	8.4	8.2	8.2	8.0	7.8	7.7	7.5	7.6	7.9	7.9
Speed	19.4	19.6	18.4	16.6	18.2	19.0	17.4	18.0	18.1	18.3

Arm Reference:	B
Name	A1085 Longlands Road (East)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	517.2	508.8	532.8	508.0	534.4	493.6	512.0	535.2	2,068.8	4,142.0
Delay	68.3	66.3	68.2	65.3	69.0	69.4	69.8	73.6	67.9	68.6
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.4	66.3	68.2	65.3	69.0	69.4	69.8	73.6	68.0	68.6
Mean Queue	3.2	3.0	3.2	3.0	3.4	3.1	3.0	3.6	3.2	3.2
Max Queue	8.9	8.2	8.1	7.4	8.7	9.6	8.2	8.4	8.5	8.4
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.7	0.9	0.7	0.7	1.0	0.8	0.6	1.0	0.8	0.8
Total Mean Queue	3.2	3.0	3.2	3.0	3.4	3.1	3.0	3.6	3.2	3.2
Total Max Queue	9.6	9.1	8.8	8.1	9.7	10.4	8.8	9.4	9.3	9.2
Speed	7.5	7.3	7.0	7.1	7.0	7.0	7.1	7.1	7.0	7.1

Arm Reference:	C
Name	Ormesby Road

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	865.2	922.8	868.4	958.4	906.8	907.2	962.4	910.4	3,640.8	7,301.6
Delay	55.3	59.6	62.1	57.2	64.2	65.7	68.6	67.6	62.3	62.5
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	59.6	62.1	57.2	64.2	65.7	68.6	67.6	62.3	62.5
Mean Queue	8.6	8.8	9.5	8.6	10.1	10.5	11.2	11.1	9.7	9.8
Max Queue	26.5	26.6	26.7	26.5	26.4	26.9	26.9	26.4	26.6	26.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	8.6	8.8	9.5	8.6	10.1	10.5	11.2	11.1	9.7	9.8
Total Max Queue	26.5	26.6	26.7	26.5	26.4	26.9	26.9	26.4	26.6	26.6
Speed	23.3	22.9	21.9	24.4	24.3	23.0	23.2	23.1	23.4	23.3

Arm Reference:	D
Name	A1085 Longlands Road (West)

	1	2	3	4	5	6	7	8	12:30 - 13:30	12:00 - 14:00
Statistic	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45		
Flow	912.8	934.0	976.8	921.6	966.4	958.4	840.0	937.6	3,823.2	7,447.6
Delay	124.2	159.2	169.2	176.4	150.3	125.3	119.5	133.6	155.3	145.9
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	124.2	159.2	169.2	176.4	150.3	125.3	119.5	133.6	155.3	145.9
Mean Queue	15.0	18.1	19.7	18.7	15.4	13.9	11.8	14.7	17.0	16.0
Max Queue	27.7	31.2	37.4	36.2	32.5	26.0	24.3	27.2	33.0	30.6
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	15.0	18.1	19.7	18.7	15.4	13.9	11.8	14.7	17.0	16.0
Total Max Queue	27.7	31.2	37.4	36.2	32.5	26.0	24.3	27.2	33.0	30.6
Speed	27.1	27.6	26.9	26.8	27.2	27.9	26.2	26.6	27.2	27.1

2030 Do Something

J-18 Ormesby Road / A1085 Longlands Road / Kings Road

Arm Reference:	A
Name	Kings Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	578.4	740.4	694.4	667.2	762.0	697.2	745.6	721.6	2,820.8	5,606.8
Delay	41.2	42.6	50.6	51.0	44.8	47.5	45.0	45.1	48.5	46.3
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	42.6	50.6	51.0	44.8	47.5	45.0	45.1	48.5	46.3
Mean Queue	3.3	4.2	4.7	4.6	4.6	4.4	4.5	4.5	4.6	4.4
Max Queue	9.1	9.2	9.5	8.5	9.0	8.4	8.5	8.3	8.9	8.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	3.3	4.2	4.7	4.6	4.6	4.4	4.5	4.5	4.6	4.4
Total Max Queue	9.1	9.2	9.5	8.5	9.0	8.4	8.5	8.3	8.9	8.8
Speed	17.3	21.7	19.3	19.0	21.8	21.3	23.3	22.1	20.3	20.7

Arm Reference:	B
Name	A1085 Longlands Road (East)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	570.0	560.4	567.6	560.0	602.4	566.8	596.8	608.8	2,296.8	4,632.8
Delay	70.6	78.8	114.6	123.3	105.7	110.1	120.7	135.2	113.4	108.0
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	78.8	114.6	123.3	105.7	110.1	120.7	135.2	113.4	108.0
Mean Queue	3.5	4.0	6.7	6.7	6.3	6.1	7.5	8.2	6.4	6.2
Max Queue	9.4	9.7	14.7	15.7	14.6	12.8	16.5	16.2	14.5	13.8
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	1.0	0.9	1.0	0.8	1.2	0.6	0.9	0.4	0.9	0.9
Total Mean Queue	3.5	4.0	6.7	6.7	6.3	6.1	7.5	8.2	6.4	6.2
Total Max Queue	10.4	10.6	15.7	16.5	15.8	13.4	17.4	16.6	15.4	14.6
Speed	6.0	5.9	5.3	5.4	5.5	6.0	5.3	5.1	5.6	5.6

Arm Reference:	C
Name	Ormesby Road

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	815.2	832.4	853.2	829.2	803.2	831.2	811.2	834.4	3,316.8	6,610.0
Delay	81.2	88.5	92.0	99.1	105.9	96.5	104.4	99.8	98.4	96.2
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	81.2	88.5	92.0	99.1	105.9	96.5	104.4	99.8	98.4	96.2
Mean Queue	11.6	12.2	13.3	13.7	14.5	13.6	14.5	14.2	13.8	13.5
Max Queue	26.8	26.7	26.9	26.7	27.4	27.0	26.9	27.1	27.0	26.9
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	11.6	12.2	13.3	13.7	14.5	13.6	14.5	14.2	13.8	13.5
Total Max Queue	26.8	26.7	26.9	26.7	27.4	27.0	26.9	27.1	27.0	26.9
Speed	20.8	19.9	20.0	20.5	18.5	20.1	18.5	20.3	19.8	19.8

Arm Reference:	D
Name	A1085 Longlands Road (West)

Statistic	1	2	3	4	5	6	7	8	16:30 - 17:30	16:00 - 18:00
	16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45		
Flow	993.2	977.2	989.2	971.2	962.8	897.2	966.0	939.6	3,820.4	7,696.4
Delay	248.7	340.2	355.3	360.1	348.7	365.1	361.9	338.4	357.3	341.8
Delay Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	248.7	340.2	355.3	360.1	348.7	365.1	361.9	338.4	357.3	341.8
Mean Queue	36.2	46.4	47.0	47.7	46.3	46.6	45.4	45.8	46.9	45.4
Max Queue	67.6	75.1	75.9	75.3	74.9	74.9	74.8	74.9	75.3	74.3
Mean Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Virtual Queue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Mean Queue	36.2	46.4	47.0	47.7	46.3	46.6	45.4	45.8	46.9	45.4
Total Max Queue	67.6	75.1	75.9	75.3	74.9	74.9	74.8	74.9	75.3	74.3
Speed	17.8	17.9	17.8	17.6	17.9	16.5	17.9	18.1	17.5	17.7

Appendix F

Junction Statistics - Macroscopic Model

Land at South Tees Development Corporation
Junction Statistics

J-20

2019 Base 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	30.6	24.5	5.9	28.7	LTB	89.8	42.2	12.7	41.4	LTC	23.4	34.2	21.9	74.8	LTD	5.4	44.2	16.1	50.6
AHA	213.4	25.9	5.9	28.7	AHB	313.7	42.9	12.8	41.8	AHC	213.4	25.9	5.9	28.7	AHD	484.2	49.6	19.5	78.7
RTA	17.1	23.6	0.4	6.0	RTB	93.7	51.3	2.8	45.9	RTC	145.7	30.2	21.9	42.1	RTD	71.1	46.7	2.1	34.2
	261.0	24.7	4.0			497.2	45.4	9.4	43.0		382.5	30.1	16.6	48.5		560.7	46.8	12.5	54.5

J-20

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	30.6	24.5	5.9	28.7	LTB	89.8	42.2	12.7	42.2	LTC	23.4	34.2	21.9	34.2	LTD	5.4	44.2	16.1	44.2
AHA	213.4	25.9	5.9	28.7	AHB	313.7	42.9	12.8	42.9	AHC	213.4	25.9	5.9	25.9	AHD	484.2	49.6	19.5	49.6
RTA	17.1	23.6	0.4	6.0	RTB	93.7	51.3	2.8	51.3	RTC	145.7	30.2	21.9	30.2	RTD	71.1	46.7	2.1	46.7
	261.0	24.7	4.0			497.2	45.4	9.4	45.4		382.5	30.1	16.6	30.1		560.7	46.8	12.5	46.8

J-20

2019 Base 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	34.3	28.0	8.1	48.9	LTB	121.8	33.0	9.2	36.7	LTC	28.2	31.4	12.2	65.7	LTD	15.5	33.0	6.8	27.9
AHA	300.1	29.4	8.1	48.9	AHB	253.4	34.2	10.9	42.6	AHC	300.1	29.4	8.1	48.9	AHD	267.8	32.8	6.8	28.2
RTA	19.0	25.2	0.4	6.7	RTB	55.7	34.9	7.4	22.5	RTC	144.9	32.1	12.2	44.3	RTD	24.9	32.6	0.6	10.3
	353.4	27.5	5.5			430.8	34.1	9.2	33.9		473.1	30.9	10.8	53.0		308.2	32.8	4.7	22.2

J-20

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	34.3	28.0	8.1	48.9	LTB	121.8	33.0	9.2	33.0	LTC	28.2	31.4	12.2	31.4	LTD	15.5	33.0	6.8	33.0
AHA	300.1	29.4	8.1	48.9	AHB	253.4	34.2	10.9	34.2	AHC	300.1	29.4	8.1	29.4	AHD	267.8	32.8	6.8	32.8
RTA	19.0	25.2	0.4	6.7	RTB	55.7	34.9	7.4	34.9	RTC	144.9	32.1	12.2	32.1	RTD	24.9	32.6	0.6	32.6
	353.4	27.5	5.5			430.8	34.1	9.2	34.1		473.1	30.9	10.8	30.9		308.2	32.8	4.7	32.8

Land at South Tees Development Corporation
Junction Statistics

J-20

2019 Base 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	192.7	36.0	19.7	73.1	LTB	124.2	38.7	14.1	41.1	LTC	37.8	30.6	11.1	61.7	LTD	13.0	37.7	8.4	26.3
AHA	373.2	37.4	19.7	73.1	AHB	340.4	40.3	16.8	47.8	AHC	373.2	37.4	19.7	73.1	AHD	282.0	39.5	9.1	40.8
RTA	0.1	25.6	0.0	0.0	RTB	71.6	42.0	12.2	31.0	RTC	121.7	30.9	11.1	39.1	RTD	110.0	48.3	3.1	49.3
	566.1	33.0	13.2			536.2	40.3	14.4	40.0		532.7	33.0	14.0	58.0		404.9	41.8	6.9	38.8

J-20

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	192.7	36.0	19.7	73.1	LTB	124.2	38.7	14.1	38.7	LTC	37.8	30.6	11.1	30.6	LTD	13.0	37.7	8.4	37.7
AHA	373.2	37.4	19.7	73.1	AHB	340.4	40.3	16.8	40.3	AHC	373.2	37.4	19.7	37.4	AHD	282.0	39.5	9.1	39.5
RTA	0.1	25.6	0.0	0.0	RTB	71.6	42.0	12.2	42.0	RTC	121.7	30.9	11.1	30.9	RTD	110.0	48.3	3.1	48.3
	566.1	33.0	13.2			536.2	40.3	14.4	40.3		532.7	33.0	14.0	33.0		404.9	41.8	6.9	41.8

Land at South Tees Development Corporation
Junction Statistics

J-20

2025 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	264.6	30.3	16.3	62.7	LTB	31.4	46.4	11.1	64.9	LTC	31.5	40.7	30.4	87.5	LTD	11.2	43.7	6.6	43.5
AHA	268.7	31.7	16.3	62.7	AHB	274.5	47.0	11.1	64.9	AHC	268.7	31.7	16.3	62.7	AHD	192.2	48.4	7.6	66.9
RTA	17.2	23.5	0.4	6.2	RTB	100.5	51.1	3.0	45.8	RTC	145.2	31.6	30.4	45.5	RTD	64.3	45.5	1.9	30.3
	550.5	28.5	11.0			406.3	48.2	8.4	58.6		445.4	34.7	25.7	65.3		267.7	45.8	5.4	46.9

J-20

2025 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	272.9	30.4	16.4	63.1	LTB	33.8	46.5	11.2	65.6	LTC	65.2	41.6	31.4	88.5	LTD	10.7	43.6	6.6	43.4
AHA	261.7	31.8	16.4	63.1	AHB	275.3	47.1	11.2	65.6	AHC	261.7	31.8	16.4	63.1	AHD	192.4	48.4	7.6	66.8
RTA	17.2	23.5	0.4	6.2	RTB	95.2	50.3	2.8	43.5	RTC	148.1	31.9	31.4	46.4	RTD	68.2	46.0	2.0	32.1
	551.8	28.6	11.1			404.3	48.0	8.4	58.2		475.0	35.1	26.4	66.0		271.2	46.0	5.4	47.4

Land at South Tees Development Corporation
Junction Statistics

J-20

2025 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	66.1	32.4	14.3	72.4	LTB	96.7	37.7	9.9	67.7	LTC	26.7	32.2	12.9	69.3	LTD	32.6	35.4	6.1	47.1
AHA	428.5	33.8	14.3	72.4	AHB	237.7	38.3	9.9	67.7	AHC	428.5	33.8	14.3	72.4	AHD	198.3	35.1	6.1	47.1
RTA	24.1	25.2	0.5	8.4	RTB	55.9	35.5	1.3	22.4	RTC	127.9	30.9	12.9	40.6	RTD	38.7	33.6	0.9	15.9
	518.7	30.5	9.7			390.3	37.2	7.0	52.6		583.1	32.3	13.4	60.7		269.6	34.7	4.3	36.7

J-20

2025 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	66.0	32.7	14.6	73.3	LTB	97.0	37.8	10.0	68.4	LTC	24.2	31.9	12.5	67.9	LTD	32.6	35.3	6.0	46.6
AHA	433.5	34.1	14.6	73.3	AHB	241.0	38.4	10.0	68.4	AHC	433.5	34.1	14.6	73.3	AHD	196.0	35.1	6.0	46.6
RTA	24.1	25.2	0.5	8.4	RTB	55.8	35.5	1.3	22.4	RTC	123.3	30.5	12.5	39.2	RTD	37.1	33.5	0.8	15.3
	523.5	30.6	9.9			393.9	37.3	7.1	53.1		581.0	32.1	13.2	60.1		265.7	34.6	4.3	36.2

Land at South Tees Development Corporation
Junction Statistics

J-20

2025 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	161.3	38.3	23.1	79.4	LTB	83.6	47.4	17.6	80.0	LTC	37.9	32.5	12.9	56.8	LTD	13.4	40.3	7.4	43.5
AHA	453.7	39.7	23.1	79.4	AHB	353.9	48.0	17.6	80.0	AHC	453.7	39.7	23.1	79.4	AHD	222.6	45.2	8.6	66.9
RTA	1.3	25.5	0.0	0.4	RTB	110.8	47.8	3.2	47.1	RTC	99.5	31.4	12.9	33.6	RTD	93.3	45.5	2.6	42.0
	616.3	34.5	15.4			548.3	47.7	12.8	69.0		591.1	34.5	16.3	56.6		329.4	43.7	6.2	50.8

J-20

2025 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	174.2	39.4	24.6	81.9	LTB	90.9	47.2	17.4	79.5	LTC	37.9	32.5	12.9	56.9	LTD	13.2	39.9	6.8	40.8
AHA	458.1	40.8	24.6	81.9	AHB	344.3	47.8	17.4	79.5	AHC	458.1	40.8	24.6	81.9	AHD	208.2	44.2	7.8	62.7
RTA	1.5	25.5	0.0	0.5	RTB	114.1	48.2	3.3	48.3	RTC	99.6	31.5	12.9	33.8	RTD	90.2	45.0	2.5	40.6
	633.8	35.2	16.4			549.3	47.8	12.7	69.1		595.7	34.9	16.8	57.5		311.7	43.0	5.7	48.0

Land at South Tees Development Corporation
Junction Statistics

J-20

2030 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	353.7	16.7	15.7	49.3	LTB	2.7	76.1	8.2	77.8	LTC	133.3	21.2	26.2	67.3	LTD	14.4	72.5	4.5	50.5
AHA	266.0	18.1	15.7	49.3	AHB	145.2	76.7	8.2	77.8	AHC	266.0	18.1	15.7	49.3	AHD	80.8	78.4	5.4	77.7
RTA	18.0	13.3	0.3	5.5	RTB	29.4	74.8	1.3	22.8	RTC	121.7	17.0	26.2	32.7	RTD	7.1	69.6	0.3	5.6
	637.7	16.0	10.6			177.3	75.8	5.9	59.5		521.0	18.7	22.7	49.8		102.3	73.5	3.4	44.6

J-20

2030 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	343.3	16.5	15.0	47.8	LTB	2.6	76.8	8.6	80.3	LTC	84.3	20.3	23.9	64.2	LTD	6.2	72.1	4.2	47.0
AHA	255.3	17.8	15.0	47.8	AHB	150.0	77.4	8.6	80.3	AHC	255.3	17.8	15.0	47.8	AHD	82.4	76.7	4.8	72.3
RTA	17.5	13.2	0.3	5.3	RTB	47.0	79.6	2.1	36.5	RTC	117.9	16.7	23.9	31.5	RTD	7.8	69.8	0.3	6.2
	616.1	15.8	10.1			199.6	77.9	6.4	65.7		457.6	18.3	20.9	47.8		96.5	72.9	3.1	41.8

Land at South Tees Development Corporation
Junction Statistics

J-20

2030 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	55.0	32.5	14.4	72.7	LTB	99.3	37.4	9.6	66.2	LTC	30.0	32.9	13.8	72.3	LTD	22.7	35.6	6.3	48.8
AHA	441.5	33.9	14.4	72.7	AHB	227.7	38.0	9.6	66.2	AHC	441.5	33.9	14.4	72.7	AHD	216.8	35.3	6.3	48.8
RTA	24.4	25.2	0.5	8.6	RTB	67.9	36.5	1.6	27.3	RTC	129.6	31.0	13.8	41.2	RTD	39.1	33.6	0.9	16.1
	520.9	30.5	9.8			394.9	37.3	6.9	53.2		601.2	32.6	14.0	62.0		278.6	34.8	4.5	37.9

J-20

2030 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	60.9	33.0	14.9	74.3	LTB	98.9	38.4	10.7	71.1	LTC	24.6	32.6	13.4	71.0	LTD	28.9	35.6	6.4	48.9
AHA	445.3	34.3	14.9	74.3	AHB	252.6	39.0	10.7	71.1	AHC	445.3	34.3	14.9	74.3	AHD	210.8	35.3	6.4	48.9
RTA	24.5	25.2	0.5	8.6	RTB	50.0	35.1	1.1	20.1	RTC	127.0	30.8	13.4	40.4	RTD	38.9	33.6	0.9	16.0
	530.8	30.8	10.1			401.4	37.5	7.5	54.1		596.9	32.6	13.9	61.9		278.7	34.8	4.5	37.9

Land at South Tees Development Corporation
Junction Statistics

J-20

2030 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	169.3	40.4	26.0	83.9	LTB	85.4	48.0	18.3	81.6	LTC	38.3	32.8	13.5	58.4	LTD	11.5	40.5	7.7	44.9
AHA	480.3	41.8	26.0	83.9	AHB	360.9	48.6	18.3	81.6	AHC	480.3	41.8	26.0	83.9	AHD	232.4	45.9	9.0	69.1
RTA	1.6	25.5	0.0	0.6	RTB	116.0	48.7	3.3	49.3	RTC	103.4	31.9	13.5	35.2	RTD	89.0	44.9	2.5	40.1
	651.2	35.9	17.4	56.1		562.2	48.5	13.3	70.8		622.0	35.5	17.6	59.2		332.9	43.7	6.4	51.4

J-20

2030 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)					D: Croft Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	180.4	40.0	25.4	83.1	LTB	89.7	48.2	18.5	82.0	LTC	39.2	32.8	13.4	58.2	LTD	12.0	39.9	6.9	40.9
AHA	461.1	41.4	25.4	83.1	AHB	358.8	48.8	18.5	82.0	AHC	461.1	41.4	25.4	83.1	AHD	210.1	44.2	7.9	62.9
RTA	1.6	25.5	0.0	0.5	RTB	124.8	50.2	3.6	52.9	RTC	104.2	31.9	13.4	35.4	RTD	92.3	45.5	2.6	41.8
	643.0	35.6	16.9	55.6		573.3	49.1	13.5	72.3		604.5	35.4	17.4	58.9		314.5	43.2	5.8	48.5

Land at South Tees Development Corporation
Junction Statistics

J-21

2019 Base 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	421.1	19.0	10.0	26.7	AHB	566.3	24.4	14.7	61.6	LTC	155.9	37.5	4.2	33.2
RTA	88.8	25.4	10.0	22.4	LTB	592.3	41.0	6.4	88.2	RTC	364.9	46.6	12.3	73.8
	509.9	22.2	10.0			1158.6	32.7	10.6	74.9		520.9	42.0	8.2	53.5

J-21

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	421.1	19.0	10.0	26.7	LTB	566.3	24.4	14.7	24.4	LTC	155.9	37.5	4.2	37.5
AHA	88.8	25.4	10.0	22.4	AHB	592.3	41.0	6.4	41.0	AHC	364.9	46.6	12.3	46.6
	509.9	22.2	10.0			1158.6	32.7	10.6	32.7		520.9	42.0	8.2	42.0

Land at South Tees Development Corporation
Junction Statistics

J-21

2019 Base 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	414.8	19.8	8.9	25.9	AHB	387.8	22.5	8.6	45.5	LTC	56.5	31.8	1.3	11.3
RTA	43.5	24.6	8.8	11.0	LTB	354.6	12.3	1.1	52.1	RTC	391.9	43.2	12.3	74.2
	458.3	22.2	8.8			742.4	17.4	4.9	48.8		448.4	37.5	6.8	42.7

J-21

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	414.8	19.8	8.9	25.9	LTB	387.8	22.5	8.6	22.5	LTC	56.5	31.8	1.3	31.8
AHA	43.5	24.6	8.8	11.0	AHB	354.6	12.3	1.1	12.3	AHC	391.9	43.2	12.3	43.2
	458.3	22.2	8.8			742.4	17.4	4.9	17.4		448.4	37.5	6.8	37.5

Land at South Tees Development Corporation
Junction Statistics

J-21

2019 Base 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	604.0	22.0	15.3	35.6	AHB	388.0	23.3	9.5	42.8	LTC	144.6	37.5	4.0	28.1
RTA	66.0	26.3	15.2	16.6	LTB	431.9	15.9	1.7	63.9	RTC	513.8	65.0	26.7	95.0
	670.0	24.2	15.2			820.0	19.6	5.6	53.3		658.4	51.3	15.4	61.6

J-21

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	604.0	22.0	15.3	35.6	LTB	388.0	23.3	9.5	23.3	LTC	144.6	37.5	4.0	37.5
AHA	66.0	26.3	15.2	16.6	AHB	431.9	15.9	1.7	15.9	AHC	513.8	65.0	26.7	65.0
	670.0	24.2	15.2			820.0	19.6	5.6	19.6		658.4	51.3	15.4	51.3

Land at South Tees Development Corporation
Junction Statistics

J-21

2025 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	423.3	19.2	11.1	29.1	AHB	655.9	26.7	18.8	71.3	LTC	121.2	36.6	3.1	25.8
RTA	132.4	27.5	11.0	34.0	LTB	633.6	70.8	11.8	95.5	RTC	409.2	49.8	15.3	82.8
	555.7	23.4	11.0			1289.5	48.8	15.3	83.4		530.4	43.2	9.2	54.3

J-21

2025 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	426.3	19.0	10.3	27.3	LTB	648.5	26.5	18.4	70.5	LTC	116.6	36.5	3.0	24.8
AHA	95.7	25.7	10.2	24.5	AHB	640.3	70.4	11.9	95.5	AHC	409.8	49.8	15.3	82.9
	522.0	22.4	10.3			1288.7	48.5	15.2	83.0		526.5	43.2	9.2	53.9

Land at South Tees Development Corporation
Junction Statistics

J-21

2025 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	535.2	20.6	11.8	33.0	AHB	399.6	22.7	9.0	46.9	LTC	57.2	31.8	1.3	11.4
RTA	48.7	24.8	11.7	12.3	LTB	444.7	16.5	1.9	65.5	RTC	326.4	40.5	9.3	61.8
	583.9	22.7	11.7			844.3	19.6	5.4	56.2		383.6	36.2	5.3	36.6

J-21

2025 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	539.1	20.6	11.8	33.2	LTB	390.1	22.5	8.7	45.8	LTC	57.0	31.8	1.3	11.3
AHA	48.3	24.8	11.8	12.2	AHB	441.1	16.2	1.8	64.9	AHC	323.2	40.4	9.2	61.2
	587.4	22.7	11.8			831.3	19.4	5.3	55.4		380.1	36.1	5.2	36.3

Land at South Tees Development Corporation
Junction Statistics

J-21

2025 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	708.2	22.8	18.7	41.8	AHB	393.0	23.4	9.7	43.3	LTC	186.5	38.6	5.3	36.3
RTA	78.7	26.9	18.5	19.9	LTB	451.6	17.3	2.0	67.0	RTC	538.6	88.6	33.0	99.6
	787.0	24.8	18.6			844.6	20.4	5.8	55.2		725.1	63.6	19.2	67.9

J-21

2025 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	727.7	22.9	19.3	42.8	LTB	393.6	23.4	9.7	43.4	LTC	196.8	38.9	5.7	38.3
AHA	77.4	26.8	19.1	19.5	AHB	442.4	16.7	1.9	65.7	AHC	520.0	68.6	28.1	96.2
	805.1	24.9	19.2			836.1	20.0	5.8	54.5		716.8	53.7	16.9	67.2

Land at South Tees Development Corporation
Junction Statistics

J-21

2030 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	332.0	36.9	15.0	39.3	AHB	587.9	70.6	35.3	97.6	LTC	280.2	27.0	6.9	34.7
RTA	159.8	53.2	14.9	57.2	LTB	657.9	105.1	18.0	99.9	RTC	494.9	33.4	14.7	58.2
	491.8	45.0	14.9			1245.8	87.8	26.6	98.8		775.1	30.2	10.8	46.4

J-21

2030 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	333.0	36.8	14.6	38.5	LTB	578.9	64.2	33.0	96.2	LTC	280.4	27.0	6.9	34.7
AHA	148.2	51.3	14.5	53.0	AHB	653.8	96.3	16.4	99.0	AHC	488.1	33.2	14.3	57.4
	481.2	44.0	14.6			1232.7	80.3	24.7	97.6		768.4	30.1	10.6	46.1

Land at South Tees Development Corporation
Junction Statistics

J-21

2030 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	552.6	20.7	12.3	34.1	AHB	419.2	23.0	9.6	49.2	LTC	61.5	31.9	1.4	12.2
RTA	51.4	24.9	12.2	13.1	LTB	455.0	17.2	2.0	67.0	RTC	335.6	40.8	9.7	63.6
	604.0	22.8	12.2			874.2	20.1	5.8	58.1		397.1	36.4	5.5	37.9

J-21

2030 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	555.2	20.7	12.3	34.2	LTB	410.2	22.8	9.3	48.1	LTC	59.5	31.9	1.3	11.8
AHA	50.3	24.9	12.2	12.8	AHB	447.3	16.6	1.9	65.9	AHC	328.8	40.6	9.4	62.3
	605.5	22.8	12.2			857.5	19.7	5.6	57.0		388.2	36.2	5.4	37.1

Land at South Tees Development Corporation
Junction Statistics

J-21

2030 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	741.1	23.0	19.7	43.4	AHB	404.1	23.6	10.0	44.6	LTC	182.3	38.5	5.2	35.5
RTA	76.8	26.8	19.5	19.4	LTB	491.6	20.6	2.6	73.0	RTC	543.6	97.3	34.5	100.5
	817.9	24.9	19.6	31.4		895.7	22.1	6.3	58.8		725.9	67.9	19.9	68.0

J-21

2030 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Green Lane					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	729.1	22.9	19.3	42.8	LTB	401.4	23.6	9.9	44.3	LTC	175.9	38.3	5.0	34.2
AHA	76.7	26.8	19.1	19.4	AHB	465.7	18.3	2.2	69.1	AHC	559.8	135.0	40.0	103.5
	805.8	24.9	19.2	31.1		867.1	20.9	6.1	56.7		735.7	86.6	22.5	68.9

Land at South Tees Development Corporation
Junction Statistics

J-22

2019 Base 08:00 - 09:00 AM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	699.3	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	699.3	0.0	0.0			#N/A	#N/A	#N/A	#N/A

J-22

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12
LTA	699.3	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	699.3	0.0	0.0			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2019 Base 12:30 - 13:30 IP

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	604.1	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	604.1	0.0	0.0			#N/A	#N/A	#N/A	#N/A

J-22

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12
LTA	604.1	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	604.1	0.0	0.0			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2019 Base 16:30 - 17:30 PM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	577.7	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	577.7	0.0	0.0			#N/A	#N/A	#N/A	#N/A

J-22

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12
LTA	577.7	0.0	0.0	0.0		#N/A	#N/A	#N/A	#N/A
	577.7	0.0	0.0			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2025 Do Something 08:00 - 09:00 AM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	687.2	241.7	40.2	110.1		#N/A	#N/A	#N/A	#N/A
	687.2	241.7	40.2			#N/A	#N/A	#N/A	#N/A

J-22

2025 Do Minimum 08:00 - 09:00 AM

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	688.5	243.3	40.5	110.2		#N/A	#N/A	#N/A	#N/A
	688.5	243.3	40.5			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2025 Do Something 12:30 - 13:30 IP

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	604.1	101.0	15.5	98.7		#N/A	#N/A	#N/A	#N/A
	604.1	101.0	15.5			#N/A	#N/A	#N/A	#N/A

J-22

2025 Do Minimum 12:30 - 13:30 IP

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	604.1	99.1	15.2	98.5		#N/A	#N/A	#N/A	#N/A
	604.1	99.1	15.2			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2025 Do Something 16:30 - 17:30 PM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	578.4	63.6	9.3	93.0		#N/A	#N/A	#N/A	#N/A
	578.4	63.6	9.3			#N/A	#N/A	#N/A	#N/A

J-22

2025 Do Minimum 16:30 - 17:30 PM

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	578.4	61.1	8.9	92.4		#N/A	#N/A	#N/A	#N/A
	578.4	61.1	8.9			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2030 Do Something 08:00 - 09:00 AM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	677.2	238.6	39.1	109.9		#N/A	#N/A	#N/A	#N/A
	677.2	238.6	39.1			#N/A	#N/A	#N/A	#N/A

J-22

2030 Do Minimum 08:00 - 09:00 AM

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	683.1	248.1	40.9	110.5		#N/A	#N/A	#N/A	#N/A
	683.1	248.1	40.9			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2030 Do Something 12:30 - 13:30 IP

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	612.1	124.8	19.3	101.1		#N/A	#N/A	#N/A	#N/A
	612.1	124.8	19.3			#N/A	#N/A	#N/A	#N/A

J-22

2030 Do Minimum 12:30 - 13:30 IP

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	612.1	119.7	18.5	100.6		#N/A	#N/A	#N/A	#N/A
	612.1	119.7	18.5			#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-22

2030 Do Something 16:30 - 17:30 PM

A: A66 Northbound Merge (Tees Flyover)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
AHA	587.5	81.9	12.2	96.1		#N/A	#N/A	#N/A	#N/A
	587.5	81.9	12.2	96.1		#N/A	#N/A	#N/A	#N/A

J-22

2030 Do Minimum 16:30 - 17:30 PM

A: A66 Northbound Merge (Tees Flyover)					0				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13
LTA	587.5	74.7	11.1	95.0		#N/A	#N/A	#N/A	#N/A
	587.5	74.7	11.1	95.0		#N/A	#N/A	#N/A	#N/A

Land at South Tees Development Corporation
Junction Statistics

J-23

2019 Base 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	408.3	58.6	19.5	77.5	LTB	56.6	71.8	15.3	57.8	LTC	368.4	65.9	26.0	80.4	AHD	473.3	33.9	17.1	56.6
AHA	222.1	42.9	8.0	34.7	AHB	284.7	64.1	15.3	57.8	RTC	143.6	68.5	25.4	77.7	RTD	264.4	39.4	8.0	57.0
	630.5	50.8	13.7			341.3	67.9	15.3	57.8		511.9	67.2	25.7	79.1		737.7	36.6	12.5	56.8

J-23

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	408.3	58.6	19.5	77.5	LTB	56.6	71.8	15.3	71.8	LTC	368.4	65.9	26.0	65.9	LTD	473.3	33.9	17.1	33.9
AHA	222.1	42.9	8.0	34.7	AHB	284.7	64.1	15.3	64.1	AHC	143.6	68.5	25.4	68.5	AHD	264.4	39.4	8.0	39.4
	630.5	50.8	13.7			341.3	67.9	15.3	67.9		511.9	67.2	25.7	67.2		737.7	36.6	12.5	36.6

Land at South Tees Development Corporation
Junction Statistics

J-23

2019 Base 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	330.4	56.5	14.0	80.4	LTB	131.0	57.3	13.4	52.6	LTC	223.8	50.6	11.2	49.9	AHD	203.4	30.0	5.6	29.7
AHA	273.8	44.7	9.5	54.8	AHB	247.6	49.5	13.4	52.6	RTC	88.6	53.6	11.1	48.2	RTD	216.7	38.1	6.0	50.4
	604.2	50.6	11.8			378.6	53.4	13.4	52.6		312.4	52.1	11.1	49.0		420.1	34.0	5.8	40.0

J-23

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	330.4	56.5	14.0	80.4	LTB	131.0	57.3	13.4	57.3	LTC	223.8	50.6	11.2	50.6	LTD	203.4	30.0	5.6	30.0
AHA	273.8	44.7	9.5	54.8	AHB	247.6	49.5	13.4	49.5	AHC	88.6	53.6	11.1	53.6	AHD	216.7	38.1	6.0	38.1
	604.2	50.6	11.8			378.6	53.4	13.4	53.4		312.4	52.1	11.1	52.1		420.1	34.0	5.8	34.0

Land at South Tees Development Corporation
Junction Statistics

J-23

2019 Base 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	514.3	129.5	42.6	102.0	LTB	89.2	95.7	40.6	98.1	LTC	281.0	66.4	18.7	64.2	AHD	280.5	28.0	8.6	31.8
AHA	351.7	50.6	15.0	57.3	AHB	465.9	87.9	40.6	98.1	RTC	110.2	69.3	18.5	62.0	RTD	163.0	30.7	4.6	31.7
	866.0	90.1	28.8			555.0	91.8	40.6	98.1		391.1	67.9	18.6	63.1		443.4	29.4	6.6	31.8

J-23

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	514.3	129.5	42.6	102.0	LTB	89.2	95.7	40.6	95.7	LTC	281.0	66.4	18.7	66.4	LTD	280.5	28.0	8.6	28.0
AHA	351.7	50.6	15.0	57.3	AHB	465.9	87.9	40.6	87.9	AHC	110.2	69.3	18.5	69.3	AHD	163.0	30.7	4.6	30.7
	866.0	90.1	28.8			555.0	91.8	40.6	91.8		391.1	67.9	18.6	67.9		443.4	29.4	6.6	29.4

Land at South Tees Development Corporation
Junction Statistics

J-23

2025 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	436.9	61.2	22.2	82.9	LTB	63.4	72.1	16.0	59.7	LTC	384.0	68.0	30.6	87.2	AHD	566.6	36.9	22.5	67.7
AHA	246.3	43.5	9.0	38.4	AHB	289.6	64.3	16.0	59.7	RTC	171.1	70.1	29.3	84.3	RTD	358.3	52.0	11.6	77.7
	683.2	52.4	15.6			353.0	68.2	16.0	59.7		555.1	69.0	30.0	85.8		924.9	44.5	17.0	72.7

J-23

2025 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	443.0	61.9	22.9	84.1	LTB	63.5	72.1	16.1	60.1	LTC	378.3	67.9	30.4	87.0	LTD	559.3	36.6	22.0	66.8
AHA	247.1	43.6	9.1	38.6	AHB	291.8	64.4	16.1	60.1	AHC	175.0	70.0	29.2	84.0	AHD	353.4	51.1	11.4	76.8
	690.1	52.8	16.0			355.3	68.3	16.1	60.1		553.4	69.0	29.8	85.5		912.7	43.9	16.7	71.8

Land at South Tees Development Corporation
Junction Statistics

J-23

2025 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	323.5	55.8	13.5	78.7	LTB	127.9	58.5	16.6	62.5	LTC	238.7	51.1	12.3	54.2	AHD	233.9	30.7	6.6	34.2
AHA	346.4	47.5	13.1	69.3	AHB	322.0	50.8	16.6	62.5	RTC	100.7	54.1	12.2	52.3	RTD	272.4	43.2	7.9	63.7
	669.9	51.6	13.3			449.9	54.6	16.6	62.5		339.4	52.6	12.3	53.3		506.3	36.9	7.2	48.9

J-23

2025 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	315.3	55.1	12.9	76.7	LTB	129.5	58.5	16.4	61.9	LTC	234.5	51.1	12.2	53.8	LTD	232.4	30.6	6.5	33.9
AHA	350.5	47.7	13.4	70.1	AHB	316.4	50.7	16.4	61.9	AHC	102.5	54.0	12.1	52.0	AHD	270.0	42.9	7.8	63.1
	665.7	51.4	13.1			445.9	54.6	16.4	61.9		336.9	52.5	12.2	52.9		502.4	36.8	7.2	48.5

Land at South Tees Development Corporation
Junction Statistics

J-23

2025 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	516.6	135.3	43.4	102.4	LTB	83.4	96.0	40.7	98.2	LTC	305.4	67.2	20.6	68.8	AHD	271.9	27.8	8.3	30.9
AHA	445.7	54.7	21.2	72.7	AHB	471.9	88.2	40.7	98.2	RTC	113.9	70.0	20.3	66.5	RTD	209.0	33.0	6.1	41.1
	962.3	95.0	32.3			555.3	92.1	40.7	98.2		419.3	68.6	20.4	67.7		480.9	30.4	7.2	36.0

J-23

2025 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	517.5	137.9	43.7	102.6	LTB	84.6	98.5	41.4	98.7	LTC	307.4	67.2	20.7	69.1	LTD	267.8	27.8	8.2	30.4
AHA	447.9	54.8	21.3	73.0	AHB	473.4	90.7	41.4	98.7	AHC	113.5	70.0	20.4	66.8	AHD	210.8	33.1	6.1	41.5
	965.4	96.3	32.5			558.0	94.6	41.4	98.7		420.8	68.6	20.5	67.9		478.6	30.4	7.2	35.9

Land at South Tees Development Corporation
Junction Statistics

J-23

2030 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	464.1	65.0	25.6	88.1	LTB	63.7	72.3	16.4	61.2	LTC	448.7	78.3	41.7	96.9	AHD	698.3	43.5	33.5	83.4
AHA	263.6	44.0	9.8	41.1	AHB	298.0	64.5	16.4	61.2	RTC	168.2	75.2	38.2	93.7	RTD	370.4	55.4	12.1	80.8
	727.7	54.5	17.7			361.7	68.4	16.4	61.2		616.9	76.8	40.0	95.3		1068.7	49.5	22.8	82.1

J-23

2030 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	463.1	64.8	25.5	87.9	LTB	64.5	72.3	16.4	61.2	LTC	432.9	73.8	38.6	94.9	LTD	670.0	41.7	30.6	80.1
AHA	263.9	44.0	9.8	41.2	AHB	296.9	64.5	16.4	61.2	AHC	171.0	73.4	35.8	91.7	AHD	366.3	54.4	11.9	79.9
	727.1	54.4	17.6			361.4	68.4	16.4	61.2		603.8	73.6	37.2	93.3		1036.3	48.0	21.3	80.0

Land at South Tees Development Corporation
Junction Statistics

J-23

2030 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	343.2	57.9	15.2	83.5	LTB	135.7	58.9	17.5	65.0	LTC	247.9	51.3	12.8	56.1	AHD	252.4	31.1	7.2	36.9
AHA	370.0	48.6	14.6	74.0	AHB	332.6	51.1	17.5	65.0	RTC	103.8	54.3	12.7	54.2	RTD	283.6	44.7	8.3	66.6
	713.2	53.3	14.9			468.2	55.0	17.5	65.0		351.7	52.8	12.8	55.2		536.0	37.9	7.7	51.7

J-23

2030 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	334.0	56.8	14.3	81.3	LTB	137.3	59.0	17.8	65.9	LTC	247.3	51.3	12.8	56.0	LTD	252.3	31.0	7.2	36.8
AHA	366.5	48.5	14.4	73.3	AHB	337.2	51.2	17.8	65.9	AHC	103.5	54.3	12.7	54.1	AHD	280.5	44.2	8.2	65.8
	700.5	52.6	14.3			474.5	55.1	17.8	65.9		350.8	52.8	12.8	55.1		532.8	37.6	7.7	51.3

Land at South Tees Development Corporation
Junction Statistics

J-23

2030 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	517.5	137.9	43.7	102.6	LTB	82.8	96.1	40.7	98.2	LTC	316.8	67.6	21.6	71.3	AHD	295.1	28.3	9.2	33.5
AHA	486.2	57.1	24.6	79.3	AHB	472.7	88.4	40.7	98.2	RTC	117.3	70.3	21.3	68.9	RTD	215.3	33.4	6.3	42.5
	1003.8	97.5	34.1	90.9		555.5	92.3	40.7	98.2		434.1	69.0	21.4	70.1		510.4	30.9	7.7	38.0

J-23

2030 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Ayresome Street					C: Ayresome Green Lane					D: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	521.0	147.3	45.0	103.3	LTB	82.6	99.7	41.8	98.9	LTC	316.2	67.6	21.6	71.3	LTD	288.9	28.2	8.9	32.8
AHA	482.3	56.8	24.2	78.6	AHB	476.5	92.0	41.8	98.9	AHC	117.8	70.3	21.2	68.8	AHD	215.8	33.4	6.3	42.6
	1003.2	102.1	34.6	91.0		559.2	95.8	41.8	98.9		434.0	69.0	21.4	70.1		504.7	30.8	7.6	37.7

Land at South Tees Development Corporation
Junction Statistics

J-24

2019 Base 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	622.0	16.5	17.0	33.3	LTB	128.5	62.7	13.4	83.1	AHC	1008.6	35.3	41.0	68.1
RTA	142.6	20.1	16.8	31.9	RTB	139.8	63.1	13.4	83.1	LTC	121.0	43.3	41.0	68.1
	764.6	18.3	16.9			268.4	62.9	13.4	83.1		1129.6	39.3	41.0	68.1

J-24

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	622.0	16.5	17.0	33.3	LTB	128.5	62.7	13.4	62.7	LTC	1008.6	35.3	41.0	35.3
AHA	142.6	20.1	16.8	31.9	AHB	139.8	63.1	13.4	63.1	AHC	121.0	43.3	41.0	43.3
	764.6	18.3	16.9			268.4	62.9	13.4	62.9		1129.6	39.3	41.0	39.3

Land at South Tees Development Corporation
Junction Statistics

J-24

2019 Base 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	739.5	16.2	14.8	39.0	LTB	46.4	44.9	2.6	45.0	AHC	665.6	23.8	15.5	44.1
RTA	52.0	16.5	14.7	13.1	RTB	39.7	45.3	2.6	45.0	LTC	23.0	31.7	15.5	44.1
	791.5	16.3	14.7			86.1	45.1	2.6	45.0		688.7	27.7	15.5	44.1

J-24

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	739.5	16.2	14.8	39.0	LTB	46.4	44.9	2.6	44.9	LTC	665.6	23.8	15.5	23.8
AHA	52.0	16.5	14.7	13.1	AHB	39.7	45.3	2.6	45.3	AHC	23.0	31.7	15.5	31.7
	791.5	16.3	14.7			86.1	45.1	2.6	45.1		688.7	27.7	15.5	27.7

J-24

2019 Base 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	978.0	17.3	24.8	45.9	LTB	84.5	54.3	6.4	54.0	AHC	694.2	27.1	20.7	42.4
RTA	78.8	16.9	24.5	17.5	RTB	77.6	54.7	6.4	54.0	LTC	45.9	35.1	20.7	42.4
	1056.8	17.1	24.7			162.1	54.5	6.4	54.0		740.1	31.1	20.7	42.4

J-24

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	978.0	17.3	24.8	45.9	LTB	84.5	54.3	6.4	54.3	LTC	694.2	27.1	20.7	27.1
AHA	78.8	16.9	24.5	17.5	AHB	77.6	54.7	6.4	54.7	AHC	45.9	35.1	20.7	35.1
	1056.8	17.1	24.7			162.1	54.5	6.4	54.5		740.1	31.1	20.7	31.1

Land at South Tees Development Corporation
Junction Statistics

J-24

2025 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	681.7	15.1	18.6	33.3	LTB	98.1	84.3	19.1	95.1	AHC	1189.5	34.1	51.6	69.7
RTA	139.8	19.1	18.5	33.4	RTB	176.3	84.7	19.1	95.1	LTC	131.3	42.1	51.6	69.7
	821.5	17.1	18.5			274.4	84.5	19.1	95.1		1320.8	38.1	51.6	69.7

J-24

2025 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	683.9	15.2	18.9	33.6	LTB	92.4	84.0	19.0	95.0	LTC	1197.0	34.1	51.7	69.8
AHA	144.6	19.4	18.7	34.5	AHB	181.6	84.3	19.0	95.0	AHC	126.3	42.1	51.7	69.8
	828.5	17.3	18.8			274.0	84.2	19.0	95.0		1323.3	38.1	51.7	69.8

Land at South Tees Development Corporation
Junction Statistics

J-24

2025 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	811.4	16.6	16.6	42.5	LTB	32.3	45.1	2.8	47.1	AHC	786.7	24.8	19.3	52.1
RTA	52.0	16.6	16.4	13.4	RTB	57.9	45.5	2.8	47.1	LTC	27.8	32.8	19.3	52.1
	863.3	16.6	16.5			90.3	45.3	2.8	47.1		814.5	28.8	19.3	52.1

J-24

2025 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	812.8	16.6	16.6	42.5	LTB	32.1	45.1	2.7	47.0	LTC	774.2	24.7	18.9	51.3
AHA	51.7	16.6	16.4	13.3	AHB	57.9	45.5	2.7	47.0	AHC	27.8	32.7	18.9	51.3
	864.4	16.6	16.5			90.0	45.3	2.7	47.0		802.0	28.7	18.9	51.3

Land at South Tees Development Corporation
Junction Statistics

J-24

2025 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	1134.4	18.4	30.4	52.8	LTB	51.3	54.6	6.7	56.0	AHC	749.9	27.6	22.9	45.9
RTA	79.9	17.0	29.9	18.0	RTB	116.8	54.9	6.7	56.0	LTC	49.9	35.6	22.9	45.9
	1214.3	17.7	30.2			168.1	54.8	6.7	56.0		799.8	31.6	22.9	45.9

J-24

2025 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1130.9	18.3	30.3	52.6	LTB	51.4	54.6	6.6	55.9	LTC	741.7	27.6	22.6	45.4
AHA	79.6	17.0	29.7	17.9	AHB	116.6	54.9	6.6	55.9	AHC	49.9	35.6	22.6	45.4
	1210.5	17.6	30.0			168.0	54.8	6.6	55.9		791.5	31.6	22.6	45.4

J-24

2030 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	678.3	15.2	18.8	33.6	LTB	33.0	98.2	21.5	98.3	AHC	1239.7	34.9	55.0	72.3
RTA	150.1	19.8	18.6	36.2	RTB	250.8	98.6	21.5	98.3	LTC	130.5	42.9	55.0	72.3
	828.4	17.5	18.7			283.8	98.4	21.5	98.3		1370.1	38.9	55.0	72.3

J-24

2030 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	675.1	15.1	18.7	33.3	LTB	40.2	96.2	21.3	98.0	LTC	1255.2	35.1	56.2	73.2
AHA	148.0	19.7	18.5	35.8	AHB	242.6	96.6	21.3	98.0	AHC	132.1	43.1	56.2	73.2
	823.1	17.4	18.6			282.9	96.4	21.3	98.0		1387.3	39.1	56.2	73.2

Land at South Tees Development Corporation
Junction Statistics

J-24

2030 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	836.5	16.7	17.3	43.8	LTB	29.4	45.3	2.9	49.7	AHC	818.1	25.1	20.4	54.3
RTA	54.3	16.7	17.1	14.1	RTB	65.9	45.7	2.9	49.7	LTC	30.2	33.1	20.4	54.3
	890.8	16.7	17.2			95.2	45.5	2.9	49.7		848.3	29.1	20.4	54.3

J-24

2030 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	832.9	16.7	17.2	43.6	LTB	32.3	45.3	2.9	49.4	LTC	799.9	24.9	19.8	53.1
AHA	53.6	16.6	17.0	13.9	AHB	62.3	45.7	2.9	49.4	AHC	30.2	32.9	19.8	53.1
	886.5	16.7	17.1			94.6	45.5	2.9	49.4		830.0	28.9	19.8	53.1

J-24

2030 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
AHA	1177.9	18.7	32.2	54.8	LTB	55.6	54.9	7.0	58.4	AHC	798.0	28.1	24.8	48.8
RTA	83.1	17.1	31.6	18.9	RTB	119.7	55.3	7.0	58.4	LTC	53.2	36.1	24.8	48.8
	1261.0	17.9	31.9	36.9		175.3	55.1	7.0	58.4		851.2	32.1	24.8	48.8

J-24

2030 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: Lodore Grove					C: A1032 Acklam Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1168.4	18.6	31.8	54.4	LTB	55.7	54.9	7.0	58.3	LTC	767.3	27.8	23.7	47.0
AHA	82.3	17.1	31.2	18.6	AHB	119.3	55.3	7.0	58.3	AHC	53.2	35.8	23.7	47.0
	1250.6	17.8	31.5	36.5		175.0	55.1	7.0	58.3		820.5	31.8	23.7	47.0

Land at South Tees Development Corporation
Junction Statistics

J-25

2019 Base 08:00 - 09:00 AM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	37.9	10.5	0.1	6.4	AHC	417.1	1.1	0.0	0.0
AHA	512.0	1.1	0.0	0.0	RTB	0.0	-1.0	-1.0	-1.0	RTC	157.8	34.1	0.4	28.6
	512.0	0.0	0.0			37.9	4.8	0.0	2.7		574.9	17.6	0.2	14.3

J-25

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	0.0	-1.0	-1.0	-1.0	LTB	37.9	10.5	0.1	10.5	LTC	417.1	1.1	0.0	1.1
AHA	512.0	1.1	0.0	0.0	AHB	0.0	-1.0	-1.0	-1.0	AHC	157.8	34.1	0.4	34.1
	512.0	0.0	0.0			37.9	4.8	0.0	4.8		574.9	17.6	0.2	17.6

Land at South Tees Development Corporation
Junction Statistics

J-25

2019 Base 12:30 - 13:30 IP

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	9.1	10.1	0.0	1.5	AHC	483.9	1.1	0.0	0.0
AHA	508.5	1.1	0.0	0.0	RTB	0.0	-1.0	-1.0	-1.0	RTC	117.9	33.2	0.3	21.3
	508.5	0.0	0.0			9.1	4.5	0.0	0.3		601.8	17.1	0.1	10.7

J-25

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	0.0	-1.0	-1.0	-1.0	LTB	9.1	10.1	0.0	10.1	LTC	483.9	1.1	0.0	1.1
AHA	508.5	1.1	0.0	0.0	AHB	0.0	-1.0	-1.0	-1.0	AHC	117.9	33.2	0.3	33.2
	508.5	0.0	0.0			9.1	4.5	0.0	4.5		601.8	17.1	0.1	17.1

Land at South Tees Development Corporation
Junction Statistics

J-25

2019 Base 16:30 - 17:30 PM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	49.0	11.5	0.1	8.9	AHC	537.7	1.1	0.0	0.0
AHA	729.3	1.1	0.0	0.0	RTB	0.0	-1.0	-1.0	-1.0	RTC	70.1	33.4	0.2	14.2
	729.3	0.0	0.0			49.0	5.2	0.0	3.9		607.8	17.2	0.1	7.1

J-25

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	0.0	-1.0	-1.0	-1.0	LTB	49.0	11.5	0.1	11.5	LTC	537.7	1.1	0.0	1.1
AHA	729.3	1.1	0.0	0.0	AHB	0.0	-1.0	-1.0	-1.0	AHC	70.1	33.4	0.2	33.4
	729.3	0.0	0.0			49.0	5.2	0.0	5.2		607.8	17.2	0.1	17.2

Land at South Tees Development Corporation
Junction Statistics

J-25

2025 Do Something 08:00 - 09:00 AM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	27.6	15.0	0.7	4.7	AHC	766.9	1.1	0.0	0.0
AHA	533.0	1.1	0.0	0.0	RTB	185.0	66.3	3.1	77.8	RTC	158.7	34.2	0.4	29.1
	533.0	0.0	0.0			212.5	40.7	1.9	41.3		925.6	17.6	0.2	14.5

J-25

2025 Do Minimum 08:00 - 09:00 AM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	27.5	15.0	0.7	4.7	LTC	767.1	1.1	0.0	0.0
AHA	536.4	1.1	0.0	0.0	AHB	185.0	67.2	3.2	78.1	AHC	158.7	34.2	0.4	29.1
	536.4	0.0	0.0			212.5	41.1	1.9	41.4		925.8	17.7	0.2	14.6

Land at South Tees Development Corporation
Junction Statistics

J-25

2025 Do Something 12:30 - 13:30 IP

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	19.0	11.5	0.2	3.2	AHC	529.1	1.1	0.0	0.0
AHA	500.0	1.1	0.0	0.0	RTB	78.1	19.6	0.3	25.7	RTC	118.3	33.2	0.3	21.3
	500.0	0.0	0.0			97.1	15.5	0.3	14.4		647.4	17.1	0.1	10.7

J-25

2025 Do Minimum 12:30 - 13:30 IP

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	19.0	11.5	0.2	3.2	LTC	527.8	1.1	0.0	0.0
AHA	505.4	1.1	0.0	0.0	AHB	78.1	19.6	0.3	25.8	AHC	118.3	33.2	0.3	21.4
	505.4	0.0	0.0			97.1	15.6	0.3	14.5		646.2	17.1	0.1	10.7

Land at South Tees Development Corporation
Junction Statistics

J-25

2025 Do Something 16:30 - 17:30 PM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	49.3	13.0	0.3	8.9	AHC	636.5	1.1	0.0	0.0
AHA	728.7	1.1	0.0	0.0	RTB	63.9	20.1	0.5	26.4	RTC	70.3	33.4	0.2	14.2
	728.7	0.0	0.0			113.2	16.5	0.4	17.6		706.8	17.2	0.1	7.1

J-25

2025 Do Minimum 16:30 - 17:30 PM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	49.3	13.0	0.3	8.9	LTC	636.4	1.1	0.0	0.0
AHA	730.5	1.1	0.0	0.0	AHB	63.9	20.1	0.5	26.4	AHC	70.3	33.4	0.2	14.3
	730.5	0.0	0.0			113.2	16.5	0.4	17.7		706.8	17.3	0.1	7.1

Land at South Tees Development Corporation
Junction Statistics

J-25

2030 Do Something 08:00 - 09:00 AM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	37.1	15.2	0.7	6.3	AHC	915.2	1.1	0.0	0.0
AHA	540.3	1.1	0.0	0.0	RTB	179.1	111.5	5.1	87.8	RTC	161.7	34.3	0.4	29.7
	540.3	0.0	0.0			216.1	63.4	2.9	47.1		1076.9	17.7	0.2	14.9

J-25

2030 Do Minimum 08:00 - 09:00 AM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	37.5	15.3	0.7	6.4	LTC	909.0	1.1	0.0	0.0
AHA	549.4	1.1	0.0	0.0	AHB	178.6	111.9	5.1	87.9	AHC	161.6	34.4	0.4	29.8
	549.4	0.0	0.0			216.1	63.6	2.9	47.1		1070.6	17.7	0.2	14.9

Land at South Tees Development Corporation
Junction Statistics

J-25

2030 Do Something 12:30 - 13:30 IP

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	19.4	11.7	0.2	3.3	AHC	559.0	1.1	0.0	0.0
AHA	533.4	1.1	0.0	0.0	RTB	79.4	20.7	0.4	27.4	RTC	120.6	33.4	0.3	22.1
	533.4	0.0	0.0			98.8	16.2	0.3	15.3		679.7	17.2	0.1	11.0

J-25

2030 Do Minimum 12:30 - 13:30 IP

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	19.4	11.7	0.2	3.3	LTC	557.8	1.1	0.0	0.0
AHA	532.6	1.1	0.0	0.0	AHB	79.4	20.7	0.4	27.4	AHC	120.6	33.4	0.3	22.1
	532.6	0.0	0.0			98.8	16.2	0.3	15.3		678.4	17.2	0.1	11.0

Land at South Tees Development Corporation
Junction Statistics

J-25

2030 Do Something 16:30 - 17:30 PM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	50.1	13.2	0.3	9.2	AHC	666.5	1.1	0.0	0.0
AHA	764.7	1.1	0.0	0.0	RTB	65.1	21.3	0.6	28.5	RTC	71.7	33.7	0.2	14.8
	764.7	0.0	0.0	0.0		115.2	17.3	0.4	18.8		738.3	17.4	0.1	7.4

J-25

2030 Do Minimum 16:30 - 17:30 PM

A: A1043 Nunthorpe Bypass (East)					B: Unamed Minor Access Road					C: A1043 Nunthorpe Bypass (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.0	-1.0	-1.0	-1.0	LTB	50.1	13.3	0.3	9.2	LTC	666.4	1.1	0.0	0.0
AHA	768.3	1.1	0.0	0.0	AHB	65.1	21.4	0.6	28.6	AHC	71.7	33.7	0.2	14.8
	768.3	0.0	0.0	0.0		115.2	17.3	0.4	18.9		738.1	17.4	0.1	7.4

J-26

2019 Base 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	70.9	19.1	24.0	71.0	LTB	0.0	-1.0	-1.0	-1.0	LTC	20.0	22.0	12.6	49.6	LTD	294.4	47.8	11.2	70.9
AHA	830.8	19.3	24.0	71.0	AHB	1.0	42.3	2.3	17.4	AHC	501.1	21.5	12.6	49.6	AHD	16.8	50.7	11.8	70.7
RTA	113.5	12.3	1.6	22.2	RTB	78.5	40.7	2.3	17.6	RTC	22.4	17.0	0.4	8.4	RTD	2.5	41.9	11.8	0.7
	1015.1	16.9	16.5			79.5	27.3	1.2	11.3		543.5	20.2	8.5	35.9		313.7	46.8	11.6	47.5

J-26

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	70.9	19.1	24.0	71.0	LTB	0.0	-1.0	-1.0	-1.0	LTC	20.0	22.0	12.6	22.0	LTD	294.4	47.8	11.2	47.8
AHA	830.8	19.3	24.0	71.0	AHB	1.0	42.3	2.3	42.3	AHC	501.1	21.5	12.6	21.5	AHD	16.8	50.7	11.8	50.7
RTA	113.5	12.3	1.6	22.2	RTB	78.5	40.7	2.3	40.7	RTC	22.4	17.0	0.4	17.0	RTD	2.5	41.9	11.8	41.9
	1015.1	16.9	16.5			79.5	27.3	1.2	27.3		543.5	20.2	8.5	20.2		313.7	46.8	11.6	46.8

J-26

2019 Base 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	32.7	14.1	11.3	54.8	LTB	0.0	-1.0	-1.0	-1.0	LTC	28.9	25.8	17.7	74.3	LTD	180.5	33.8	5.5	49.1
AHA	636.4	14.2	11.3	54.8	AHB	6.7	32.8	1.0	10.6	AHC	663.0	25.3	17.7	74.3	AHD	27.1	36.9	5.5	49.1
RTA	95.7	10.6	1.1	17.0	RTB	41.1	30.7	1.0	9.4	RTC	33.4	17.0	0.5	11.6	RTD	7.4	33.5	5.5	2.2
	764.8	13.0	7.9			47.9	20.8	0.4	6.3		725.4	22.7	11.9	53.4		215.1	34.7	5.5	33.5

J-26

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	32.7	14.1	11.3	54.8	LTB	0.0	-1.0	-1.0	-1.0	LTC	28.9	25.8	17.7	25.8	LTD	180.5	33.8	5.5	33.8
AHA	636.4	14.2	11.3	54.8	AHB	6.7	32.8	1.0	32.8	AHC	663.0	25.3	17.7	25.3	AHD	27.1	36.9	5.5	36.9
RTA	95.7	10.6	1.1	17.0	RTB	41.1	30.7	1.0	30.7	RTC	33.4	17.0	0.5	17.0	RTD	7.4	33.5	5.5	33.5
	764.8	13.0	7.9			47.9	20.8	0.4	20.8		725.4	22.7	11.9	22.7		215.1	34.7	5.5	34.7

J-26

2019 Base 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	46.2	18.3	23.7	69.2	LTB	0.0	-1.0	-1.0	-1.0	LTC	30.2	24.1	19.4	63.1	LTD	219.7	49.5	10.7	65.7
AHA	853.0	18.4	23.7	69.2	AHB	7.5	44.3	1.3	10.1	AHC	656.7	23.7	19.4	63.1	AHD	56.9	52.6	10.7	65.7
RTA	134.9	12.7	1.9	27.4	RTB	36.6	42.2	1.3	8.6	RTC	24.3	16.5	0.4	9.0	RTD	1.8	44.7	10.7	0.5
	1034.1	16.5	16.5			44.1	28.5	0.6	5.9		711.2	21.4	13.1	45.1		278.3	48.9	10.7	44.0

J-26

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	46.2	18.3	23.7	69.2	LTB	0.0	-1.0	-1.0	-1.0	LTC	30.2	24.1	19.4	24.1	LTD	219.7	49.5	10.7	49.5
AHA	853.0	18.4	23.7	69.2	AHB	7.5	44.3	1.3	44.3	AHC	656.7	23.7	19.4	23.7	AHD	56.9	52.6	10.7	52.6
RTA	134.9	12.7	1.9	27.4	RTB	36.6	42.2	1.3	42.2	RTC	24.3	16.5	0.4	16.5	RTD	1.8	44.7	10.7	44.7
	1034.1	16.5	16.5			44.1	28.5	0.6	28.5		711.2	21.4	13.1	21.4		278.3	48.9	10.7	48.9

J-26

2025 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	72.0	19.5	24.7	72.1	LTB	0.0	-1.0	-1.0	-1.0	LTC	40.9	23.6	16.1	58.5	LTD	366.1	55.3	17.1	88.2
AHA	837.8	19.6	24.7	72.1	AHB	1.8	42.9	3.1	22.8	AHC	571.3	32.3	16.1	58.5	AHD	16.0	56.4	17.1	85.9
RTA	120.6	12.9	1.7	24.2	RTB	102.5	41.2	3.1	21.5	RTC	23.6	17.1	0.4	8.9	RTD	2.2	37.9	17.1	0.5
	1030.4	17.3	17.0			104.3	27.7	1.7	14.4		635.8	24.3	10.9	42.0		384.3	49.9	17.1	58.2

J-26

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	72.0	19.5	24.6	72.1	LTB	0.0	-1.0	-1.0	-1.0	LTC	44.0	23.3	15.5	57.0	LTD	370.5	56.3	17.7	89.3
AHA	836.8	19.6	24.6	72.1	AHB	1.8	42.9	3.2	23.2	AHC	552.7	32.0	15.5	57.0	AHD	16.9	57.1	17.7	87.0
RTA	120.3	12.9	1.7	24.1	RTB	104.5	41.3	3.1	21.9	RTC	22.6	17.0	0.4	8.5	RTD	1.7	37.9	17.7	0.4
	1029.1	17.3	17.0			106.3	27.7	1.8	14.7		619.4	24.1	10.5	40.9		389.1	50.4	17.7	58.9

J-26

2025 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	33.4	13.1	8.9	47.2	LTB	0.0	-1.0	-1.0	-1.0	LTC	37.0	25.7	17.5	74.2	LTD	220.5	35.6	7.5	62.2
AHA	538.5	13.3	8.9	47.2	AHB	9.9	32.8	1.1	11.5	AHC	651.1	34.3	17.5	74.2	AHD	26.7	38.8	7.5	62.2
RTA	98.7	10.9	1.1	17.5	RTB	42.2	30.6	1.1	8.8	RTC	34.1	17.0	0.5	11.5	RTD	27.2	29.9	7.5	5.5
	670.7	12.5	6.3			52.0	20.8	0.4	6.4		722.2	25.7	11.9	53.3		274.4	34.8	7.5	43.3

J-26

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	33.4	12.9	8.2	44.7	LTB	0.0	-1.0	-1.0	-1.0	LTC	37.0	25.7	17.5	74.2	LTD	220.3	35.6	7.4	62.1
AHA	508.4	13.0	8.2	44.7	AHB	9.9	32.8	1.1	11.5	AHC	651.5	34.4	17.5	74.2	AHD	26.7	38.8	7.4	62.1
RTA	98.5	10.9	1.1	17.5	RTB	42.1	30.6	1.1	8.7	RTC	34.1	16.9	0.5	11.3	RTD	27.2	29.9	7.4	5.5
	640.3	12.3	5.9			52.0	20.8	0.4	6.4		722.6	25.7	11.9	53.3		274.1	34.8	7.4	43.2

Land at South Tees Development Corporation
Junction Statistics

J-26

2025 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	47.1	17.8	22.0	66.9	LTB	0.0	-1.0	-1.0	-1.0	LTC	28.4	23.8	18.7	61.8	LTD	285.7	53.6	15.0	80.6
AHA	816.3	17.9	22.0	66.9	AHB	8.6	44.4	1.4	10.5	AHC	642.1	32.4	18.7	61.8	AHD	56.3	56.8	15.0	80.6
RTA	145.7	13.3	2.1	29.5	RTB	37.0	42.1	1.4	8.1	RTC	24.9	16.5	0.4	9.1	RTD	1.8	40.7	15.0	0.4
	1009.1	16.3	15.4			45.6	28.5	0.6	5.9		695.5	24.3	12.6	44.2		343.9	50.4	15.0	53.8

J-26

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	47.0	17.6	21.7	66.5	LTB	0.0	-1.0	-1.0	-1.0	LTC	28.3	23.8	18.7	61.8	LTD	286.1	53.6	15.0	80.6
AHA	810.4	17.8	21.7	66.5	AHB	8.6	44.4	1.4	10.5	AHC	642.5	32.5	18.7	61.8	AHD	56.3	56.8	15.0	80.6
RTA	146.8	13.3	2.1	29.7	RTB	37.0	42.1	1.4	8.1	RTC	25.1	16.5	0.4	9.1	RTD	1.8	40.7	15.0	0.4
	1004.2	16.3	15.2			45.6	28.5	0.6	5.9		695.9	24.3	12.6	44.2		344.3	50.4	15.0	53.9

Land at South Tees Development Corporation
Junction Statistics

J-26

2030 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	73.5	20.7	27.6	75.9	LTB	0.0	-1.0	-1.0	-1.0	LTC	42.2	24.4	17.8	62.0	LTD	379.4	58.7	18.9	91.4
AHA	883.3	20.8	27.6	75.9	AHB	1.8	43.1	3.4	24.5	AHC	607.2	33.0	17.8	62.0	AHD	16.6	58.7	18.7	89.0
RTA	125.4	13.1	1.8	25.5	RTB	110.2	41.4	3.3	23.1	RTC	23.9	17.1	0.4	9.2	RTD	2.0	37.9	18.7	0.4
	1082.2	18.2	19.0			112.0	27.8	1.9	15.5		673.3	24.9	12.0	44.4		398.0	51.8	18.8	60.3

J-26

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	73.5	20.5	27.1	75.2	LTB	0.0	-1.0	-1.0	-1.0	LTC	41.8	24.0	16.9	60.3	LTD	376.7	57.9	18.5	90.7
AHA	874.7	20.6	27.1	75.2	AHB	1.8	43.0	3.3	24.0	AHC	589.1	32.6	16.9	60.3	AHD	16.6	58.1	18.4	88.3
RTA	124.7	13.0	1.7	25.2	RTB	107.9	41.4	3.3	22.6	RTC	23.9	17.1	0.4	9.2	RTD	1.6	37.9	18.4	0.3
	1072.9	18.0	18.6			109.7	27.8	1.9	15.2		654.8	24.6	11.4	43.2		394.9	51.3	18.4	59.8

Land at South Tees Development Corporation
Junction Statistics

J-26

2030 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	34.2	13.6	10.0	51.0	LTB	0.0	-1.0	-1.0	-1.0	LTC	36.3	26.7	19.0	77.2	LTD	224.3	35.9	7.7	63.8
AHA	583.8	13.7	10.0	51.0	AHB	10.0	32.8	1.1	11.6	AHC	679.6	35.3	19.0	77.2	AHD	27.3	39.1	7.7	63.8
RTA	103.8	11.0	1.2	18.5	RTB	42.2	30.6	1.1	8.8	RTC	34.7	17.0	0.5	11.9	RTD	29.9	30.0	7.7	6.1
	721.7	12.8	7.1			52.3	20.8	0.4	6.5		750.7	26.3	12.8	55.4		281.5	35.0	7.7	44.5

J-26

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	34.2	13.1	8.7	46.5	LTB	0.0	-1.0	-1.0	-1.0	LTC	38.9	26.6	18.8	76.9	LTD	223.6	35.8	7.7	63.5
AHA	529.9	13.2	8.7	46.5	AHB	10.0	32.9	1.2	11.6	AHC	674.5	35.2	18.8	76.9	AHD	27.3	39.0	7.7	63.5
RTA	101.7	11.0	1.1	18.1	RTB	42.5	30.6	1.2	8.8	RTC	34.8	17.0	0.5	11.7	RTD	29.4	29.9	7.7	6.0
	665.8	12.4	6.2			52.5	20.8	0.4	6.5		748.2	26.2	12.7	55.2		280.3	34.9	7.7	44.3

J-26

2030 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	47.9	19.0	25.5	71.8	LTB	0.0	-1.0	-1.0	-1.0	LTC	31.7	24.2	19.4	63.2	LTD	299.4	55.2	16.4	84.1
AHA	878.3	19.2	25.5	71.8	AHB	8.9	44.4	1.4	10.7	AHC	654.9	32.8	19.4	63.2	AHD	58.1	58.4	16.4	84.1
RTA	166.5	14.0	2.4	33.9	RTB	37.6	42.1	1.4	8.2	RTC	25.3	16.6	0.4	9.5	RTD	1.7	40.7	16.4	0.4
	1092.7	17.4	17.8	59.1		46.5	28.5	0.6	6.0		711.9	24.5	13.1	45.3		359.2	51.4	16.4	56.2

J-26

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	48.0	18.4	23.8	69.5	LTB	0.0	-1.0	-1.0	-1.0	LTC	29.6	24.2	19.5	63.3	LTD	299.6	55.2	16.4	84.2
AHA	848.6	18.5	23.8	69.5	AHB	8.8	44.4	1.4	10.4	AHC	657.9	32.8	19.5	63.3	AHD	58.0	58.5	16.4	84.2
RTA	160.8	13.8	2.3	32.7	RTB	36.7	42.1	1.4	8.1	RTC	25.3	16.5	0.4	9.3	RTD	1.9	40.7	16.4	0.4
	1057.5	16.9	16.6	57.2		45.5	28.5	0.6	5.8		712.7	24.5	13.1	45.3		359.5	51.5	16.4	56.3

Land at South Tees Development Corporation
Junction Statistics

J-27

2019 Base 08:00 - 09:00 AM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	259.0	440.2	139.3	123.2	LTB	28.9	18.2	0.4	5.2	RTC	292.8	11.4	2.0	56.1
AHA	964.0	17.6	21.7	82.1	RTB	49.5	26.4	0.8	19.4	AHC	754.9	8.8	7.6	56.8
	1223.0	228.9	80.5			78.4	22.3	0.6	12.3		1047.7	10.1	4.8	56.5

J-27

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	259.0	440.2	139.3	123.2	LTB	28.9	18.2	0.4	18.2	LTC	292.8	11.4	2.0	11.4
AHA	964.0	17.6	21.7	82.1	AHB	49.5	26.4	0.8	26.4	AHC	754.9	8.8	7.6	8.8
	1223.0	228.9	80.5			78.4	22.3	0.6	22.3		1047.7	10.1	4.8	10.1

Land at South Tees Development Corporation
Junction Statistics

J-27

2019 Base 12:30 - 13:30 IP

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	24.2	571.4	114.4	127.9	LTB	32.8	26.7	0.9	3.9	RTC	58.3	22.9	1.4	10.0
AHA	676.8	63.2	39.0	85.3	RTB	68.4	54.0	2.7	15.0	AHC	506.0	29.7	17.1	50.2
	701.0	317.3	76.7			101.2	40.3	1.8	9.4		564.2	26.3	9.3	30.1

J-27

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	24.2	571.4	114.4	127.9	LTB	32.8	26.7	0.9	26.7	LTC	58.3	22.9	1.4	22.9
AHA	676.8	63.2	39.0	85.3	AHB	68.4	54.0	2.7	54.0	AHC	506.0	29.7	17.1	29.7
	701.0	317.3	76.7			101.2	40.3	1.8	40.3		564.2	26.3	9.3	26.3

Land at South Tees Development Corporation
Junction Statistics

J-27

2019 Base 16:30 - 17:30 PM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	20.4	615.3	132.6	129.8	LTB	118.6	30.1	3.7	13.4	RTC	161.4	26.0	4.7	25.7
AHA	724.2	73.2	49.2	86.5	RTB	349.3	74.9	21.0	73.2	AHC	579.9	31.8	22.8	53.9
	744.6	344.2	90.9			467.9	52.5	12.4	43.3		741.2	28.9	13.7	39.8

J-27

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	20.4	615.3	132.6	129.8	LTB	118.6	30.1	3.7	30.1	LTC	161.4	26.0	4.7	26.0
AHA	724.2	73.2	49.2	86.5	AHB	349.3	74.9	21.0	74.9	AHC	579.9	31.8	22.8	31.8
	744.6	344.2	90.9			467.9	52.5	12.4	52.5		741.2	28.9	13.7	28.9

Land at South Tees Development Corporation
Junction Statistics

J-27

2025 Do Something 08:00 - 09:00 AM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	53.7	582.3	180.2	131.3	LTB	61.9	17.4	0.8	11.1	RTC	546.6	25.7	4.6	73.7
AHA	1250.1	19.0	26.1	87.5	RTB	134.8	27.7	2.4	52.9	AHC	809.4	8.9	8.9	63.0
	1303.7	300.7	103.1			196.7	22.6	1.6	32.0		1356.0	17.3	6.8	68.4

J-27

2025 Do Minimum 08:00 - 09:00 AM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	72.3	586.7	181.4	131.5	LTB	62.6	17.4	0.8	11.2	LTC	527.9	24.7	4.4	71.2
AHA	1233.8	19.1	26.2	87.7	AHB	133.9	27.7	2.4	52.5	AHC	826.5	9.1	9.3	64.4
	1306.2	302.9	103.8			196.5	22.6	1.6	31.9		1354.4	16.9	6.9	67.8

Land at South Tees Development Corporation
Junction Statistics

J-27

2025 Do Something 12:30 - 13:30 IP

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	36.0	842.0	159.0	143.2	LTB	97.1	26.5	2.7	11.4	RTC	98.1	34.4	2.5	15.2
AHA	748.7	73.0	53.2	95.5	RTB	102.8	54.5	4.2	22.5	AHC	578.5	31.4	21.2	59.4
	784.8	457.5	106.1			199.9	40.5	3.4	17.0		676.6	32.9	11.9	37.3

J-27

2025 Do Minimum 12:30 - 13:30 IP

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	36.0	810.9	153.9	141.5	LTB	101.5	26.6	2.8	11.9	LTC	97.9	34.4	2.5	15.2
AHA	739.2	70.6	51.0	94.3	AHB	98.2	54.3	4.0	21.5	AHC	583.0	31.5	21.5	59.9
	775.3	440.8	102.5			199.7	40.5	3.4	16.7		680.9	33.0	12.0	37.5

Land at South Tees Development Corporation
Junction Statistics

J-27

2025 Do Something 16:30 - 17:30 PM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	16.2	879.4	178.9	144.7	LTB	155.5	29.7	5.0	17.5	RTC	279.8	40.4	8.8	41.6
AHA	814.0	85.5	66.5	96.5	RTB	381.5	76.9	24.3	80.0	AHC	625.4	33.0	26.2	60.2
	830.1	482.5	122.7			537.0	53.3	14.7	48.7		905.2	36.7	17.5	50.9

J-27

2025 Do Minimum 16:30 - 17:30 PM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	16.2	880.8	179.1	144.8	LTB	151.4	29.6	4.9	17.1	LTC	279.6	40.4	8.8	41.6
AHA	814.4	85.7	66.6	96.5	AHB	385.5	77.3	24.8	80.8	AHC	635.8	33.3	26.9	61.2
	830.6	483.3	122.9			536.9	53.5	14.8	48.9		915.4	36.8	17.9	51.4

Land at South Tees Development Corporation
Junction Statistics

J-27

2030 Do Something 08:00 - 09:00 AM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	43.2	630.3	193.7	134.0	LTB	85.4	17.7	1.1	15.3	RTC	597.3	29.6	5.3	80.8
AHA	1287.2	20.0	28.0	89.3	RTB	191.9	30.4	4.0	75.3	AHC	839.6	9.2	9.6	65.4
	1330.4	325.2	110.9			277.3	24.0	2.5	45.3		1437.0	19.4	7.5	73.1

J-27

2030 Do Minimum 08:00 - 09:00 AM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	46.2	656.4	201.1	135.4	LTB	91.8	17.7	1.2	16.5	LTC	594.2	29.4	5.3	80.5
AHA	1298.6	20.7	29.2	90.3	AHB	185.0	29.9	3.7	72.6	AHC	836.9	9.2	9.5	65.2
	1344.8	338.6	115.1			276.8	23.8	2.5	44.5		1431.1	19.3	7.4	72.8

Land at South Tees Development Corporation
Junction Statistics

J-27

2030 Do Something 12:30 - 13:30 IP

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	16.0	947.2	176.2	149.1	LTB	95.3	26.5	2.6	11.2	RTC	153.6	35.9	4.1	23.9
AHA	800.9	90.8	62.1	99.4	RTB	143.0	55.8	6.0	31.4	AHC	591.0	31.7	22.0	60.7
	816.9	519.0	119.2			238.3	41.2	4.3	21.3		744.6	33.8	13.0	42.3

J-27

2030 Do Minimum 12:30 - 13:30 IP

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	37.5	922.4	172.1	147.7	LTB	114.1	26.8	3.2	13.4	LTC	131.7	35.3	3.4	20.5
AHA	771.8	84.4	59.8	98.5	AHB	123.9	55.2	5.1	27.2	AHC	583.5	31.5	21.5	60.0
	809.3	503.4	116.0			238.0	41.0	4.1	20.3		715.2	33.4	12.5	40.2

Land at South Tees Development Corporation
Junction Statistics

J-27

2030 Do Something 16:30 - 17:30 PM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	16.7	1000.0	199.9	151.4	LTB	180.4	30.1	6.0	20.3	RTC	359.2	44.0	12.0	53.6
AHA	851.9	116.1	78.6	101.0	RTB	409.6	80.2	28.0	85.9	AHC	606.7	32.4	24.9	58.4
	868.7	558.1	139.3	126.2		590.0	55.2	17.0	53.1		965.8	38.2	18.5	56.0

J-27

2030 Do Minimum 16:30 - 17:30 PM

A: B1380 Ladgate Lane (West)					B: Alan Peacock Way					C: B1380 Ladgate Lane (East)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	17.8	987.8	197.8	150.8	LTB	175.7	30.0	5.8	19.8	LTC	357.7	43.9	11.9	53.3
AHA	847.0	111.2	77.3	100.5	AHB	414.1	80.8	28.6	86.8	AHC	612.8	32.6	25.3	59.0
	864.8	549.5	137.6	125.6		589.8	55.4	17.2	53.3		970.5	38.2	18.6	56.2

Land at South Tees Development Corporation
Junction Statistics

J-28

2019 Base 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	529.3	11.3	0.0	56.7	ALL	1464.9	16.8	0.0	86.7	LTC	233.4	1.7	0.0	0.0	ALL	492.3	11.3	0.0	57.8
AHA	261.7	4.7	0.0	14.3															
	791.0	8.0	0.0			1464.9	16.8	0.0	86.7		233.4	1.7	0.0	0.0		492.3	11.3	0.0	57.8

J-28

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	529.3	11.3	0.0	56.7	LTB	1464.9	16.8	0.0	16.8	LTC	233.4	1.7	0.0	1.7	LTD	492.3	11.3	0.0	11.3
AHA	261.7	4.7	0.0	14.3	AHB														
	791.0	8.0	0.0			1464.9	16.8	0.0	16.8		233.4	1.7	0.0	1.7		492.3	11.3	0.0	11.3

Land at South Tees Development Corporation
Junction Statistics

J-28

2019 Base 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	515.9	10.1	0.0	52.4	ALL	917.7	3.5	0.0	33.3	LTC	134.8	1.7	0.0	0.0	ALL	527.8	3.7	0.0	26.4
AHA	239.2	4.6	0.0	12.5															
	755.1	7.3	0.0			917.7	3.5	0.0	33.3		134.8	1.7	0.0	0.0		527.8	3.7	0.0	26.4

J-28

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	515.9	10.1	0.0	52.4	LTB	917.7	3.5	0.0	3.5	LTC	134.8	1.7	0.0	1.7	LTD	527.8	3.7	0.0	3.7
AHA	239.2	4.6	0.0	12.5	AHB														
	755.1	7.3	0.0			917.7	3.5	0.0	3.5		134.8	1.7	0.0	1.7		527.8	3.7	0.0	3.7

Land at South Tees Development Corporation
Junction Statistics

J-28

2019 Base 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	590.9	16.7	0.0	70.4	ALL	1124.2	13.2	0.0	78.8	LTC	204.3	1.7	0.0	0.0	ALL	749.7	49.5	0.0	93.0
AHA	694.0	5.9	0.0	40.5															
	1284.9	11.3	0.0			1124.2	13.2	0.0	78.8		204.3	1.7	0.0	0.0		749.7	49.5	0.0	93.0

J-28

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	590.9	16.7	0.0	70.4	LTB	1124.2	13.2	0.0	13.2	LTC	204.3	1.7	0.0	1.7	LTD	749.7	49.5	0.0	49.5
AHA	694.0	5.9	0.0	40.5	AHB														
	1284.9	11.3	0.0			1124.2	13.2	0.0	13.2		204.3	1.7	0.0	1.7		749.7	49.5	0.0	49.5

Land at South Tees Development Corporation
Junction Statistics

J-28

2025 Do Something 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	548.8	11.5	0.0	58.3	ALL	1537.0	26.4	0.0	92.4	LTC	243.4	1.7	0.0	0.0	ALL	531.6	12.6	0.0	62.8
AHA	277.2	4.7	0.0	15.1															
	826.0	8.1	0.0			1537.0	26.4	0.0	92.4		243.4	1.7	0.0	0.0		531.6	12.6	0.0	62.8

J-28

2025 Do Minimum 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	561.7	11.7	0.0	59.3	LTB	1528.0	22.1	0.0	90.5	LTC	261.8	1.7	0.0	0.0	LTD	504.3	11.4	0.0	58.8
AHA	247.2	4.7	0.0	13.4	AHB														
	808.8	8.2	0.0			1528.0	22.1	0.0	90.5		261.8	1.7	0.0	0.0		504.3	11.4	0.0	58.8

Land at South Tees Development Corporation
Junction Statistics

J-28

2025 Do Something 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	407.9	8.7	0.0	41.7	ALL	940.9	3.5	0.0	34.5	LTC	151.3	1.7	0.0	0.0	ALL	562.7	3.8	0.0	28.6
AHA	248.7	4.6	0.0	13.2															
	656.6	6.7	0.0			940.9	3.5	0.0	34.5		151.3	1.7	0.0	0.0		562.7	3.8	0.0	28.6

J-28

2025 Do Minimum 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	400.1	8.6	0.0	40.9	LTB	945.7	3.5	0.0	34.6	LTC	150.9	1.7	0.0	0.0	LTD	561.6	3.8	0.0	28.5
AHA	239.1	4.6	0.0	12.7	AHB														
	639.2	6.6	0.0			945.7	3.5	0.0	34.6		150.9	1.7	0.0	0.0		561.6	3.8	0.0	28.5

Land at South Tees Development Corporation
Junction Statistics

J-28

2025 Do Something 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	559.0	15.4	0.0	67.1	ALL	1169.1	16.3	0.0	83.2	LTC	223.9	1.7	0.0	0.0	ALL	796.9	146.1	0.0	104.3
AHA	691.3	6.0	0.0	41.0															
	1250.3	10.7	0.0			1169.1	16.3	0.0	83.2		223.9	1.7	0.0	0.0		796.9	146.1	0.0	104.3

J-28

2025 Do Minimum 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	532.6	14.3	0.0	63.9	LTB	1176.7	16.2	0.0	83.2	LTC	224.2	1.7	0.0	0.0	LTD	796.7	142.4	0.0	104.0
AHA	677.3	6.0	0.0	40.2	AHB														
	1209.9	10.1	0.0			1176.7	16.2	0.0	83.2		224.2	1.7	0.0	0.0		796.7	142.4	0.0	104.0

Land at South Tees Development Corporation
Junction Statistics

J-28

2030 Do Something 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	617.3	14.0	0.0	66.7	ALL	1567.6	42.6	0.0	96.6	LTC	270.8	1.7	0.0	0.0	ALL	547.2	15.6	0.0	68.7
AHA	323.8	4.8	0.0	18.0															
	941.1	9.4	0.0			1567.6	42.6	0.0	96.6		270.8	1.7	0.0	0.0		547.2	15.6	0.0	68.7

J-28

2030 Do Minimum 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	612.3	13.5	0.0	65.6	LTB	1563.0	31.0	0.0	94.1	LTC	297.8	1.7	0.0	0.0	LTD	541.1	14.0	0.0	65.8
AHA	265.3	4.7	0.0	14.6	AHB														
	877.6	9.1	0.0			1563.0	31.0	0.0	94.1		297.8	1.7	0.0	0.0		541.1	14.0	0.0	65.8

Land at South Tees Development Corporation
Junction Statistics

J-28

2030 Do Something 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	431.8	9.0	0.0	44.4	ALL	986.2	3.6	0.0	36.6	LTC	174.0	1.7	0.0	0.0	ALL	595.9	3.9	0.0	30.7
AHA	267.6	4.7	0.0	14.4															
	699.4	6.9	0.0			986.2	3.6	0.0	36.6		174.0	1.7	0.0	0.0		595.9	3.9	0.0	30.7

J-28

2030 Do Minimum 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	418.2	8.9	0.0	43.0	LTB	981.0	3.6	0.0	36.1	LTC	173.7	1.7	0.0	0.0	LTD	593.1	3.9	0.0	30.4
AHA	244.0	4.6	0.0	13.1	AHB														
	662.2	6.7	0.0			981.0	3.6	0.0	36.1		173.7	1.7	0.0	0.0		593.1	3.9	0.0	30.4

Land at South Tees Development Corporation
Junction Statistics

J-28

2030 Do Something 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	597.9	17.8	0.0	72.2	ALL	1219.3	24.0	0.0	89.2	LTC	252.7	1.7	0.0	0.0	ALL	835.0	276.1	0.0	113.0
AHA	723.3	6.2	0.0	43.5															
	1321.2	12.0	0.0	57.9		1219.3	24.0	0.0	89.2		252.7	1.7	0.0	0.0		835.0	276.1	0.0	113.0

J-28

2030 Do Minimum 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					C: A1130 Acklam Road (East)					D: A19 Northbound Off-Slip					D: A1130 Acklam Road (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	562.1	15.8	0.0	67.9	LTB	1216.1	21.5	0.0	87.8	LTC	242.8	1.7	0.0	0.0	LTD	833.1	243.6	0.0	111.0
AHA	695.2	6.1	0.0	41.8	AHB														
	1257.3	11.0	0.0	54.8		1216.1	21.5	0.0	87.8		242.8	1.7	0.0	0.0		833.1	243.6	0.0	111.0

Land at South Tees Development Corporation
Junction Statistics

J-29

2019 Base 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	371.5	21.3	4.4	20.9	ALL	2059.5	36.5	37.0	76.2	LTC	44.5	33.2	6.3	21.2	ALL	383.2	44.9	10.4	59.1
										AHC	321.1	22.7	6.3	21.2					
	371.5	21.3	4.4			2059.5	36.5	37.0	76.2		365.6	27.9	6.3	21.2		383.2	44.9	10.4	59.1

J-29

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	371.5	21.3	4.4	20.9	LTB	2059.5	36.5	37.0	36.5	LTC	44.5	33.2	6.3	33.2	LTD	383.2	44.9	10.4	44.9
					AHB					AHC	321.1	22.7	6.3	22.7	AHD				
					RTB					RTC					RTD				
	371.5	21.3	4.4			2059.5	36.5	37.0	36.5		365.6	27.9	6.3	27.9		383.2	44.9	10.4	44.9

Land at South Tees Development Corporation
Junction Statistics

J-29

2019 Base 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	329.1	21.2	3.8	18.5	ALL	1239.6	33.2	16.9	45.9	LTC	42.2	30.1	3.7	16.6	ALL	175.8	32.1	3.2	21.3
										AHC	233.6	19.6	3.7	16.6					
	329.1	21.2	3.8			1239.6	33.2	16.9	45.9		275.7	24.9	3.7	16.6		175.8	32.1	3.2	21.3

J-29

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	329.1	21.2	3.8	18.5	LTB	1239.6	33.2	16.9	33.2	LTC	42.2	30.1	3.7	30.1	LTD	175.8	32.1	3.2	32.1
					AHB					AHC	233.6	19.6	3.7	19.6	AHD				
					RTB					RTC					RTD				
	329.1	21.2	3.8			1239.6	33.2	16.9	33.2		275.7	24.9	3.7	24.9		175.8	32.1	3.2	32.1

Land at South Tees Development Corporation
Junction Statistics

J-29

2019 Base 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	642.8	22.3	8.3	36.1	ALL	1718.8	34.9	27.0	63.6	LTC	60.3	30.5	5.2	22.4	ALL	311.5	33.2	5.9	37.7
										AHC	311.1	20.0	5.2	22.4					
	642.8	22.3	8.3			1718.8	34.9	27.0	63.6		371.5	25.3	5.2	22.4		311.5	33.2	5.9	37.7

J-29

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	642.8	22.3	8.3	36.1	LTB	1718.8	34.9	27.0	34.9	LTC	60.3	30.5	5.2	30.5	LTD	311.5	33.2	5.9	33.2
					AHB					AHC	311.1	20.0	5.2	20.0	AHD				
					RTB					RTC					RTD				
	642.8	22.3	8.3			1718.8	34.9	27.0	34.9		371.5	25.3	5.2	25.3		311.5	33.2	5.9	33.2

Land at South Tees Development Corporation
Junction Statistics

J-29

2025 Do Something 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	369.9	21.3	4.3	20.8	ALL	2090.4	36.7	38.1	77.3	LTC	44.7	33.3	6.6	22.3	ALL	389.2	44.9	10.6	60.0
										AHC	339.1	22.8	6.6	22.3					
	369.9	21.3	4.3			2090.4	36.7	38.1	77.3		383.8	28.0	6.6	22.3		389.2	44.9	10.6	60.0

J-29

2025 Do Minimum 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	389.1	21.4	4.6	21.8	LTB	2080.1	36.7	37.7	77.0	LTC	44.7	33.3	6.6	22.2	LTD	387.1	44.9	10.5	59.7
					AHB					AHC	336.9	22.7	6.6	22.2	AHD				
					RTB					RTC					RTD				
	389.1	21.4	4.6			2080.1	36.7	37.7	77.0		381.7	28.0	6.6	22.2		387.1	44.9	10.5	59.7

Land at South Tees Development Corporation
Junction Statistics

J-29

2025 Do Something 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	326.9	21.1	3.8	18.3	ALL	1284.1	33.3	17.7	47.5	LTC	42.2	30.2	4.0	17.5	ALL	175.0	32.1	3.1	21.2
										AHC	247.8	19.7	4.0	17.5					
	326.9	21.1	3.8			1284.1	33.3	17.7	47.5		290.0	24.9	4.0	17.5		175.0	32.1	3.1	21.2

J-29

2025 Do Minimum 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	328.3	21.1	3.8	18.4	LTB	1318.6	33.4	18.4	48.8	LTC	42.2	30.2	3.9	17.4	LTD	174.8	32.1	3.1	21.2
					AHB					AHC	247.1	19.7	3.9	17.4	AHD				
					RTB					RTC					RTD				
	328.3	21.1	3.8			1318.6	33.4	18.4	48.8		289.3	24.9	3.9	17.4		174.8	32.1	3.1	21.2

Land at South Tees Development Corporation
Junction Statistics

J-29

2025 Do Something 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	642.7	22.3	8.3	36.1	ALL	1835.9	35.4	30.1	67.9	LTC	60.4	30.7	5.7	24.2	ALL	316.5	33.3	6.0	38.3
										AHC	340.7	20.1	5.7	24.2					
	642.7	22.3	8.3			1835.9	35.4	30.1	67.9		401.1	25.4	5.7	24.2		316.5	33.3	6.0	38.3

J-29

2025 Do Minimum 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	642.6	22.3	8.3	36.1	LTB	1850.6	35.4	30.5	68.5	LTC	60.4	30.7	5.7	24.2	LTD	316.8	33.3	6.0	38.4
					AHB					AHC	340.7	20.1	5.7	24.2	AHD				
					RTB					RTC					RTD				
	642.6	22.3	8.3			1850.6	35.4	30.5	68.5		401.1	25.4	5.7	24.2		316.8	33.3	6.0	38.4

Land at South Tees Development Corporation
Junction Statistics

J-29

2030 Do Something 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	375.3	21.3	4.4	21.1	ALL	2196.1	37.5	42.3	81.3	LTC	45.5	33.3	6.8	22.7	ALL	380.0	44.8	10.3	58.6
										AHC	345.8	22.8	6.8	22.7					
	375.3	21.3	4.4			2196.1	37.5	42.3	81.3		391.3	28.1	6.8	22.7		380.0	44.8	10.3	58.6

J-29

2030 Do Minimum 08:00 - 09:00 AM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	395.1	21.4	4.7	22.2	LTB	2160.2	37.2	40.8	79.9	LTC	45.5	33.3	6.8	22.7	LTD	385.7	44.9	10.4	59.5
					AHB					AHC	346.0	22.8	6.8	22.7	AHD				
					RTB					RTC					RTD				
	395.1	21.4	4.7			2160.2	37.2	40.8	79.9		391.5	28.1	6.8	22.7		385.7	44.9	10.4	59.5

Land at South Tees Development Corporation
Junction Statistics

J-29

2030 Do Something 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	332.8	21.2	3.9	18.7	ALL	1476.1	34.0	21.5	54.6	LTC	42.9	30.2	4.2	18.4	ALL	179.5	32.2	3.2	21.7
										AHC	261.8	19.7	4.2	18.4					
	332.8	21.2	3.9			1476.1	34.0	21.5	54.6		304.7	25.0	4.2	18.4		179.5	32.2	3.2	21.7

J-29

2030 Do Minimum 12:30 - 13:30 IP

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	334.4	21.2	3.9	18.8	LTB	1473.1	33.9	21.5	54.5	LTC	42.9	30.2	4.1	18.3	LTD	179.3	32.2	3.2	21.7
					AHB					AHC	260.1	19.7	4.1	18.3	AHD				
					RTB					RTC					RTD				
	334.4	21.2	3.9			1473.1	33.9	21.5	54.5		303.1	25.0	4.1	18.3		179.3	32.2	3.2	21.7

Land at South Tees Development Corporation
Junction Statistics

J-29

2030 Do Something 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	656.1	22.4	8.5	36.8	ALL	1971.9	36.1	34.1	73.0	LTC	61.4	30.8	6.1	25.7	ALL	326.3	33.3	6.2	39.5
										AHC	365.4	20.2	6.1	25.7					
	656.1	22.4	8.5	36.8		1971.9	36.1	34.1	73.0		426.8	25.5	6.1	25.7		326.3	33.3	6.2	39.5

J-29

2030 Do Minimum 16:30 - 17:30 PM

A: A19 Southbound Off-Slip					B: A174 (East)					D: A19 Northbound Off-Slip					D: A174 (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	655.5	22.4	8.5	36.8	LTB	1987.1	36.1	34.6	73.5	LTC	61.4	30.8	6.1	25.7	LTD	326.7	33.4	6.2	39.6
					AHB					AHC	365.2	20.2	6.1	25.7	AHD				
					RTB					RTC					RTD				
	655.5	22.4	8.5	36.8		1987.1	36.1	34.6	73.5		426.6	25.5	6.1	25.7		326.7	33.4	6.2	39.6

Land at South Tees Development Corporation
Junction Statistics

J-30

2019 Base 08:00 - 09:00 AM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1177.2	4.7	0.0	52.5	LTB	89.7	8.4	0.0	50.6	ALL	850.7	21.4	0.0	80.1
					AHB	719.4	30.1	0.0	87.0					
	1177.2	4.7	0.0			809.1	19.2	0.0	68.8		850.7	21.4	0.0	80.1

J-30

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	1177.2	4.7	0.0	52.5	LTB	89.7	8.4	0.0	8.4	LTC	850.7	21.4	0.0	21.4
				#N/A	AHB	719.4	30.1	0.0	30.1	AHC				
	1177.2	4.7	0.0			809.1	19.2	0.0	19.2		850.7	21.4	0.0	21.4

Land at South Tees Development Corporation
Junction Statistics

J-30

2019 Base 12:30 - 13:30 IP

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1028.3	4.3	0.0	46.2	LTB	67.5	7.6	0.0	39.2	ALL	437.3	9.8	0.0	37.8
					AHB	540.5	6.5	0.0	39.2					
	1028.3	4.3	0.0			608.0	7.1	0.0	39.2		437.3	9.8	0.0	37.8

J-30

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	1028.3	4.3	0.0	46.2	LTB	67.5	7.6	0.0	7.6	LTC	437.3	9.8	0.0	9.8
				#N/A	AHB	540.5	6.5	0.0	6.5	AHC				
	1028.3	4.3	0.0			608.0	7.1	0.0	7.1		437.3	9.8	0.0	9.8

Land at South Tees Development Corporation
Junction Statistics

J-30

2019 Base 16:30 - 17:30 PM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1486.0	6.1	0.0	66.4	LTB	56.9	8.4	0.0	46.1	ALL	648.4	12.4	0.0	58.0
					AHB	619.8	30.1	0.0	84.7					
	1486.0	6.1	0.0			676.8	19.2	0.0	65.4		648.4	12.4	0.0	58.0

J-30

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	1486.0	6.1	0.0	66.4	LTB	56.9	8.4	0.0	8.4	LTC	648.4	12.4	0.0	12.4
				#N/A	AHB	619.8	30.1	0.0	30.1	AHC				
	1486.0	6.1	0.0			676.8	19.2	0.0	19.2		648.4	12.4	0.0	12.4

Land at South Tees Development Corporation
Junction Statistics

J-30

2025 Do Something 08:00 - 09:00 AM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1176.6	4.7	0.0	52.3	LTB	104.1	8.4	0.0	51.5	ALL	917.1	28.0	0.0	86.4
					AHB	720.5	32.5	0.0	88.3					
	1176.6	4.7	0.0			824.6	20.5	0.0	69.9		917.1	28.0	0.0	86.4

J-30

2025 Do Minimum 08:00 - 09:00 AM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1171.7	4.7	0.0	52.2	LTB	105.0	8.5	0.0	51.7	LTC	907.4	26.9	0.0	85.6
				#N/A	AHB	723.3	33.4	0.0	88.7	AHC				
	1171.7	4.7	0.0			828.2	20.9	0.0	70.2		907.4	26.9	0.0	85.6

Land at South Tees Development Corporation
Junction Statistics

J-30

2025 Do Something 12:30 - 13:30 IP

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	936.8	4.1	0.0	42.1	LTB	69.8	7.3	0.0	35.4	ALL	506.5	10.1	0.0	42.8
					AHB	497.2	6.1	0.0	35.4					
	936.8	4.1	0.0			566.9	6.7	0.0	35.4		506.5	10.1	0.0	42.8

J-30

2025 Do Minimum 12:30 - 13:30 IP

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	926.3	4.1	0.0	41.6	LTB	69.8	7.3	0.0	35.9	LTC	502.6	10.1	0.0	42.7
				#N/A	AHB	505.9	6.2	0.0	35.9	AHC				
	926.3	4.1	0.0			575.7	6.7	0.0	35.9		502.6	10.1	0.0	42.7

Land at South Tees Development Corporation
Junction Statistics

J-30

2025 Do Something 16:30 - 17:30 PM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1471.5	6.1	0.0	66.0	LTB	71.2	8.7	0.0	49.2	ALL	685.2	13.2	0.0	61.9
					AHB	638.2	47.8	0.0	91.7					
	1471.5	6.1	0.0			709.4	28.2	0.0	70.4		685.2	13.2	0.0	61.9

J-30

2025 Do Minimum 16:30 - 17:30 PM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1444.8	5.9	0.0	64.8	LTB	69.8	8.7	0.0	48.9	LTC	691.8	13.4	0.0	62.5
				#N/A	AHB	639.1	44.9	0.0	90.9	AHC				
	1444.8	5.9	0.0			709.0	26.8	0.0	69.9		691.8	13.4	0.0	62.5

Land at South Tees Development Corporation
Junction Statistics

J-30

2030 Do Something 08:00 - 09:00 AM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1285.3	5.0	0.0	56.9	LTB	83.3	8.6	0.0	50.7	ALL	971.1	33.6	0.0	89.7
					AHB	682.7	42.3	0.0	91.0					
	1285.3	5.0	0.0			766.0	25.5	0.0	70.8		971.1	33.6	0.0	89.7

J-30

2030 Do Minimum 08:00 - 09:00 AM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1260.6	4.9	0.0	55.7	LTB	88.9	8.7	0.0	51.4	LTC	957.5	31.4	0.0	88.6
				#N/A	AHB	687.0	46.7	0.0	92.3	AHC				
	1260.6	4.9	0.0			776.0	27.7	0.0	71.8		957.5	31.4	0.0	88.6

Land at South Tees Development Corporation
Junction Statistics

J-30

2030 Do Something 12:30 - 13:30 IP

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	974.2	4.2	0.0	43.8	LTB	71.7	7.4	0.0	37.1	ALL	532.5	10.4	0.0	45.5
					AHB	517.2	6.3	0.0	37.1					
	974.2	4.2	0.0			589.0	6.8	0.0	37.1		532.5	10.4	0.0	45.5

J-30

2030 Do Minimum 12:30 - 13:30 IP

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	958.8	4.2	0.0	43.1	LTB	71.5	7.4	0.0	37.3	LTC	518.8	10.3	0.0	44.4
				#N/A	AHB	523.5	6.3	0.0	37.3	AHC				
	958.8	4.2	0.0			595.0	6.8	0.0	37.3		518.8	10.3	0.0	44.4

Land at South Tees Development Corporation
Junction Statistics

J-30

2030 Do Something 16:30 - 17:30 PM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1524.8	6.4	0.0	68.4	LTB	67.1	8.7	0.0	49.3	ALL	731.7	14.3	0.0	66.2
					AHB	642.9	48.8	0.0	92.0					
	1524.8	6.4	0.0	68.4		709.9	28.8	0.0	70.6		731.7	14.3	0.0	66.2

J-30

2030 Do Minimum 16:30 - 17:30 PM

A: A1130 Acklam Road					B: Levick Crescent					C: Mandale Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1487.5	6.2	0.0	66.8	LTB	68.8	8.8	0.0	50.0	LTC	723.3	14.2	0.0	65.6
				#N/A	AHB	648.5	55.9	0.0	93.6	AHC				
	1487.5	6.2	0.0	#N/A		717.3	32.3	0.0	71.8		723.3	14.2	0.0	65.6

J-31

2019 Base 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	195.2	6.8	0.0	42.5	LTB	287.5	11.8	0.0	35.2	LTC	116.9	8.8	0.0	71.1	LTD	116.9	8.6	0.0	58.0
AHA	442.0	6.7	0.0	42.5	AHB	348.5	4.8	0.0	36.8	AHC	1163.5	4.0	0.0	44.9	AHD	633.1	8.7	0.0	58.0
	637.2	6.7	0.0			636.0	8.3	0.0	36.0		1280.4	6.4	0.0	58.0		750.0	8.7	0.0	58.0

J-31

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	195.2	6.8	0.0	42.5	LTB	287.5	11.8	0.0	11.8	LTC	116.9	8.8	0.0	8.8	LTD	116.9	8.6	0.0	8.6
AHA	442.0	6.7	0.0	42.5	AHB	348.5	4.8	0.0	4.8	AHC	1163.5	4.0	0.0	4.0	AHD	633.1	8.7	0.0	8.7
	637.2	6.7	0.0			636.0	8.3	0.0	8.3		1280.4	6.4	0.0	6.4		750.0	8.7	0.0	8.7

J-31

2019 Base 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	195.3	5.8	0.0	39.2	LTB	252.6	11.6	0.0	30.9	LTC	159.3	5.4	0.0	43.7	LTD	117.8	5.2	0.0	32.0
AHA	517.5	5.7	0.0	39.2	AHB	304.5	4.7	0.0	32.7	AHC	632.8	3.5	0.0	27.7	AHD	413.5	5.3	0.0	32.0
	712.8	5.8	0.0			557.1	8.1	0.0	31.8		792.1	4.5	0.0	35.7		531.2	5.2	0.0	32.0

J-31

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	195.3	5.8	0.0	39.2	LTB	252.6	11.6	0.0	11.6	LTC	159.3	5.4	0.0	5.4	LTD	117.8	5.2	0.0	5.2
AHA	517.5	5.7	0.0	39.2	AHB	304.5	4.7	0.0	4.7	AHC	632.8	3.5	0.0	3.5	AHD	413.5	5.3	0.0	5.3
	712.8	5.8	0.0			557.1	8.1	0.0	8.1		792.1	4.5	0.0	4.5		531.2	5.2	0.0	5.2

J-31

2019 Base 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	250.6	7.2	0.0	55.1	LTB	383.9	13.0	0.0	48.3	LTC	176.3	7.0	0.0	60.2	LTD	109.9	6.1	0.0	40.3
AHA	700.8	7.1	0.0	55.1	AHB	395.1	17.4	0.0	77.8	AHC	895.3	3.8	0.0	37.8	AHD	483.3	6.2	0.0	40.3
	951.4	7.2	0.0			779.0	15.2	0.0	63.1		1071.5	5.4	0.0	49.0		593.2	6.1	0.0	40.3

J-31

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	250.6	7.2	0.0	55.1	LTB	383.9	13.0	0.0	13.0	LTC	176.3	7.0	0.0	7.0	LTD	109.9	6.1	0.0	6.1
AHA	700.8	7.1	0.0	55.1	AHB	395.1	17.4	0.0	17.4	AHC	895.3	3.8	0.0	3.8	AHD	483.3	6.2	0.0	6.2
	951.4	7.2	0.0			779.0	15.2	0.0	15.2		1071.5	5.4	0.0	5.4		593.2	6.1	0.0	6.1

J-31

2025 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	201.8	8.2	0.0	54.6	LTB	365.2	12.7	0.0	48.1	LTC	57.7	27.7	0.0	92.7	LTD	130.3	21.0	0.0	81.0
AHA	560.5	8.1	0.0	54.6	AHB	479.6	6.3	0.0	52.5	AHC	1469.2	4.8	0.0	56.6	AHD	652.7	21.1	0.0	81.0
	762.3	8.2	0.0			844.8	9.5	0.0	50.3		1526.9	16.2	0.0	74.6		783.0	21.0	0.0	81.0

J-31

2025 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	211.4	8.5	0.0	55.7	LTB	364.0	12.6	0.0	47.8	LTC	26.8	30.8	0.0	93.7	LTD	133.1	21.4	0.0	81.2
AHA	556.8	8.4	0.0	55.7	AHB	477.5	6.4	0.0	53.2	AHC	1491.3	4.9	0.0	56.8	AHD	639.0	21.4	0.0	81.2
	768.3	8.4	0.0			841.5	9.5	0.0	50.5		1518.1	17.8	0.0	75.2		772.1	21.4	0.0	81.2

J-31

2025 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	207.6	6.3	0.0	46.0	LTB	304.0	12.3	0.0	42.0	LTC	174.7	6.2	0.0	51.8	LTD	126.0	5.8	0.0	37.8
AHA	611.4	6.2	0.0	46.0	AHB	426.6	5.5	0.0	44.5	AHC	720.0	3.6	0.0	32.2	AHD	449.5	5.9	0.0	37.8
	818.9	6.3	0.0			730.6	8.9	0.0	43.3		894.7	4.9	0.0	42.0		575.5	5.8	0.0	37.8

J-31

2025 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	209.5	6.3	0.0	45.8	LTB	305.8	12.3	0.0	42.0	LTC	175.4	6.2	0.0	51.0	LTD	122.6	5.7	0.0	36.9
AHA	611.4	6.2	0.0	45.8	AHB	425.5	5.5	0.0	44.6	AHC	707.2	3.6	0.0	31.7	AHD	442.6	5.8	0.0	36.9
	820.8	6.2	0.0			731.3	8.9	0.0	43.3		882.6	4.9	0.0	41.4		565.2	5.8	0.0	36.9

Land at South Tees Development Corporation
Junction Statistics

J-31

2025 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	282.9	8.3	0.0	62.8	LTB	450.1	19.6	0.0	57.8	LTC	186.0	7.7	0.0	64.3	LTD	99.8	7.0	0.0	48.6
AHA	775.0	8.2	0.0	62.8	AHB	431.8	47.3	0.0	93.8	AHC	938.6	3.9	0.0	40.2	AHD	582.6	7.1	0.0	48.6
	1057.9	8.3	0.0			881.9	33.4	0.0	75.8		1124.6	5.8	0.0	52.2		682.4	7.0	0.0	48.6

J-31

2025 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	287.0	8.3	0.0	62.7	LTB	443.2	19.4	0.0	56.9	LTC	185.3	7.6	0.0	64.3	LTD	98.4	6.9	0.0	47.8
AHA	771.5	8.2	0.0	62.7	AHB	429.4	42.8	0.0	92.6	AHC	940.5	3.9	0.0	40.2	AHD	574.5	7.0	0.0	47.8
	1058.5	8.2	0.0			872.7	31.1	0.0	74.8		1125.8	5.8	0.0	52.2		672.9	6.9	0.0	47.8

Land at South Tees Development Corporation
Junction Statistics

J-31

2030 Do Something 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	245.2	9.5	0.0	62.6	LTB	381.8	12.9	0.0	51.0	LTC	17.5	226.5	0.0	111.2	LTD	98.7	56.9	0.0	93.4
AHA	617.5	9.4	0.0	62.6	AHB	513.6	6.9	0.0	57.1	AHC	1748.1	5.8	0.0	66.9	AHD	572.8	57.0	0.0	93.4
	862.8	9.5	0.0			895.4	9.9	0.0	54.0		1765.6	116.2	0.0	89.1		671.6	56.9	0.0	93.4

J-31

2030 Do Minimum 08:00 - 09:00 AM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	249.2	9.7	0.0	63.4	LTB	386.6	12.9	0.0	50.7	LTC	19.6	206.7	0.0	110.0	LTD	106.7	56.5	0.0	93.6
AHA	619.9	9.6	0.0	63.4	AHB	501.5	6.9	0.0	56.9	AHC	1732.9	5.8	0.0	66.3	AHD	586.5	56.6	0.0	93.6
	869.1	9.7	0.0			888.1	9.9	0.0	53.8		1752.5	106.2	0.0	88.1		693.1	56.6	0.0	93.6

J-31

2030 Do Something 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	216.4	6.6	0.0	48.8	LTB	325.2	12.5	0.0	45.0	LTC	178.5	6.7	0.0	55.9	LTD	130.8	6.2	0.0	41.1
AHA	633.6	6.5	0.0	48.8	AHB	450.9	5.8	0.0	47.8	AHC	778.5	3.7	0.0	34.6	AHD	471.8	6.3	0.0	41.1
	850.0	6.6	0.0			776.1	9.2	0.0	46.4		957.0	5.2	0.0	45.3		602.7	6.2	0.0	41.1

J-31

2030 Do Minimum 12:30 - 13:30 IP

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	213.5	6.6	0.0	48.5	LTB	329.4	12.5	0.0	44.9	LTC	179.5	6.6	0.0	55.5	LTD	126.0	6.1	0.0	40.1
AHA	634.2	6.5	0.0	48.5	AHB	445.0	5.8	0.0	47.7	AHC	772.0	3.7	0.0	34.4	AHD	464.7	6.2	0.0	40.1
	847.7	6.5	0.0			774.3	9.1	0.0	46.3		951.5	5.2	0.0	45.0		590.7	6.1	0.0	40.1

J-31

2030 Do Something 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	281.4	9.1	0.0	66.2	LTB	488.4	21.4	0.0	63.4	LTC	190.8	9.0	0.0	71.2	LTD	107.6	8.1	0.0	55.4
AHA	789.8	9.0	0.0	66.2	AHB	411.3	67.1	0.0	97.3	AHC	1065.4	4.0	0.0	44.6	AHD	622.5	8.2	0.0	55.4
	1071.3	9.1	0.0	66.2		899.7	44.2	0.0	80.3		1256.2	6.5	0.0	57.9		730.1	8.1	0.0	55.4

J-31

2030 Do Minimum 16:30 - 17:30 PM

A: A1032 Acklam Road (North)					B: B1380 Ladgate Lane					C: A1032 Acklam Road (South)					D: Low Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	285.5	9.1	0.0	66.1	LTB	489.5	21.4	0.0	63.4	LTC	191.1	8.5	0.0	69.2	LTD	105.0	7.7	0.0	53.2
AHA	790.8	9.0	0.0	66.1	AHB	416.1	70.8	0.0	97.8	AHC	1025.8	4.0	0.0	43.3	AHD	608.6	7.8	0.0	53.2
	1076.3	9.0	0.0	66.1		905.5	46.1	0.0	80.6		1216.8	6.3	0.0	56.2		713.6	7.8	0.0	53.2

Land at South Tees Development Corporation
Junction Statistics

J-32

2019 Base 08:00 - 09:00 AM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	722.1	3.6	0.0	31.1	LTB	308.6	7.8	0.0	60.6	LTC	74.8	15.3	0.0	39.0
					AHB	850.0	7.0	0.0	60.6	AHC	399.6	48.5	0.0	87.3
	722.1	3.6	0.0			1158.5	7.4	0.0	60.6		474.5	31.9	0.0	63.1

J-32

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	722.1	3.6	0.0	31.1	LTB	308.6	7.8	0.0	7.8	LTC	74.8	15.3	0.0	15.3
					AHB	850.0	7.0	0.0	7.0	AHC	399.6	48.5	0.0	48.5
	722.1	3.6	0.0			1158.5	7.4	0.0	7.4		474.5	31.9	0.0	31.9

Land at South Tees Development Corporation
Junction Statistics

J-32

2019 Base 12:30 - 13:30 IP

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	520.5	3.4	0.0	22.9	LTB	190.1	5.3	0.0	22.1	LTC	91.2	13.4	0.0	27.5
					AHB	257.0	4.6	0.0	22.1	AHC	380.4	5.9	0.0	27.5
	520.5	3.4	0.0			447.1	4.9	0.0	22.1		471.6	9.6	0.0	27.5

J-32

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	520.5	3.4	0.0	22.9	LTB	190.1	5.3	0.0	5.3	LTC	91.2	13.4	0.0	13.4
					AHB	257.0	4.6	0.0	4.6	AHC	380.4	5.9	0.0	5.9
	520.5	3.4	0.0			447.1	4.9	0.0	4.9		471.6	9.6	0.0	9.6

Land at South Tees Development Corporation
Junction Statistics

J-32

2019 Base 16:30 - 17:30 PM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	821.1	3.9	0.0	36.6	LTB	334.7	8.6	0.0	34.1	LTC	56.7	13.9	0.0	38.9
					AHB	307.7	5.0	0.0	32.7	AHC	605.7	6.5	0.0	38.9
	821.1	3.9	0.0			642.4	6.8	0.0	33.4		662.4	10.2	0.0	38.9

J-32

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	821.1	3.9	0.0	36.6	LTB	334.7	8.6	0.0	8.6	LTC	56.7	13.9	0.0	13.9
					AHB	307.7	5.0	0.0	5.0	AHC	605.7	6.5	0.0	6.5
	821.1	3.9	0.0			642.4	6.8	0.0	6.8		662.4	10.2	0.0	10.2

Land at South Tees Development Corporation
Junction Statistics

J-32

2025 Do Something 08:00 - 09:00 AM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	916.2	4.0	0.0	40.4	LTB	308.4	7.4	0.0	57.0	LTC	60.2	7.2	0.0	41.2
					AHB	783.4	6.6	0.0	57.0	AHC	536.6	22.8	0.0	77.2
	916.2	4.0	0.0			1091.8	7.0	0.0	57.0		596.8	15.0	0.0	59.2

J-32

2025 Do Minimum 08:00 - 09:00 AM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	925.1	4.0	0.0	40.8	LTB	296.8	7.2	0.0	55.0	LTC	60.3	7.1	0.0	40.7
					AHB	753.5	6.4	0.0	55.0	AHC	536.7	21.2	0.0	75.5
	925.1	4.0	0.0			1050.4	6.8	0.0	55.0		597.0	14.1	0.0	58.1

Land at South Tees Development Corporation
Junction Statistics

J-32

2025 Do Something 12:30 - 13:30 IP

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	680.5	3.6	0.0	30.0	LTB	189.9	5.4	0.0	24.7	LTC	92.7	5.8	0.0	27.3
					AHB	310.9	4.6	0.0	24.7	AHC	384.2	5.9	0.0	27.3
	680.5	3.6	0.0			500.8	5.0	0.0	24.7		476.9	5.8	0.0	27.3

J-32

2025 Do Minimum 12:30 - 13:30 IP

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	680.9	3.6	0.0	30.0	LTB	189.2	5.4	0.0	24.7	LTC	92.7	5.8	0.0	27.3
					AHB	311.1	4.6	0.0	24.7	AHC	384.2	5.9	0.0	27.3
	680.9	3.6	0.0			500.3	5.0	0.0	24.7		476.9	5.8	0.0	27.3

Land at South Tees Development Corporation
Junction Statistics

J-32

2025 Do Something 16:30 - 17:30 PM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1030.2	4.3	0.0	45.9	LTB	343.6	5.9	0.0	36.4	LTC	57.3	6.4	0.0	38.8
					AHB	378.1	5.1	0.0	36.4	AHC	611.4	6.4	0.0	38.8
	1030.2	4.3	0.0			721.7	5.5	0.0	36.4		668.7	6.4	0.0	38.8

J-32

2025 Do Minimum 16:30 - 17:30 PM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1029.1	4.3	0.0	45.9	LTB	338.1	5.9	0.0	36.3	LTC	57.4	6.4	0.0	38.8
					AHB	379.0	5.1	0.0	36.3	AHC	610.9	6.4	0.0	38.8
	1029.1	4.3	0.0			717.1	5.5	0.0	36.3		668.3	6.4	0.0	38.8

Land at South Tees Development Corporation
Junction Statistics

J-32

2030 Do Something 08:00 - 09:00 AM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1070.9	4.4	0.0	47.4	LTB	344.8	8.5	0.0	65.6	LTC	70.4	7.6	0.0	43.6
					AHB	905.7	7.7	0.0	65.6	AHC	526.1	37.3	0.0	86.2
	1070.9	4.4	0.0			1250.5	8.1	0.0	65.6		596.5	22.5	0.0	64.9

J-32

2030 Do Minimum 08:00 - 09:00 AM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1077.2	4.4	0.0	47.6	LTB	335.7	8.3	0.0	64.2	LTC	63.1	7.6	0.0	43.3
					AHB	883.1	7.5	0.0	64.2	AHC	533.3	34.7	0.0	85.0
	1077.2	4.4	0.0			1218.8	7.9	0.0	64.2		596.5	21.2	0.0	64.2

Land at South Tees Development Corporation
Junction Statistics

J-32

2030 Do Something 12:30 - 13:30 IP

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	818.5	3.9	0.0	36.1	LTB	194.0	5.6	0.0	29.8	LTC	94.2	6.0	0.0	29.1
					AHB	402.5	4.8	0.0	29.8	AHC	394.8	6.1	0.0	29.1
	818.5	3.9	0.0			596.5	5.2	0.0	29.8		489.0	6.0	0.0	29.1

J-32

2030 Do Minimum 12:30 - 13:30 IP

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	812.2	3.8	0.0	35.9	LTB	193.3	5.6	0.0	29.5	LTC	94.6	6.0	0.0	29.1
					AHB	399.1	4.8	0.0	29.5	AHC	394.7	6.0	0.0	29.1
	812.2	3.8	0.0			592.4	5.2	0.0	29.5		489.3	6.0	0.0	29.1

Land at South Tees Development Corporation
Junction Statistics

J-32

2030 Do Something 16:30 - 17:30 PM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1191.5	4.8	0.0	53.2	LTB	363.6	6.3	0.0	43.5	LTC	58.7	6.7	0.0	41.4
					AHB	492.9	5.5	0.0	43.5	AHC	624.3	6.8	0.0	41.4
	1191.5	4.8	0.0	53.2		856.5	5.9	0.0	43.5		683.1	6.7	0.0	41.4

J-32

2030 Do Minimum 16:30 - 17:30 PM

A: Low Lane (North)					B: Stainton Way					C: Low Lane (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1187.2	4.8	0.0	53.0	LTB	365.4	6.3	0.0	43.6	LTC	58.8	6.7	0.0	41.4
					AHB	492.6	5.5	0.0	43.6	AHC	624.3	6.7	0.0	41.4
	1187.2	4.8	0.0	53.0		858.0	5.9	0.0	43.6		683.1	6.7	0.0	41.4

Land at South Tees Development Corporation
Junction Statistics

J-33

2019 Base 08:00 - 09:00 AM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	439.3	8.6	0.0	40.5	LTB	40.3	8.9	0.0	5.7	LTC	58.1	7.6	0.0	59.8	LTD	238.3	19.5	0.0	53.5
AHA	981.1	5.3	0.0	47.0	AHB	598.6	4.2	0.0	30.9	AHC	1041.0	10.9	0.0	73.8	AHD	154.0	14.3	0.0	35.4
	1420.4	7.0	0.0			638.9	6.6	0.0	18.3		1099.1	9.2	0.0	66.8		392.3	16.9	0.0	44.5

J-33

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	439.3	8.6	0.0	40.5	LTB	40.3	8.9	0.0	8.9	LTC	58.1	7.6	0.0	7.6	LTD	238.3	19.5	0.0	19.5
AHA	981.1	5.3	0.0	47.0	AHB	598.6	4.2	0.0	4.2	AHC	1041.0	10.9	0.0	10.9	AHD	154.0	14.3	0.0	14.3
	1420.4	7.0	0.0			638.9	6.6	0.0	6.6		1099.1	9.2	0.0	9.2		392.3	16.9	0.0	16.9

J-33

2019 Base 12:30 - 13:30 IP

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	631.7	11.3	0.0	59.2	LTB	78.6	9.3	0.0	11.2	LTC	66.2	5.8	0.0	37.3	LTD	130.6	10.2	0.0	22.4
AHA	1078.2	5.5	0.0	52.0	AHB	359.7	3.9	0.0	19.2	AHC	626.4	5.2	0.0	42.8	AHD	206.6	4.0	0.0	19.3
	1709.8	8.4	0.0			438.3	6.6	0.0	15.2		692.6	5.5	0.0	40.0		337.2	7.1	0.0	20.8

J-33

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	631.7	11.3	0.0	59.2	LTB	78.6	9.3	0.0	9.3	LTC	66.2	5.8	0.0	5.8	LTD	130.6	10.2	0.0	10.2
AHA	1078.2	5.5	0.0	52.0	AHB	359.7	3.9	0.0	3.9	AHC	626.4	5.2	0.0	5.2	AHD	206.6	4.0	0.0	4.0
	1709.8	8.4	0.0			438.3	6.6	0.0	6.6		692.6	5.5	0.0	5.5		337.2	7.1	0.0	7.1

Land at South Tees Development Corporation
Junction Statistics

J-33

2019 Base 16:30 - 17:30 PM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	956.8	25.7	0.0	86.6	LTB	20.0	9.3	0.0	3.1	LTC	74.1	7.7	0.0	57.9	LTD	212.5	14.4	0.0	41.8
AHA	1437.7	7.4	0.0	69.1	AHB	415.8	4.9	0.0	27.9	AHC	906.2	9.7	0.0	69.8	AHD	139.8	4.7	0.0	23.8
	2394.5	16.6	0.0			435.8	7.1	0.0	15.5		980.2	8.7	0.0	63.9		352.3	9.5	0.0	32.8

J-33

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	956.8	25.7	0.0	86.6	LTB	20.0	9.3	0.0	9.3	LTC	74.1	7.7	0.0	7.7	LTD	212.5	14.4	0.0	14.4
AHA	1437.7	7.4	0.0	69.1	AHB	415.8	4.9	0.0	4.9	AHC	906.2	9.7	0.0	9.7	AHD	139.8	4.7	0.0	4.7
	2394.5	16.6	0.0			435.8	7.1	0.0	7.1		980.2	8.7	0.0	8.7		352.3	9.5	0.0	9.5

Land at South Tees Development Corporation
Junction Statistics

J-33

2025 Do Something 08:00 - 09:00 AM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	447.0	8.7	0.0	41.4	LTB	24.8	9.4	0.0	3.9	LTC	71.5	9.8	0.0	73.6	LTD	283.7	22.6	0.0	61.7
AHA	1133.8	7.9	0.0	55.1	AHB	338.2	16.0	0.0	18.8	AHC	1335.4	20.1	0.0	83.5	AHD	159.8	18.5	0.0	42.9
	1580.9	8.3	0.0			363.0	12.7	0.0	11.3		1406.9	14.9	0.0	78.6		443.5	20.6	0.0	52.3

J-33

2025 Do Minimum 08:00 - 09:00 AM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	447.1	8.7	0.0	41.3	LTB	32.1	9.4	0.0	5.0	LTC	74.6	9.9	0.0	74.2	LTD	279.4	22.9	0.0	61.8
AHA	1111.4	7.8	0.0	54.0	AHB	340.3	15.9	0.0	18.7	AHC	1343.9	20.9	0.0	84.5	AHD	162.4	20.1	0.0	45.6
	1558.5	8.2	0.0			372.4	12.7	0.0	11.8		1418.5	15.4	0.0	79.4		441.8	21.5	0.0	53.7

Land at South Tees Development Corporation
Junction Statistics

J-33

2025 Do Something 12:30 - 13:30 IP

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	680.9	12.7	0.0	64.7	LTB	83.9	9.7	0.0	12.6	LTC	59.0	6.0	0.0	41.3	LTD	167.0	10.1	0.0	26.3
AHA	1153.4	8.1	0.0	57.1	AHB	360.4	16.0	0.0	19.9	AHC	704.9	11.7	0.0	47.4	AHD	209.8	3.8	0.0	11.2
	1834.3	10.4	0.0			444.3	12.8	0.0	16.2		763.9	8.9	0.0	44.4		376.7	6.9	0.0	18.8

J-33

2025 Do Minimum 12:30 - 13:30 IP

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	678.6	12.6	0.0	64.5	LTB	83.1	9.7	0.0	12.4	LTC	59.0	6.0	0.0	41.2	LTD	164.7	10.0	0.0	26.0
AHA	1147.5	8.1	0.0	56.8	AHB	359.4	16.0	0.0	19.8	AHC	703.2	11.7	0.0	47.3	AHD	209.8	3.8	0.0	11.2
	1826.1	10.4	0.0			442.5	12.8	0.0	16.1		762.2	8.9	0.0	44.2		374.5	6.9	0.0	18.6

Land at South Tees Development Corporation
Junction Statistics

J-33

2025 Do Something 16:30 - 17:30 PM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	964.2	31.6	0.0	89.5	LTB	20.8	10.0	0.0	3.6	LTC	72.0	8.1	0.0	62.9	LTD	236.5	13.7	0.0	42.7
AHA	1504.4	11.0	0.0	74.9	AHB	349.2	16.8	0.0	24.2	AHC	1054.8	15.9	0.0	72.8	AHD	146.0	4.2	0.0	9.4
	2468.5	21.3	0.0			370.0	13.4	0.0	13.9		1126.8	12.0	0.0	67.8		382.4	8.9	0.0	26.0

J-33

2025 Do Minimum 16:30 - 17:30 PM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	954.4	30.5	0.0	89.0	LTB	22.5	10.1	0.0	3.9	LTC	72.7	8.1	0.0	62.8	LTD	242.1	13.8	0.0	43.7
AHA	1501.8	11.1	0.0	75.1	AHB	348.7	16.8	0.0	24.2	AHC	1052.2	15.9	0.0	72.7	AHD	159.5	4.2	0.0	10.2
	2456.3	20.8	0.0			371.2	13.4	0.0	14.1		1124.9	12.0	0.0	67.7		401.6	9.0	0.0	26.9

Land at South Tees Development Corporation
Junction Statistics

J-33

2030 Do Something 08:00 - 09:00 AM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	452.5	8.7	0.0	41.8	LTB	28.5	9.7	0.0	4.7	LTC	69.2	10.8	0.0	77.0	LTD	313.4	34.5	0.0	74.4
AHA	1255.8	8.4	0.0	60.8	AHB	387.1	16.2	0.0	22.7	AHC	1398.4	27.5	0.0	89.9	AHD	149.5	34.2	0.0	57.9
	1708.3	8.6	0.0			415.6	13.0	0.0	13.7		1467.5	19.2	0.0	83.4		462.9	34.4	0.0	66.1

J-33

2030 Do Minimum 08:00 - 09:00 AM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	450.2	8.7	0.0	41.6	LTB	31.4	9.7	0.0	5.1	LTC	71.5	11.1	0.0	77.8	LTD	313.1	33.2	0.0	73.5
AHA	1232.9	8.3	0.0	59.9	AHB	365.5	16.2	0.0	21.3	AHC	1413.1	26.9	0.0	89.7	AHD	158.2	32.4	0.0	57.9
	1683.2	8.5	0.0			396.9	12.9	0.0	13.2		1484.6	19.0	0.0	83.7		471.3	32.8	0.0	65.7

Land at South Tees Development Corporation
Junction Statistics

J-33

2030 Do Something 12:30 - 13:30 IP

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	694.9	13.1	0.0	66.2	LTB	85.0	10.0	0.0	13.2	LTC	60.3	6.2	0.0	45.2	LTD	170.1	10.5	0.0	27.9
AHA	1237.2	8.6	0.0	61.3	AHB	373.0	16.1	0.0	21.4	AHC	774.0	12.2	0.0	52.2	AHD	214.9	3.9	0.0	12.0
	1932.1	10.8	0.0			458.0	13.0	0.0	17.3		834.3	9.2	0.0	48.7		385.0	7.2	0.0	19.9

J-33

2030 Do Minimum 12:30 - 13:30 IP

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	690.0	13.0	0.0	65.8	LTB	85.2	9.9	0.0	13.1	LTC	60.3	6.3	0.0	45.3	LTD	167.6	10.4	0.0	27.4
AHA	1223.0	8.5	0.0	60.7	AHB	369.1	16.1	0.0	21.1	AHC	775.1	12.2	0.0	52.1	AHD	214.2	3.9	0.0	11.9
	1913.0	10.8	0.0			454.3	13.0	0.0	17.1		835.4	9.2	0.0	48.7		381.8	7.2	0.0	19.6

Land at South Tees Development Corporation
Junction Statistics

J-33

2030 Do Something 16:30 - 17:30 PM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	996.9	39.9	0.0	92.6	LTB	23.9	10.4	0.0	4.3	LTC	73.7	9.0	0.0	68.1	LTD	253.6	15.4	0.0	48.0
AHA	1605.5	12.8	0.0	80.0	AHB	354.3	17.1	0.0	26.2	AHC	1134.8	18.5	0.0	79.1	AHD	156.4	4.3	0.0	10.5
	2602.4	26.4	0.0	86.3		378.2	13.7	0.0	15.3		1208.6	13.8	0.0	73.6		409.9	9.8	0.0	29.2

J-33

2030 Do Minimum 16:30 - 17:30 PM

A: B1365 (North)					B: Newham Way					C: B1365 (South)					D: Viewley Hill Avenue				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	989.1	37.5	0.0	91.9	LTB	23.4	10.3	0.0	4.2	LTC	73.9	9.0	0.0	67.9	LTD	246.5	15.0	0.0	46.5
AHA	1587.9	12.4	0.0	79.1	AHB	353.7	17.1	0.0	25.9	AHC	1131.0	18.4	0.0	78.8	AHD	151.8	4.3	0.0	10.2
	2577.1	25.0	0.0	85.5		377.1	13.7	0.0	15.1		1204.9	13.7	0.0	73.3		398.3	9.6	0.0	28.3

J-34

2019 Base 08:00 - 09:00 AM

A: A172 Marton Road					B: B1380 Ladgate Lane (East)					C: A172 Stokesley Road					D: B1380 Ladgate Lane (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	335.2	1.1	0.0	0.0	LTB	171.7	50.7	21.6	33.1	LTC	57.1	68.4	2.8	14.8	LTD	409.1	208.2	45.1	105.8
AHA	361.6	75.1	28.9	57.2	AHB	316.3	54.8	40.0	54.8	AHC	305.5	290.7	113.1	111.6	AHD	287.3	82.5	48.0	83.1
RTA	149.2	75.0	28.6	55.3	RTB	316.4	88.8	16.1	82.8	RTC	600.4	141.1	59.0	102.2	RTD	20.8	72.3	16.1	13.3
	846.0	50.4	19.2			804.4	64.8	25.9	56.9		963.0	166.8	58.3	76.2		717.3	121.0	36.4	67.4

J-34

A: A172 Marton Road					B: B1380 Ladgate Lane (East)					C: A172 Stokesley Road					D: B1380 Ladgate Lane (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	335.2	1.1	0.0	0.0	LTB	171.7	50.7	21.6	50.7	LTC	57.1	68.4	2.8	68.4	LTD	409.1	208.2	45.1	208.2
AHA	361.6	75.1	28.9	57.2	AHB	316.3	54.8	40.0	54.8	AHC	305.5	290.7	113.1	290.7	AHD	287.3	82.5	48.0	82.5
RTA	149.2	75.0	28.6	55.3	RTB	316.4	88.8	16.1	88.8	RTC	600.4	141.1	59.0	141.1	RTD	20.8	72.3	16.1	72.3
	846.0	50.4	19.2			804.4	64.8	25.9	64.8		963.0	166.8	58.3	166.8		717.3	121.0	36.4	121.0

J-34

2019 Base 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	293.2	1.1	0.0	0.0	LTB	146.0	39.0	11.5	24.4	LTC	35.3	55.1	1.3	10.0	LTD	148.9	63.7	16.3	49.4
AHA	341.2	60.9	21.8	60.8	AHB	205.6	40.5	20.3	40.0	AHC	437.9	47.6	24.0	48.9	AHD	230.9	60.7	18.3	54.7
RTA	144.6	60.9	21.5	58.8	RTB	222.8	53.9	8.3	54.6	RTC	176.9	47.7	24.0	48.9	RTD	38.3	62.1	11.0	22.6
	778.9	41.0	14.4			574.4	44.5	13.4	39.7		650.1	50.1	16.5	35.9		418.1	62.2	15.2	42.2

J-34

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	293.2	1.1	0.0	0.0	LTB	146.0	39.0	11.5	39.0	LTC	35.3	55.1	1.3	55.1	LTD	148.9	63.7	16.3	63.7
AHA	341.2	60.9	21.8	60.8	AHB	205.6	40.5	20.3	40.5	AHC	437.9	47.6	24.0	47.6	AHD	230.9	60.7	18.3	60.7
RTA	144.6	60.9	21.5	58.8	RTB	222.8	53.9	8.3	53.9	RTC	176.9	47.7	24.0	47.7	RTD	38.3	62.1	11.0	62.1
	778.9	41.0	14.4			574.4	44.5	13.4	44.5		650.1	50.1	16.5	50.1		418.1	62.2	15.2	62.2

Land at South Tees Development Corporation
Junction Statistics

J-34

2019 Base 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	284.3	1.1	0.0	0.0	LTB	315.0	56.1	15.5	50.8	LTC	34.2	77.2	1.8	12.4	LTD	114.0	77.8	17.9	42.4
AHA	443.9	61.6	31.9	52.0	AHB	365.6	58.6	49.2	66.0	AHC	362.6	72.2	33.5	61.4	AHD	221.8	74.1	18.0	42.9
RTA	183.7	61.5	31.6	50.3	RTB	248.5	71.0	29.8	63.7	RTC	238.6	72.2	33.5	61.4	RTD	2.3	70.6	11.4	1.6
	911.9	41.4	21.2			929.1	61.9	31.5	60.2		635.4	73.9	22.9	45.1		338.0	74.2	15.8	29.0

J-34

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	284.3	1.1	0.0	0.0	LTB	315.0	56.1	15.5	56.1	LTC	34.2	77.2	1.8	77.2	LTD	114.0	77.8	17.9	77.8
AHA	443.9	61.6	31.9	52.0	AHB	365.6	58.6	49.2	58.6	AHC	362.6	72.2	33.5	72.2	AHD	221.8	74.1	18.0	74.1
RTA	183.7	61.5	31.6	50.3	RTB	248.5	71.0	29.8	71.0	RTC	238.6	72.2	33.5	72.2	RTD	2.3	70.6	11.4	70.6
	911.9	41.4	21.2			929.1	61.9	31.5	61.9		635.4	73.9	22.9	73.9		338.0	74.2	15.8	74.2

J-34

2025 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	357.1	18.8	1.7	64.0	LTB	189.3	81.4	26.9	39.9	LTC	29.8	70.4	1.4	7.8	LTD	400.2	189.7	41.5	103.5
AHA	380.4	78.9	30.9	60.4	AHB	398.6	57.4	50.0	64.3	AHC	335.8	354.1	127.5	115.2	AHD	347.3	85.1	55.2	88.9
RTA	158.9	79.1	30.6	58.4	RTB	356.3	150.2	18.8	93.6	RTC	599.3	138.7	58.6	102.0	RTD	19.9	92.4	19.6	13.1
	896.4	58.9	21.1			944.1	96.3	31.9	65.9		965.0	187.8	62.5	75.0		767.4	122.4	38.8	68.5

J-34

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	357.4	18.8	1.8	64.1	LTB	197.8	81.5	27.4	40.5	LTC	29.7	70.4	1.4	7.7	LTD	402.2	197.4	42.3	104.0
AHA	373.9	78.7	30.5	59.8	AHB	398.9	57.7	51.2	65.4	AHC	329.8	345.4	125.5	114.7	AHD	347.5	85.0	54.9	88.8
RTA	159.4	79.0	30.2	57.7	RTB	363.7	160.8	19.3	95.5	RTC	601.3	143.0	59.3	102.4	RTD	16.4	91.7	19.4	10.8
	890.7	58.8	20.8			960.4	100.0	32.6	67.1		960.8	186.3	62.1	74.9		766.1	124.7	38.9	67.9

Land at South Tees Development Corporation
Junction Statistics

J-34

2025 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	356.0	14.2	1.3	56.6	LTB	115.8	68.8	13.8	28.6	LTC	36.8	58.3	1.4	10.4	LTD	147.5	80.8	17.2	51.5
AHA	412.7	65.7	26.3	70.2	AHB	295.7	41.7	25.1	47.5	AHC	478.6	48.3	26.2	52.4	AHD	248.6	60.6	18.2	54.3
RTA	147.7	65.9	26.0	67.8	RTB	269.8	90.0	10.4	66.1	RTC	180.2	48.3	26.2	52.4	RTD	18.9	79.2	10.9	11.3
	916.3	48.6	17.9			681.3	66.9	16.4	47.4		695.6	51.6	17.9	38.4		415.0	73.5	15.4	39.1

J-34

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	353.4	14.0	1.3	56.1	LTB	115.0	68.8	13.6	28.2	LTC	36.8	58.3	1.4	10.4	LTD	143.2	80.6	16.6	50.2
AHA	420.8	66.0	27.2	71.7	AHB	291.1	41.7	25.1	47.5	AHC	453.6	47.9	24.9	50.3	AHD	242.9	60.6	18.3	54.6
RTA	152.1	66.1	26.8	69.3	RTB	275.1	90.8	10.7	67.4	RTC	178.9	47.9	24.9	50.3	RTD	31.3	81.2	11.2	18.8
	926.3	48.7	18.4			681.2	67.1	16.4	47.7		669.3	51.4	17.1	37.0		417.4	74.1	15.4	41.2

J-34

2025 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	312.9	12.9	1.0	50.7	LTB	292.7	85.0	35.8	52.2	LTC	36.3	80.5	1.9	13.1	LTD	103.8	93.9	16.1	38.6
AHA	497.5	65.9	35.9	57.1	AHB	445.0	60.2	55.5	71.6	AHC	384.0	74.6	41.1	71.4	AHD	202.3	73.4	16.2	39.1
RTA	190.7	66.1	35.5	55.1	RTB	269.2	105.1	36.0	68.9	RTC	314.9	74.6	41.1	71.4	RTD	1.9	90.6	10.3	1.3
	1001.1	48.3	24.1			1006.9	83.4	42.5	64.2		735.1	76.5	28.0	52.0		308.0	86.0	14.2	26.3

J-34

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	313.2	12.9	1.0	50.8	LTB	312.5	85.2	36.5	53.0	LTC	36.2	80.5	1.9	13.1	LTD	101.6	93.8	16.0	38.4
AHA	515.8	66.4	37.5	59.0	AHB	436.4	60.5	56.8	72.6	AHC	382.5	74.5	41.0	71.2	AHD	202.6	73.3	16.1	38.8
RTA	195.8	66.6	37.1	57.0	RTB	272.4	105.6	35.7	69.7	RTC	314.8	74.6	41.0	71.2	RTD	1.8	90.6	10.3	1.2
	1024.9	48.6	25.2			1021.3	83.8	43.0	65.1		733.5	76.5	27.9	51.8		306.0	85.9	14.1	26.2

J-34

2030 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	370.8	20.2	2.0	66.7	LTB	231.9	82.3	30.3	44.0	LTC	31.4	70.5	1.5	8.2	LTD	413.5	243.4	47.0	106.9
AHA	387.5	79.2	32.0	62.0	AHB	416.6	59.3	57.1	70.3	AHC	345.8	389.3	135.6	117.2	AHD	354.2	86.1	57.5	90.5
RTA	165.4	79.4	31.6	59.9	RTB	383.0	203.0	20.7	100.7	RTC	605.4	152.7	60.9	103.1	RTD	13.1	91.1	19.6	8.8
	923.7	59.6	21.8			1031.5	114.9	36.0	71.7		982.6	204.1	66.0	76.2		780.9	140.2	41.3	68.7

J-34

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	370.4	20.4	2.0	66.8	LTB	227.2	82.2	29.9	43.5	LTC	29.6	70.4	1.4	7.7	LTD	410.5	230.9	45.7	106.2
AHA	391.3	79.4	32.4	62.6	AHB	413.9	59.0	56.3	69.6	AHC	339.7	385.5	134.7	117.0	AHD	364.7	86.8	59.2	91.5
RTA	167.1	79.5	32.0	60.4	RTB	380.7	197.8	20.5	100.2	RTC	609.7	163.4	62.5	103.8	RTD	14.5	91.4	20.3	9.7
	928.7	59.8	22.1			1021.9	113.0	35.6	71.1		979.0	206.4	66.2	76.2		789.8	136.4	41.7	69.1

J-34

2030 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	380.1	15.5	1.5	60.5	LTB	122.0	69.2	15.0	30.8	LTC	36.6	58.3	1.4	10.3	LTD	154.1	80.9	17.5	52.3
AHA	396.7	65.2	25.1	67.8	AHB	321.7	42.4	27.6	51.2	AHC	479.2	48.4	26.7	53.2	AHD	247.9	60.7	18.4	54.8
RTA	145.1	65.5	24.8	65.5	RTB	290.3	93.2	11.4	71.2	RTC	188.8	48.4	26.7	53.2	RTD	16.7	79.0	10.8	10.1
	921.9	48.7	17.1			734.0	68.3	18.0	51.0		704.6	51.7	18.2	38.9		418.7	73.5	15.5	39.1

J-34

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	369.7	14.9	1.4	58.9	LTB	123.6	69.1	14.8	30.4	LTC	37.1	58.3	1.4	10.5	LTD	151.7	80.9	17.5	52.5
AHA	409.5	65.8	26.6	70.7	AHB	314.8	42.1	26.3	49.3	AHC	464.7	48.2	25.9	51.9	AHD	251.6	61.0	19.2	56.9
RTA	154.9	66.0	26.2	68.3	RTB	269.0	90.0	10.4	66.0	RTC	187.9	48.2	25.9	51.9	RTD	31.4	81.2	11.6	18.9
	934.1	48.9	18.1			707.4	67.1	17.2	48.6		689.8	51.6	17.7	38.1		434.7	74.4	16.1	42.8

J-34

2030 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	331.6	13.7	1.2	54.0	LTB	285.9	84.8	35.1	51.4	LTC	37.2	80.5	1.9	13.5	LTD	126.2	94.5	17.9	42.4
AHA	506.4	66.3	37.0	58.4	AHB	440.2	60.4	56.3	72.2	AHC	409.1	75.6	44.5	75.2	AHD	209.7	74.0	18.0	42.9
RTA	198.2	66.4	36.6	56.4	RTB	290.2	109.5	37.1	74.4	RTC	327.4	75.6	44.5	75.2	RTD	1.8	90.6	10.7	1.2
	1036.2	48.8	24.9	56.3		1016.2	84.9	42.8	66.0		773.7	77.2	30.3	54.6		337.6	86.4	15.5	28.8

J-34

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Gypsy Lane					C: A172 Dixons Bank (South)					D: Gunnergate Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	328.2	13.6	1.1	53.4	LTB	290.7	85.1	35.9	52.3	LTC	36.5	80.5	1.9	13.2	LTD	128.2	94.6	18.2	43.1
AHA	524.7	66.8	38.8	60.6	AHB	448.4	60.7	57.3	73.0	AHC	403.0	75.3	43.6	74.2	AHD	213.1	74.1	18.3	43.6
RTA	205.7	66.9	38.3	58.5	RTB	287.8	109.0	37.5	73.8	RTC	323.5	75.3	43.6	74.2	RTD	1.9	90.6	10.9	1.3
	1058.6	49.1	26.1	57.5		1026.9	84.9	43.6	66.4		763.1	77.0	29.7	53.9		343.1	86.5	15.8	29.3

Land at South Tees Development Corporation
Junction Statistics

J-35

2019 Base 08:00 - 09:00 AM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	130.9	7.6	0.2	18.8	LTB	229.6	12.6	0.7	42.3	ALL	681.1	15.7	15.0	56.7	LTD	410.8	23.5	2.4	71.5
AHA	482.0	21.8	9.7	24.0	RTB	142.9	37.1	1.9	59.0						RTD	431.6	52.6	17.4	83.2
	612.8	14.7	5.0			372.4	24.9	1.3	50.6		681.1	15.7	15.0	56.7		842.4	38.0	9.9	77.4

J-35

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	130.9	7.6	0.2	18.8	LTB	229.6	12.6	0.7	12.6	LTC	681.1	15.7	15.0	15.7	LTD	410.8	23.5	2.4	23.5
AHA	482.0	21.8	9.7	24.0	AHB	142.9	37.1	1.9	37.1	AHC					AHD	431.6	52.6	17.4	52.6
	612.8	14.7	5.0			372.4	24.9	1.3	24.9		681.1	15.7	15.0	15.7		842.4	38.0	9.9	38.0

J-35

2019 Base 12:30 - 13:30 IP

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	121.7	7.3	0.2	17.1	LTB	0.0	7.4	0.0	0.0	ALL	536.5	13.9	10.4	44.6	LTD	178.4	10.5	0.4	29.8
AHA	516.5	22.0	10.5	25.7	RTB	56.2	22.5	0.3	20.3						RTD	363.6	48.0	12.8	70.1
	638.2	14.7	5.4			56.2	15.0	0.1	10.1		536.5	13.9	10.4	44.6		542.0	29.2	6.6	49.9

J-35

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	121.7	7.3	0.2	17.1	LTB	0.0	7.4	0.0	7.4	LTC	536.5	13.9	10.4	13.9	LTD	178.4	10.5	0.4	10.5
AHA	516.5	22.0	10.5	25.7	AHB	56.2	22.5	0.3	22.5	AHC					AHD	363.6	48.0	12.8	48.0
	638.2	14.7	5.4			56.2	15.0	0.1	15.0		536.5	13.9	10.4	13.9		542.0	29.2	6.6	29.2

J-35

2019 Base 16:30 - 17:30 PM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	187.3	8.2	0.4	26.6	LTB	188.3	11.2	0.5	34.6	ALL	565.4	14.2	11.2	47.0	LTD	344.8	16.3	1.4	58.1
AHA	589.5	22.4	12.3	29.3	RTB	111.6	29.6	1.2	44.7						RTD	431.7	52.6	17.4	83.2
	776.8	15.3	6.3			299.9	20.4	0.9	39.6		565.4	14.2	11.2	47.0		776.5	34.4	9.4	70.6

J-35

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	187.3	8.2	0.4	26.6	LTB	188.3	11.2	0.5	11.2	LTC	565.4	14.2	11.2	14.2	LTD	344.8	16.3	1.4	16.3
AHA	589.5	22.4	12.3	29.3	AHB	111.6	29.6	1.2	29.6	AHC					AHD	431.7	52.6	17.4	52.6
	776.8	15.3	6.3			299.9	20.4	0.9	20.4		565.4	14.2	11.2	14.2		776.5	34.4	9.4	34.4

Land at South Tees Development Corporation
Junction Statistics

J-35

2025 Do Something 08:00 - 09:00 AM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	139.4	7.7	0.3	20.1	LTB	306.8	15.6	1.2	55.4	ALL	709.9	15.5	16.1	59.1	LTD	415.8	24.8	2.6	73.0
AHA	513.6	22.0	10.5	25.6	RTB	187.8	66.9	3.1	77.5						RTD	415.9	51.2	16.1	80.1
	653.0	14.8	5.4			494.6	41.3	2.2	66.4		709.9	15.5	16.1	59.1		831.7	38.0	9.4	76.6

J-35

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	138.5	7.7	0.2	19.9	LTB	306.4	15.6	1.2	55.3	LTC	700.2	15.4	15.8	58.2	LTD	419.7	25.1	2.7	73.5
AHA	513.7	22.0	10.5	25.6	AHB	176.5	58.2	2.5	72.9	AHC					AHD	416.3	51.2	16.1	80.2
	652.2	14.8	5.4			483.0	36.9	1.9	64.1		700.2	15.4	15.8	58.2		835.9	38.2	9.4	76.8

Land at South Tees Development Corporation
Junction Statistics

J-35

2025 Do Something 12:30 - 13:30 IP

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	126.9	7.4	0.2	17.9	LTB	0.5	7.3	0.0	0.1	ALL	571.6	14.5	9.5	56.6	LTD	140.3	9.9	0.3	23.7
AHA	495.3	21.1	7.9	31.1	RTB	58.6	21.8	0.3	20.3						RTD	290.7	28.0	5.4	46.2
	622.2	14.2	4.0			59.1	14.5	0.1	10.2		571.6	14.5	9.5	56.6		431.0	18.9	2.8	34.9

J-35

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	126.5	7.4	0.2	17.8	LTB	0.2	7.2	0.0	0.0	LTC	546.4	13.4	10.7	45.5	LTD	134.2	9.7	0.3	22.5
AHA	510.3	22.0	10.4	25.4	AHB	58.2	21.1	0.2	19.4	AHC					AHD	246.1	43.6	7.5	47.4
	636.8	14.7	5.3			58.4	14.2	0.1	9.7		546.4	13.4	10.7	45.5		380.3	26.6	3.9	35.0

Land at South Tees Development Corporation
Junction Statistics

J-35

2025 Do Something 16:30 - 17:30 PM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	194.1	8.3	0.4	27.5	LTB	261.8	13.1	0.9	46.7	ALL	646.7	14.6	13.8	53.8	LTD	319.6	15.7	1.2	55.1
AHA	590.8	22.4	12.3	29.4	RTB	129.2	38.2	1.1	53.7						RTD	421.0	51.6	16.5	81.1
	784.9	15.3	6.4			391.0	25.6	1.0	50.2		646.7	14.6	13.8	53.8		740.6	33.7	8.9	68.1

J-35

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	193.9	8.2	0.4	27.5	LTB	260.7	13.1	0.9	46.4	LTC	644.1	14.6	13.7	53.6	LTD	304.1	14.9	1.1	52.4
AHA	613.9	22.5	12.9	30.5	AHB	127.4	38.6	1.1	53.7	AHC					AHD	415.8	51.2	16.1	80.1
	807.7	15.4	6.6			388.1	25.8	1.0	50.0		644.1	14.6	13.7	53.6		719.9	33.1	8.6	66.3

Land at South Tees Development Corporation
Junction Statistics

J-35

2030 Do Something 08:00 - 09:00 AM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	144.9	7.8	0.3	20.9	LTB	315.8	16.7	1.4	57.8	ALL	729.3	15.8	16.9	60.7	LTD	410.3	24.5	2.6	72.5
AHA	551.5	22.2	11.4	27.4	RTB	195.7	101.4	5.0	86.9						RTD	450.2	54.7	19.2	86.8
	696.5	15.0	5.8			511.6	59.1	3.2	72.4		729.3	15.8	16.9	60.7		860.6	39.6	10.9	79.6

J-35

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	141.7	7.7	0.3	20.4	LTB	316.4	16.6	1.4	57.7	LTC	717.3	15.6	16.4	59.7	LTD	419.3	25.5	2.7	73.8
AHA	550.1	22.2	11.3	27.4	AHB	191.1	85.3	4.1	83.1	AHC					AHD	437.3	53.2	17.9	84.3
	691.8	15.0	5.8			507.5	50.9	2.7	70.4		717.3	15.6	16.4	59.7		856.6	39.3	10.3	79.0

Land at South Tees Development Corporation
Junction Statistics

J-35

2030 Do Something 12:30 - 13:30 IP

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	128.4	7.4	0.2	18.1	LTB	1.1	7.4	0.0	0.2	ALL	573.0	14.5	9.6	56.7	LTD	156.3	10.2	0.4	26.4
AHA	486.0	21.0	7.7	30.5	RTB	60.1	22.7	0.3	21.6						RTD	357.0	29.4	7.1	56.7
	614.5	14.2	4.0			61.1	15.1	0.1	10.9		573.0	14.5	9.6	56.7		513.3	19.8	3.7	41.6

J-35

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	127.1	7.4	0.2	17.9	LTB	0.2	7.3	0.0	0.0	LTC	558.5	13.5	11.0	46.5	LTD	153.6	10.1	0.3	25.8
AHA	514.2	22.0	10.5	25.6	AHB	59.2	21.7	0.3	20.3	AHC					AHD	273.3	44.4	8.5	52.7
	641.3	14.7	5.3			59.4	14.5	0.1	10.2		558.5	13.5	11.0	46.5		426.9	27.3	4.4	39.2

Land at South Tees Development Corporation
Junction Statistics

J-35

2030 Do Something 16:30 - 17:30 PM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	202.4	8.4	0.4	28.7	LTB	278.6	14.3	1.0	50.7	ALL	674.0	15.0	14.8	56.1	LTD	356.8	18.2	1.6	62.0
AHA	598.5	22.4	12.5	29.8	RTB	135.4	47.6	1.5	61.4						RTD	495.7	67.7	26.3	95.5
	800.9	15.4	6.5	29.2		414.0	31.0	1.3	56.0		674.0	15.0	14.8	56.1		852.4	42.9	13.9	78.8

J-35

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Stokesley Road (North)					B: A174 Westbound Off-Slip					C: A172 Stokesley Road (South)					D: A174 Eastbound Off-Slip				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	199.0	8.3	0.4	28.2	LTB	267.7	13.7	0.9	48.3	LTC	665.6	14.9	14.5	55.4	LTD	335.5	16.7	1.4	58.2
AHA	607.1	22.5	12.7	30.2	AHB	131.2	43.5	1.3	58.0	AHC					AHD	462.3	56.6	20.7	89.1
	806.0	15.4	6.6	29.2		398.9	28.6	1.1	53.2		665.6	14.9	14.5	55.4		797.8	36.7	11.0	73.6

J-36

2019 Base 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	366.4	16.2	1.2	55.3	LTB	64.5	16.2	0.1	11.1	LTC	254.0	35.2	2.0	67.7	LTD	136.7	8.6	0.3	22.2
AHA	464.1	79.8	33.0	83.7	AHB	427.7	88.7	27.6	66.5	AHC	216.0	44.6	9.4	27.5	AHD	162.7	81.6	9.2	25.3
RTA	49.7	105.8	3.1	32.4	RTB	262.5	83.0	16.4	63.1	RTC	4.2	83.7	0.2	1.2	RTD	244.9	82.5	14.2	48.0
	880.2	67.3	12.4			754.7	62.6	14.7	46.9		474.2	54.5	3.9	32.1		544.4	57.6	7.9	31.8

J-36

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	366.4	16.2	1.2	55.3	LTB	64.5	16.2	0.1	16.2	LTC	254.0	35.2	2.0	35.2	LTD	136.7	8.6	0.3	8.6
AHA	464.1	79.8	33.0	83.7	AHB	427.7	88.7	27.6	88.7	AHC	216.0	44.6	9.4	44.6	AHD	162.7	81.6	9.2	81.6
RTA	49.7	105.8	3.1	32.4	RTB	262.5	83.0	16.4	83.0	RTC	4.2	83.7	0.2	83.7	RTD	244.9	82.5	14.2	82.5
	880.2	67.3	12.4			754.7	62.6	14.7	62.6		474.2	54.5	3.9	54.5		544.4	57.6	7.9	57.6

J-36

2019 Base 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	206.0	12.0	0.5	31.1	LTB	21.0	15.5	0.0	3.5	LTC	198.1	14.0	0.4	30.4	LTD	148.4	9.1	0.3	24.8
AHA	361.1	57.9	17.7	63.2	AHB	126.5	65.3	5.7	18.7	AHC	393.4	40.3	15.8	49.0	AHD	167.2	65.8	7.7	24.7
RTA	109.5	88.8	6.0	58.4	RTB	207.8	77.0	11.3	67.2	RTC	6.5	68.5	0.3	1.7	RTD	281.0	81.7	15.9	74.2
	676.6	52.9	8.1			355.3	52.6	5.7	29.8		597.9	41.0	5.5	27.0		596.6	52.2	8.0	41.2

J-36

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	206.0	12.0	0.5	31.1	LTB	21.0	15.5	0.0	15.5	LTC	198.1	14.0	0.4	14.0	LTD	148.4	9.1	0.3	9.1
AHA	361.1	57.9	17.7	63.2	AHB	126.5	65.3	5.7	65.3	AHC	393.4	40.3	15.8	40.3	AHD	167.2	65.8	7.7	65.8
RTA	109.5	88.8	6.0	58.4	RTB	207.8	77.0	11.3	77.0	RTC	6.5	68.5	0.3	68.5	RTD	281.0	81.7	15.9	81.7
	676.6	52.9	8.1			355.3	52.6	5.7	52.6		597.9	41.0	5.5	41.0		596.6	52.2	8.0	52.2

J-36

2019 Base 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	395.2	18.6	1.6	61.5	LTB	17.3	15.8	0.0	3.1	LTC	288.6	16.0	0.8	44.4	LTD	97.2	8.5	0.2	16.8
AHA	404.7	62.4	23.6	56.8	AHB	145.3	106.5	10.0	46.3	AHC	462.5	37.2	20.9	46.0	AHD	280.1	113.4	24.4	89.2
RTA	103.9	114.1	7.5	57.3	RTB	251.4	97.9	18.3	72.5	RTC	23.5	81.3	1.3	5.2	RTD	410.8	121.9	39.7	96.6
	903.8	65.0	10.9			414.1	73.4	9.4	40.6		774.6	44.8	7.7	31.9		788.1	81.3	21.4	67.5

J-36

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	395.2	18.6	1.6	61.5	LTB	17.3	15.8	0.0	15.8	LTC	288.6	16.0	0.8	16.0	LTD	97.2	8.5	0.2	8.5
AHA	404.7	62.4	23.6	56.8	AHB	145.3	106.5	10.0	106.5	AHC	462.5	37.2	20.9	37.2	AHD	280.1	113.4	24.4	113.4
RTA	103.9	114.1	7.5	57.3	RTB	251.4	97.9	18.3	97.9	RTC	23.5	81.3	1.3	81.3	RTD	410.8	121.9	39.7	121.9
	903.8	65.0	10.9			414.1	73.4	9.4	73.4		774.6	44.8	7.7	44.8		788.1	81.3	21.4	81.3

J-36

2025 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	358.0	15.9	1.2	53.9	LTB	61.3	16.3	0.1	10.8	LTC	221.0	26.8	1.4	59.2	LTD	237.9	10.9	0.6	38.6
AHA	476.4	81.5	34.8	86.0	AHB	443.6	89.2	28.9	69.0	AHC	201.0	49.2	8.7	25.6	AHD	160.2	81.6	9.1	24.9
RTA	46.2	98.4	2.9	30.1	RTB	270.0	83.5	17.0	64.9	RTC	1.3	77.1	0.1	0.4	RTD	316.0	85.8	19.4	62.0
	880.5	65.3	13.0			774.9	63.0	15.4	48.2		423.4	51.0	3.4	28.4		714.1	59.4	9.7	41.8

J-36

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	381.1	16.8	1.3	57.4	LTB	59.4	16.2	0.1	10.4	LTC	226.4	27.5	1.5	60.5	LTD	231.8	10.7	0.6	37.5
AHA	453.6	78.9	31.5	81.9	AHB	438.2	89.1	28.5	68.2	AHC	190.2	48.9	8.1	24.2	AHD	159.3	81.6	9.0	24.8
RTA	46.2	98.4	2.9	30.1	RTB	271.2	83.6	17.1	65.2	RTC	1.2	77.1	0.1	0.3	RTD	312.2	85.6	19.1	61.2
	880.9	64.7	11.9			768.9	63.0	15.2	47.9		417.8	51.2	3.2	28.3		703.3	59.3	9.6	41.1

Land at South Tees Development Corporation
Junction Statistics

J-36

2025 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	176.8	11.6	0.4	26.7	LTB	21.5	15.4	0.0	3.6	LTC	185.0	11.1	0.4	28.3	LTD	149.0	9.4	0.3	24.8
AHA	284.6	54.9	12.9	49.8	AHB	125.9	65.3	5.7	18.6	AHC	360.9	44.5	14.2	45.0	AHD	168.1	65.8	7.7	24.8
RTA	102.6	81.2	5.6	54.6	RTB	217.3	77.8	12.1	70.3	RTC	4.8	62.0	0.2	1.2	RTD	291.1	82.5	16.8	76.8
	564.0	49.2	6.3			364.7	52.8	5.9	30.8		550.7	39.2	4.9	24.8		608.3	52.5	8.3	42.2

J-36

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	177.8	11.6	0.4	26.9	LTB	21.5	15.4	0.0	3.6	LTC	185.0	11.1	0.4	28.3	LTD	146.1	9.4	0.3	24.3
AHA	259.9	53.9	11.6	45.5	AHB	125.9	65.3	5.7	18.6	AHC	366.1	44.6	14.4	45.6	AHD	168.1	65.8	7.7	24.8
RTA	97.1	80.9	5.2	51.7	RTB	216.1	77.7	12.0	69.9	RTC	4.8	62.0	0.2	1.2	RTD	291.1	82.5	16.8	76.8
	534.8	48.8	5.7			363.6	52.8	5.9	30.7		555.9	39.2	5.0	25.0		605.4	52.5	8.3	42.0

J-36

2025 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)				B: Stainton Way (East)				C: A172 Dixons Bank (South)				D: Stainton Way (West)							
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	335.0	15.9	1.1	52.4	LTB	17.5	15.8	0.0	3.1	LTC	276.8	13.1	0.7	42.9	LTD	95.0	8.8	0.2	16.3
AHA	409.4	62.8	23.9	57.5	AHB	162.3	107.1	11.4	51.8	AHC	435.9	41.5	19.3	43.3	AHD	309.2	128.5	31.7	98.5
RTA	117.6	108.3	8.7	64.8	RTB	259.3	98.7	19.1	74.7	RTC	11.6	74.4	0.6	2.6	RTD	423.6	139.6	43.8	99.6
	862.0	62.3	11.2			439.1	73.9	10.2	43.2		724.4	43.0	6.9	29.6		827.8	92.3	25.2	71.5

J-36

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)				B: Stainton Way (East)				C: A172 Dixons Bank (South)				D: Stainton Way (West)							
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	336.3	15.9	1.1	52.5	LTB	17.5	15.8	0.0	3.1	LTC	277.0	13.1	0.7	42.9	LTD	91.7	8.8	0.2	15.7
AHA	404.1	62.5	23.5	56.7	AHB	162.8	107.1	11.4	51.9	AHC	437.8	41.6	19.4	43.5	AHD	303.6	121.7	30.0	96.7
RTA	116.5	108.2	8.6	64.2	RTB	258.8	98.7	19.1	74.6	RTC	12.4	74.4	0.7	2.7	RTD	423.3	139.0	43.7	99.5
	856.8	62.2	11.1			439.1	73.9	10.2	43.2		727.1	43.0	6.9	29.7		818.6	89.8	24.6	70.7

J-36

2030 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	363.1	16.1	1.2	54.7	LTB	58.8	16.4	0.1	10.5	LTC	227.4	28.1	1.5	61.2	LTD	250.3	11.3	0.7	40.8
AHA	505.5	86.7	40.1	91.2	AHB	455.2	89.6	30.0	70.8	AHC	205.7	49.3	8.9	26.2	AHD	162.0	81.6	9.2	25.2
RTA	47.3	98.5	3.0	30.8	RTB	290.3	85.0	18.8	69.8	RTC	0.9	77.1	0.0	0.3	RTD	351.5	87.8	22.5	68.9
	915.9	67.1	14.8			804.3	63.7	16.3	50.4		434.1	51.5	3.5	29.2		763.8	60.2	10.8	45.0

J-36

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	363.3	16.1	1.2	54.7	LTB	58.9	16.4	0.1	10.5	LTC	235.6	29.1	1.7	63.0	LTD	243.1	11.1	0.7	39.6
AHA	497.7	84.9	38.5	89.8	AHB	439.9	89.1	28.6	68.4	AHC	195.9	49.1	8.4	24.9	AHD	162.6	81.6	9.2	25.3
RTA	47.1	98.5	3.0	30.7	RTB	294.8	85.3	19.3	70.9	RTC	1.0	77.1	0.1	0.3	RTD	348.1	87.6	22.2	68.3
	908.1	66.5	14.2			793.6	63.6	16.0	49.9		432.5	51.8	3.4	29.4		753.8	60.1	10.7	44.4

J-36

2030 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	207.7	12.1	0.5	31.4	LTB	22.0	15.5	0.0	3.7	LTC	194.4	11.2	0.4	29.8	LTD	154.3	9.6	0.3	25.9
AHA	300.1	55.5	13.8	52.5	AHB	128.0	65.3	5.8	18.9	AHC	379.8	45.0	15.1	47.3	AHD	173.5	65.9	8.0	25.6
RTA	105.4	81.4	5.7	56.1	RTB	226.0	78.5	12.8	73.1	RTC	3.9	62.0	0.2	1.0	RTD	296.8	82.9	17.4	78.3
	613.2	49.7	6.7			375.9	53.1	6.2	31.9		578.2	39.4	5.2	26.0		624.6	52.8	8.6	43.3

J-36

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	180.1	11.6	0.4	27.2	LTB	21.8	15.4	0.0	3.6	LTC	194.4	11.2	0.4	29.7	LTD	147.7	9.5	0.3	24.8
AHA	279.5	54.7	12.7	48.9	AHB	128.4	65.3	5.8	19.0	AHC	386.1	45.2	15.5	48.1	AHD	173.4	65.9	8.0	25.6
RTA	102.1	81.2	5.5	54.4	RTB	223.8	78.3	12.6	72.4	RTC	4.3	62.0	0.2	1.1	RTD	297.8	83.0	17.5	78.6
	561.7	49.2	6.2			374.1	53.0	6.2	31.7		584.8	39.5	5.4	26.3		618.8	52.8	8.6	43.0

J-36

2030 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	355.2	16.7	1.2	55.5	LTB	17.4	15.9	0.0	3.1	LTC	285.2	13.4	0.8	44.3	LTD	92.0	8.8	0.2	15.9
AHA	452.5	64.9	27.6	63.5	AHB	168.2	107.3	11.8	53.6	AHC	450.4	41.9	20.2	44.8	AHD	304.0	122.0	30.1	96.8
RTA	124.6	109.1	9.4	68.7	RTB	268.2	99.7	20.2	77.3	RTC	17.9	74.7	1.0	4.0	RTD	422.5	137.5	43.4	99.4
	932.3	63.6	12.7	62.6		453.8	74.3	10.7	44.7		753.5	43.3	7.3	31.0		818.5	89.4	24.6	70.7

J-36

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Stainton Way (East)					C: A172 Dixons Bank (South)					D: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	338.7	16.1	1.1	53.1	LTB	17.4	15.9	0.0	3.1	LTC	285.8	13.4	0.8	44.4	LTD	92.8	8.8	0.2	16.0
AHA	433.8	64.0	26.0	60.9	AHB	168.1	107.3	11.8	53.6	AHC	450.9	41.9	20.2	44.8	AHD	312.7	135.9	32.9	99.6
RTA	129.9	109.7	10.0	71.6	RTB	270.3	99.9	20.4	77.9	RTC	17.7	74.6	0.9	3.9	RTD	414.4	125.4	40.8	97.4
	902.3	63.3	12.3	61.8		455.8	74.4	10.8	44.9		754.4	43.3	7.3	31.1		819.9	90.0	24.6	71.0

J-37

2019 Base 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	304.3	21.7	6.1	39.5	LTB	0.0	83.8	17.3	100.0	RTC	40.2	31.9	0.9	8.6	LTD	136.7	8.6	0.3	22.2
AHA	444.0	22.7	9.7	51.5	RTB	314.0	124.0	20.0	103.3	AHC	432.9	32.1	13.2	82.1	AHD	162.7	81.6	9.2	25.3
	748.3	22.2	7.9			314.0	103.9	18.6	101.7		473.1	32.0	7.0	45.3		299.5	45.1	4.7	23.7

J-37

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	304.3	21.7	6.1	39.5	LTB	0.0	83.8	17.3	83.8	LTC	40.2	31.9	0.9	31.9	LTD	136.7	8.6	0.3	8.6
AHA	444.0	22.7	9.7	51.5	AHB	314.0	124.0	20.0	124.0	AHC	432.9	32.1	13.2	32.1	AHD	162.7	81.6	9.2	81.6
	748.3	22.2	7.9			314.0	103.9	18.6	103.9		473.1	32.0	7.0	32.0		299.5	45.1	4.7	45.1

J-37

2019 Base 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	202.4	22.0	3.5	34.5	LTB	0.4	33.0	4.2	61.8	RTC	12.4	22.1	0.2	2.1	LTD	148.4	9.1	0.3	24.8
AHA	382.6	23.9	7.6	58.3	RTB	184.4	33.7	4.3	63.7	AHC	467.9	27.0	10.8	75.7	AHD	167.2	65.8	7.7	24.7
	585.0	23.0	5.6			184.8	33.4	4.2	62.7		480.2	24.6	5.5	38.9		315.6	37.4	4.0	24.8

J-37

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	202.4	22.0	3.5	34.5	LTB	0.4	33.0	4.2	33.0	LTC	12.4	22.1	0.2	22.1	LTD	148.4	9.1	0.3	9.1
AHA	382.6	23.9	7.6	58.3	AHB	184.4	33.7	4.3	33.7	AHC	467.9	27.0	10.8	27.0	AHD	167.2	65.8	7.7	65.8
	585.0	23.0	5.6			184.8	33.4	4.2	33.4		480.2	24.6	5.5	24.6		315.6	37.4	4.0	37.4

Land at South Tees Development Corporation
Junction Statistics

J-37

2019 Base 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	393.5	15.1	6.6	39.3	LTB	0.0	60.2	11.5	95.6	RTC	21.6	31.6	0.5	4.6	LTD	97.2	8.5	0.2	16.8
AHA	434.7	14.4	7.3	38.8	RTB	243.8	75.8	13.0	98.7	AHC	646.6	25.3	16.9	74.2	AHD	280.1	113.4	24.4	89.2
	828.2	14.7	6.9			243.9	68.0	12.2	97.2		668.2	28.5	8.7	39.4		377.3	61.0	12.3	53.0

J-37

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	393.5	15.1	6.6	39.3	LTB	0.0	60.2	11.5	60.2	LTC	21.6	31.6	0.5	31.6	LTD	97.2	8.5	0.2	8.5
AHA	434.7	14.4	7.3	38.8	AHB	243.8	75.8	13.0	75.8	AHC	646.6	25.3	16.9	25.3	AHD	280.1	113.4	24.4	113.4
	828.2	14.7	6.9			243.9	68.0	12.2	68.0		668.2	28.5	8.7	28.5		377.3	61.0	12.3	61.0

Land at South Tees Development Corporation
Junction Statistics

J-37

2025 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	223.2	20.5	4.2	29.0	LTB	0.0	71.4	15.9	98.5	RTC	6.1	31.0	0.1	1.3	LTD	237.9	10.9	0.6	38.6
AHA	629.5	26.8	16.5	73.1	RTB	309.0	102.5	18.3	101.7	AHC	418.4	31.2	12.2	79.4	AHD	160.2	81.6	9.1	24.9
	852.7	23.7	10.4			309.0	86.9	17.1	100.1		424.5	31.1	6.2	40.3		398.1	46.3	4.8	31.7

J-37

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	195.4	20.2	3.6	25.4	LTB	0.0	61.4	14.4	96.5	LTC	6.0	31.0	0.1	1.3	LTD	231.8	10.7	0.6	37.5
AHA	630.6	26.8	16.6	73.2	AHB	302.7	81.0	16.4	99.6	AHC	422.4	31.6	12.5	80.1	AHD	159.3	81.6	9.0	24.8
	826.0	23.5	10.1			302.7	71.2	15.4	98.0		428.4	31.3	6.3	40.7		391.1	46.1	4.8	31.1

Land at South Tees Development Corporation
Junction Statistics

J-37

2025 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	198.7	21.9	3.5	33.8	LTB	0.1	31.7	3.2	49.7	RTC	4.0	21.7	0.1	0.7	LTD	149.0	9.4	0.3	24.8
AHA	393.8	24.2	7.9	60.0	RTB	148.4	32.5	3.2	51.3	AHC	486.8	28.4	11.6	78.7	AHD	168.1	65.8	7.7	24.8
	592.5	23.0	5.7			148.5	32.1	3.2	50.5		490.8	25.1	5.8	39.7		317.2	37.6	4.0	24.8

J-37

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	174.0	21.5	3.0	29.6	LTB	0.1	31.9	3.3	51.1	LTC	4.0	21.7	0.1	0.7	LTD	146.1	9.4	0.3	24.3
AHA	393.6	24.2	7.9	59.9	AHB	152.7	32.6	3.3	52.7	AHC	492.9	28.7	11.9	79.7	AHD	168.1	65.8	7.7	24.8
	567.6	22.9	5.4			152.8	32.2	3.3	51.9		497.0	25.2	6.0	40.2		314.3	37.6	4.0	24.6

Land at South Tees Development Corporation
Junction Statistics

J-37

2025 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	447.0	15.7	7.9	44.6	LTB	0.0	56.9	10.8	94.3	RTC	0.9	30.9	0.0	0.2	LTD	95.0	8.8	0.2	16.3
AHA	447.8	14.5	7.6	40.0	RTB	240.5	68.0	12.1	97.4	AHC	630.5	25.4	16.1	72.3	AHD	309.2	128.5	31.7	98.5
	894.8	15.1	7.7			240.5	62.4	11.5	95.8		631.4	28.2	8.0	36.3		404.2	68.7	16.0	57.4

J-37

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	441.3	15.6	7.7	44.0	LTB	0.0	58.5	11.2	95.0	LTC	0.9	30.9	0.0	0.2	LTD	91.7	8.8	0.2	15.7
AHA	446.1	14.5	7.5	39.8	AHB	242.3	71.8	12.5	98.1	AHC	630.8	25.4	16.1	72.3	AHD	303.6	121.7	30.0	96.7
	887.4	15.1	7.6			242.3	65.2	11.8	96.5		631.7	28.2	8.1	36.3		395.3	65.2	15.1	56.2

Land at South Tees Development Corporation
Junction Statistics

J-37

2030 Do Something 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	163.2	19.7	3.0	21.2	LTB	0.0	64.3	14.9	97.2	RTC	5.1	31.0	0.1	1.1	LTD	250.3	11.3	0.7	40.8
AHA	761.4	33.3	25.4	88.4	RTB	304.9	87.6	17.0	100.3	AHC	448.0	34.6	14.4	85.0	AHD	162.0	81.6	9.2	25.2
	924.6	26.5	14.2			304.9	75.9	16.0	98.7		453.1	32.8	7.3	43.0		412.2	46.5	4.9	33.0

J-37

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	155.6	19.6	2.8	20.2	LTB	0.0	64.0	14.8	97.1	LTC	5.8	31.0	0.1	1.2	LTD	243.1	11.1	0.7	39.6
AHA	758.9	33.1	25.1	88.1	AHB	304.7	86.9	17.0	100.2	AHC	447.6	34.5	14.4	84.9	AHD	162.6	81.6	9.2	25.3
	914.5	26.4	14.0			304.7	75.5	15.9	98.7		453.4	32.8	7.2	43.1		405.7	46.4	4.9	32.4

Land at South Tees Development Corporation
Junction Statistics

J-37

2030 Do Something 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	206.3	22.0	3.6	35.1	LTB	0.1	31.9	3.4	51.8	RTC	3.0	21.7	0.0	0.5	LTD	154.3	9.6	0.3	25.9
AHA	411.1	24.6	8.4	62.6	RTB	154.7	32.7	3.4	53.4	AHC	512.3	29.9	13.0	82.9	AHD	173.5	65.9	8.0	25.6
	617.4	23.3	6.0			154.8	32.3	3.4	52.6		515.4	25.8	6.5	41.7		327.8	37.7	4.2	25.7

J-37

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	182.4	21.7	3.1	31.1	LTB	0.1	32.1	3.5	53.7	LTC	3.7	21.7	0.1	0.6	LTD	147.7	9.5	0.3	24.8
AHA	412.6	24.6	8.4	62.8	AHB	160.6	32.9	3.6	55.4	AHC	515.5	30.1	13.2	83.4	AHD	173.4	65.9	8.0	25.6
	595.0	23.1	5.8			160.7	32.5	3.5	54.6		519.2	25.9	6.6	42.0		321.1	37.7	4.2	25.2

Land at South Tees Development Corporation
Junction Statistics

J-37

2030 Do Something 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)									
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	468.0	16.0	8.4	46.7	LTB	0.0	59.1	11.3	95.2	RTC	0.9	30.9	0.0	0.2	LTD	92.0	8.8	0.2	15.9
AHA	486.1	14.9	8.4	43.4	RTB	242.8	73.1	12.7	98.3	AHC	652.6	26.1	17.2	74.8	AHD	304.0	122.0	30.1	96.8
	954.1	15.4	8.4	45.1		242.8	66.1	12.0	96.8		653.5	28.5	8.6	37.5		396.0	65.4	15.2	56.4

J-37

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Dixons Bank (North)					B: Guisborough Road					C: A172 Dixons Bank (South)					D				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	453.2	15.8	8.0	45.2	LTB	0.0	59.3	11.3	95.3	LTC	0.9	30.9	0.0	0.2	LTD	92.8	8.8	0.2	16.0
AHA	481.9	14.9	8.3	43.0	AHB	243.1	73.8	12.7	98.4	AHC	653.9	26.1	17.2	75.0	AHD	312.7	135.9	32.9	99.6
	935.1	15.3	8.2	44.1		243.1	66.6	12.0	96.9		654.8	28.5	8.6	37.6		405.5	72.4	16.5	57.8

Land at South Tees Development Corporation
Junction Statistics

J-38

2019 Base 08:00 - 09:00 AM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	565.9	99.5	0.0	98.4	AHB	311.4	38.2	0.0	80.1	LTC	22.9	51.9	0.0	80.7	ALL	624.9	72.7	0.0	95.7
					LTB	535.1	4.9	0.0	47.2	AHC	567.7	115.9	0.0	100.1					
	565.9	99.5	0.0			846.5	21.5	0.0	63.7		590.6	83.9	0.0	90.4		624.9	72.7	0.0	95.7

J-38

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	565.9	99.5	0.0	98.4	LTB	311.4	38.2	0.0	38.2	LTC	22.9	51.9	0.0	51.9	LTD	624.9	72.7	0.0	72.7
					AHB	535.1	4.9	0.0	4.9	AHC	567.7	115.9	0.0	115.9	AHD				
	565.9	99.5	0.0			846.5	21.5	0.0	21.5		590.6	83.9	0.0	83.9		624.9	72.7	0.0	72.7

J-38

2019 Base 12:30 - 13:30 IP

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	490.4	6.1	0.0	39.7	AHB	372.0	27.9	0.0	39.6	LTC	54.0	42.8	0.0	71.0	ALL	354.7	10.3	0.0	48.0
					LTB	353.6	4.2	0.0	38.6	AHC	517.6	28.7	0.0	80.5					
	490.4	6.1	0.0			725.6	16.0	0.0	39.1		571.6	35.7	0.0	75.7		354.7	10.3	0.0	48.0

J-38

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	490.4	6.1	0.0	39.7	LTB	372.0	27.9	0.0	27.9	LTC	54.0	42.8	0.0	42.8	LTD	354.7	10.3	0.0	10.3
					AHB	353.6	4.2	0.0	4.2	AHC	517.6	28.7	0.0	28.7	AHD				
	490.4	6.1	0.0			725.6	16.0	0.0	16.0		571.6	35.7	0.0	35.7		354.7	10.3	0.0	10.3

Land at South Tees Development Corporation
Junction Statistics

J-38

2019 Base 16:30 - 17:30 PM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	821.1	11.4	0.0	70.0	AHB	483.0	30.7	0.0	55.2	LTC	5.3	53.9	0.0	82.3	ALL	482.4	17.8	0.0	69.7
					LTB	423.3	5.4	0.0	51.8	AHC	596.1	73.5	0.0	95.1					
	821.1	11.4	0.0			906.3	18.0	0.0	53.5		601.4	63.7	0.0	88.7		482.4	17.8	0.0	69.7

J-38

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	821.1	11.4	0.0	70.0	LTB	483.0	30.7	0.0	30.7	LTC	5.3	53.9	0.0	53.9	LTD	482.4	17.8	0.0	17.8
					AHB	423.3	5.4	0.0	5.4	AHC	596.1	73.5	0.0	73.5	AHD				
	821.1	11.4	0.0			906.3	18.0	0.0	18.0		601.4	63.7	0.0	63.7		482.4	17.8	0.0	17.8

Land at South Tees Development Corporation
Junction Statistics

J-38

2025 Do Something 08:00 - 09:00 AM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	575.5	147.3	0.0	103.0	AHB	308.2	40.5	0.0	82.4	LTC	22.8	31.4	0.0	0.0	ALL	412.0	67.2	0.0	90.9
					LTB	545.6	5.0	0.0	48.2	AHC	929.1	23.2	0.0	0.0					
	575.5	147.3	0.0			853.8	22.8	0.0	65.3		951.9	27.3	0.0	0.0		412.0	67.2	0.0	90.9

J-38

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	573.3	145.9	0.0	102.9	LTB	311.5	40.5	0.0	82.4	LTC	22.8	31.4	0.0	0.0	LTD	408.5	66.7	0.0	90.7
					AHB	542.2	5.0	0.0	48.2	AHC	929.4	23.2	0.0	0.0	AHD				
	573.3	145.9	0.0			853.8	22.8	0.0	65.3		952.2	27.3	0.0	0.0		408.5	66.7	0.0	90.7

Land at South Tees Development Corporation
Junction Statistics

J-38

2025 Do Something 12:30 - 13:30 IP

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	581.3	6.7	0.0	46.9	AHB	322.8	24.8	0.0	40.1	LTC	44.3	31.4	0.0	0.0	ALL	362.9	11.4	0.0	51.5
					LTB	407.1	4.4	0.0	40.1	AHC	562.9	23.2	0.0	0.0					
	581.3	6.7	0.0			729.9	14.6	0.0	40.1		607.2	27.3	0.0	0.0		362.9	11.4	0.0	51.5

J-38

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	606.5	6.8	0.0	48.4	LTB	322.8	24.8	0.0	40.1	LTC	44.3	31.4	0.0	0.0	LTD	339.6	10.7	0.0	48.0
					AHB	407.1	4.4	0.0	40.1	AHC	561.6	23.2	0.0	0.0	AHD				
	606.5	6.8	0.0			729.9	14.6	0.0	40.1		605.9	27.3	0.0	0.0		339.6	10.7	0.0	48.0

Land at South Tees Development Corporation
Junction Statistics

J-38

2025 Do Something 16:30 - 17:30 PM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	907.2	15.3	0.0	78.3	AHB	425.3	26.2	0.0	54.4	LTC	5.0	31.4	0.0	0.0	ALL	477.0	23.1	0.0	75.1
					LTB	485.4	5.8	0.0	54.4	AHC	695.4	23.2	0.0	0.0					
	907.2	15.3	0.0			910.8	16.0	0.0	54.4		700.4	27.3	0.0	0.0		477.0	23.1	0.0	75.1

J-38

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	914.6	15.6	0.0	78.8	LTB	425.3	26.2	0.0	54.5	LTC	5.0	31.4	0.0	0.0	LTD	472.5	22.3	0.0	74.2
					AHB	485.4	5.8	0.0	54.5	AHC	695.3	23.2	0.0	0.0	AHD				
	914.6	15.6	0.0			910.8	16.0	0.0	54.5		700.3	27.3	0.0	0.0		472.5	22.3	0.0	74.2

Land at South Tees Development Corporation
Junction Statistics

J-38

2030 Do Something 08:00 - 09:00 AM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	574.8	173.7	0.0	105.0	AHB	309.4	42.8	0.0	84.5	LTC	13.8	31.4	0.0	0.0	ALL	332.6	81.9	0.0	91.3
					LTB	563.0	5.1	0.0	49.3	AHC	1080.5	23.2	0.0	0.0					
	574.8	173.7	0.0			872.4	24.0	0.0	66.9		1094.2	27.3	0.0	0.0		332.6	81.9	0.0	91.3

J-38

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	578.3	179.1	0.0	105.5	LTB	319.8	43.0	0.0	84.6	LTC	13.3	31.4	0.0	0.0	LTD	338.4	84.1	0.0	91.9
					AHB	552.6	5.1	0.0	49.4	AHC	1074.3	23.2	0.0	0.0	AHD				
	578.3	179.1	0.0			872.4	24.0	0.0	67.0		1087.6	27.3	0.0	0.0		338.4	84.1	0.0	91.9

Land at South Tees Development Corporation
Junction Statistics

J-38

2030 Do Something 12:30 - 13:30 IP

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	593.1	7.0	0.0	48.7	AHB	328.8	24.9	0.0	41.5	LTC	45.1	31.4	0.0	0.0	ALL	400.5	13.5	0.0	58.4
					LTB	416.5	4.5	0.0	41.5	AHC	593.4	23.2	0.0	0.0					
	593.1	7.0	0.0			745.3	14.7	0.0	41.5		638.4	27.3	0.0	0.0		400.5	13.5	0.0	58.4

J-38

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	635.0	7.1	0.0	51.0	LTB	328.8	24.9	0.0	41.4	LTC	45.1	31.4	0.0	0.0	LTD	349.9	11.5	0.0	50.7
					AHB	416.5	4.5	0.0	41.4	AHC	592.2	23.2	0.0	0.0	AHD				
	635.0	7.1	0.0			745.3	14.7	0.0	41.4		637.2	27.3	0.0	0.0		349.9	11.5	0.0	50.7

Land at South Tees Development Corporation
Junction Statistics

J-38

2030 Do Something 16:30 - 17:30 PM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	953.4	18.8	0.0	82.8	AHB	429.2	26.5	0.0	56.4	LTC	5.1	31.4	0.0	0.0	ALL	493.5	30.6	0.0	81.1
					LTB	499.7	6.1	0.0	56.4	AHC	726.5	23.2	0.0	0.0					
	953.4	18.8	0.0	82.8		928.9	16.3	0.0	56.4		731.6	27.3	0.0	0.0		493.5	30.6	0.0	81.1

J-38

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Ormesby Bank					B: Middlesbrough Road					C: A1043 Nunthorpe Bypass					D: Guisborough Road				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	970.1	19.5	0.0	83.7	LTB	428.7	26.6	0.0	56.5	LTC	5.1	31.4	0.0	0.0	LTD	478.2	26.9	0.0	78.2
					AHB	500.2	6.1	0.0	56.5	AHC	726.3	23.2	0.0	0.0	AHD				
	970.1	19.5	0.0	83.7		928.9	16.3	0.0	56.5		731.4	27.3	0.0	0.0		478.2	26.9	0.0	78.2

Land at South Tees Development Corporation
Junction Statistics

J-39

2019 Base 08:00 - 09:00 AM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	475.7	2.2	0.0	0.0	LTB	86.2	13.0	0.2	14.4	AHC	919.7	1.3	0.0	0.0	LTD	0.0	20.1	0.0	0.0
					AHB	5.1	112.1	5.4	2.0	RTC	184.2	16.2	0.5	32.8	RTD	0.4	16.7	0.0	0.1
					RTB	220.7	121.8	5.2	85.3										
	475.7	2.2	0.0			312.0	82.3	3.6	33.9		1103.9	8.8	0.2	16.4		0.4	18.4	0.0	0.1

J-39

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	475.7	2.2	0.0	0.0	LTB	86.2	13.0	0.2	13.0	LTC	919.7	1.3	0.0	1.3	LTD	0.0	20.1	0.0	20.1
					AHB	5.1	112.1	5.4	112.1	AHC	184.2	16.2	0.5	16.2	AHD	0.4	16.7	0.0	16.7
					RTB	220.7	121.8	5.2	121.8	RTC					RTD				
	475.7	2.2	0.0			312.0	82.3	3.6	82.3		1103.9	8.8	0.2	8.8		0.4	18.4	0.0	18.4

Land at South Tees Development Corporation
Junction Statistics

J-39

2019 Base 12:30 - 13:30 IP

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	519.7	2.2	0.0	0.0	LTB	121.2	13.8	0.3	20.9	AHC	511.4	1.3	0.0	0.0	LTD	0.2	18.5	0.2	0.0
					AHB	2.1	37.8	0.3	0.7	RTC	80.5	14.4	0.2	14.7	RTD	60.6	16.2	0.2	18.5
					RTB	76.4	50.0	0.3	23.3										
	519.7	2.2	0.0		199.7	33.9	0.3	15.0		591.9	7.9	0.1	7.3		60.7	17.4	0.2	9.3	

J-39

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	519.7	2.2	0.0	0.0	LTB	121.2	13.8	0.3	13.8	LTC	511.4	1.3	0.0	1.3	LTD	0.2	18.5	0.2	18.5
					AHB	2.1	37.8	0.3	37.8	AHC	80.5	14.4	0.2	14.4	AHD	60.6	16.2	0.2	16.2
					RTB	76.4	50.0	0.3	50.0	RTC					RTD				
	519.7	2.2	0.0		199.7	33.9	0.3	33.9		591.9	7.9	0.1	7.9		60.7	17.4	0.2	17.4	

Land at South Tees Development Corporation
Junction Statistics

J-39

2019 Base 16:30 - 17:30 PM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	779.8	2.2	0.0	0.0	LTB	193.6	16.3	0.6	35.8	AHC	691.3	1.3	0.0	0.0	LTD	0.0	18.2	0.0	0.0
					AHB	6.8	173.2	9.6	2.7	RTC	120.4	16.7	0.3	25.1	RTD	0.0	16.9	0.0	0.0
					RTB	226.8	138.5	6.4	88.0										
	779.8	2.2	0.0			427.2	109.3	5.5	42.2		811.7	9.0	0.2	12.5		0.0	17.6	0.0	0.0

J-39

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	779.8	2.2	0.0	0.0	LTB	193.6	16.3	0.6	16.3	LTC	691.3	1.3	0.0	1.3	LTD	0.0	18.2	0.0	18.2
					AHB	6.8	173.2	9.6	173.2	AHC	120.4	16.7	0.3	16.7	AHD	0.0	16.9	0.0	16.9
					RTB	226.8	138.5	6.4	138.5	RTC					RTD				
	779.8	2.2	0.0			427.2	109.3	5.5	109.3		811.7	9.0	0.2	9.0		0.0	17.6	0.0	17.6

Land at South Tees Development Corporation
Junction Statistics

J-39

2025 Do Something 08:00 - 09:00 AM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	487.1	2.2	0.0	0.0	LTB	130.7	13.7	0.3	21.9	AHC	1101.7	1.3	0.0	0.0	LTD	0.1	22.1	0.0	0.0
					AHB	0.8	296.0	14.7	0.4	RTC	220.9	17.4	0.7	39.6	RTD	0.4	20.1	0.0	0.2
					RTB	215.3	266.4	12.4	103.1										
	487.1	2.2	0.0			346.8	192.0	9.1	41.8		1322.6	9.3	0.3	19.8		0.5	21.1	0.0	0.1

J-39

2025 Do Minimum 08:00 - 09:00 AM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	484.5	2.2	0.0	0.0	LTB	118.9	13.5	0.2	19.9	LTC	1059.1	1.3	0.0	0.0	LTD	0.1	21.7	0.0	0.0
					AHB	1.4	141.5	6.0	0.7	AHC	220.6	17.3	0.6	39.5	AHD	0.4	19.7	0.0	0.2
					RTB	189.9	149.7	5.8	89.1	RTC					RTD				
	484.5	2.2	0.0			310.2	101.6	4.0	36.6		1279.7	9.3	0.3	19.7		0.5	20.7	0.0	0.1

Land at South Tees Development Corporation
Junction Statistics

J-39

2025 Do Something 12:30 - 13:30 IP

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	620.3	2.2	0.0	0.0	LTB	135.1	14.4	0.3	24.0	AHC	677.3	1.3	0.0	0.0	LTD	3.6	19.8	0.2	0.9
					AHB	2.1	50.7	1.1	0.8	RTC	107.7	15.4	0.3	20.6	RTD	57.5	19.3	0.3	20.6
					RTB	136.6	61.3	1.0	49.1										
	620.3	2.2	0.0			273.9	42.1	0.8	24.7		784.9	8.4	0.1	10.3		61.0	19.5	0.2	10.8

J-39

2025 Do Minimum 12:30 - 13:30 IP

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	645.5	2.2	0.0	0.0	LTB	135.1	14.5	0.3	24.2	LTC	628.5	1.3	0.0	0.0	LTD	3.6	19.4	0.2	0.9
					AHB	2.1	44.4	0.6	0.8	AHC	107.5	15.5	0.3	20.8	AHD	57.5	19.6	0.3	20.9
					RTB	95.6	55.9	0.5	34.8	RTC					RTD				
	645.5	2.2	0.0			232.8	38.3	0.5	20.0		736.0	8.4	0.1	10.4		61.0	19.5	0.2	10.9

Land at South Tees Development Corporation
Junction Statistics

J-39

2025 Do Something 16:30 - 17:30 PM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	867.6	2.2	0.0	0.0	LTB	231.2	18.6	0.8	44.9	AHC	828.1	1.3	0.0	0.0	LTD	0.2	19.2	0.0	0.0
					AHB	2.1	813.1	41.7	1.1	RTC	152.3	18.5	0.5	33.3	RTD	0.0	22.2	0.0	0.0
					RTB	207.6	294.2	13.3	104.4										
	867.6	2.2	0.0			441.0	375.3	18.6	50.1		980.4	9.9	0.2	16.7		0.2	20.7	0.0	0.0

J-39

2025 Do Minimum 16:30 - 17:30 PM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	875.0	2.2	0.0	0.0	LTB	224.4	18.2	0.8	43.4	LTC	801.9	1.3	0.0	0.0	LTD	0.2	19.0	0.0	0.0
					AHB	2.1	628.5	32.4	1.1	AHC	152.2	18.6	0.5	33.5	AHD	0.0	21.4	0.0	0.0
					RTB	207.2	265.7	12.0	102.1	RTC					RTD				
	875.0	2.2	0.0			433.7	304.1	15.0	48.9		954.1	10.0	0.3	16.7		0.2	20.2	0.0	0.0

Land at South Tees Development Corporation
Junction Statistics

J-39

2030 Do Something 08:00 - 09:00 AM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	494.9	2.2	0.0	0.0	LTB	224.8	15.8	0.6	38.2	AHC	1267.6	1.3	0.0	0.0	LTD	0.1	24.6	0.0	0.0
					AHB	0.5	725.6	28.9	0.3	RTC	247.4	18.3	0.8	44.5	RTD	0.4	27.5	0.0	0.3
					RTB	162.6	321.2	11.3	104.9										
	494.9	2.2	0.0			387.9	354.2	13.6	47.8		1515.0	9.8	0.4	22.2		0.5	26.0	0.0	0.1

J-39

2030 Do Minimum 08:00 - 09:00 AM

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	494.7	2.2	0.0	0.0	LTB	123.9	13.6	0.3	20.8	LTC	1145.5	1.3	0.0	0.0	LTD	0.1	22.9	0.0	0.0
					AHB	1.0	248.8	10.5	0.5	AHC	247.2	18.3	0.8	44.4	AHD	0.4	22.4	0.0	0.2
					RTB	181.2	227.8	8.9	98.0	RTC					RTD				
	494.7	2.2	0.0			306.0	163.4	6.5	39.8		1392.7	9.8	0.4	22.2		0.5	22.6	0.0	0.1

Land at South Tees Development Corporation
Junction Statistics

J-39

2030 Do Something 12:30 - 13:30 IP

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	636.2	2.2	0.0	0.0	LTB	149.4	14.7	0.4	26.7	AHC	808.2	1.3	0.0	0.0	LTD	3.5	21.2	0.2	1.0
					AHB	2.1	105.3	4.6	0.9	RTC	132.5	16.0	0.3	25.6	RTD	58.9	21.3	0.3	23.0
					RTB	205.2	101.5	3.7	80.1										
	636.2	2.2	0.0			356.7	73.9	2.9	35.9		940.8	8.7	0.2	12.8		62.4	21.2	0.3	12.0

J-39

2030 Do Minimum 12:30 - 13:30 IP

A: A171 Ormesby Nak (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	678.9	2.2	0.0	0.0	LTB	149.4	14.9	0.4	27.1	LTC	696.5	1.3	0.0	0.0	LTD	4.0	20.2	0.2	1.1
					AHB	2.1	50.4	0.8	0.9	AHC	131.9	16.3	0.4	26.0	AHD	58.4	21.9	0.3	23.3
					RTB	106.5	61.0	0.8	42.6	RTC					RTD				
	678.9	2.2	0.0			257.9	42.1	0.7	23.5		828.4	8.8	0.2	13.0		62.4	21.0	0.3	12.2

Land at South Tees Development Corporation
Junction Statistics

J-39

2030 Do Something 16:30 - 17:30 PM

A: A171 Ormesby Bank (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
ALL	911.9	2.2	0.0	0.0	LTB	277.7	22.5	1.3	56.2	AHC	950.1	1.3	0.0	0.0	LTD	0.2	20.3	0.0	0.0
					AHB	1.8	1961.7	76.0	1.2	RTC	177.9	20.2	0.7	40.0	RTD	0.0	32.9	0.0	0.0
					RTB	158.8	370.3	12.7	107.5										
	911.9	2.2	0.0	0.0		438.3	784.8	30.0	55.0		1128.0	10.7	0.3	20.0		0.2	26.6	0.0	0.0

J-39

2030 Do Minimum 16:30 - 17:30 PM

A: A171 Ormesby Bank (North)					B: A174 Westbound Off-Slip					C: A171 Ormesby Road (South)					D: Church Lane				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	929.0	2.2	0.0	0.0	LTB	248.3	20.3	1.0	49.8	LTC	885.4	1.3	0.0	0.0	LTD	0.2	19.8	0.0	0.0
					AHB	1.9	1346.3	56.3	1.2	AHC	177.9	20.4	0.7	40.4	AHD	0.0	28.3	0.0	0.0
					RTB	172.0	354.0	13.2	107.1	RTC					RTD				
	929.0	2.2	0.0	0.0		422.3	573.5	23.5	52.7		1063.3	10.9	0.3	20.2		0.2	24.0	0.0	0.0

Land at South Tees Development Corporation
Junction Statistics

J-40

2019 Base 08:00 - 09:00 AM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1083.2	26.4	0.0	87.0	LTB	49.7	7.9	0.0	7.2	LTC	320.9	14.2	0.0	52.1
					AHB	285.6	10.3	0.0	41.4	AHC	364.0	6.5	0.0	52.1
	1083.2	26.4	0.0			335.3	9.1	0.0	24.3		684.9	10.4	0.0	52.1

J-40

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	1083.2	26.4	0.0	87.0	LTB	49.7	7.9	0.0	7.9	LTC	320.9	14.2	0.0	14.2
					AHB	285.6	10.3	0.0	10.3	AHC	364.0	6.5	0.0	6.5
	1083.2	26.4	0.0			335.3	9.1	0.0	9.1	RTC	684.9	10.4	0.0	10.4

Land at South Tees Development Corporation
Junction Statistics

J-40

2019 Base 12:30 - 13:30 IP

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	589.7	11.4	0.0	49.2	LTB	221.3	9.8	0.0	31.7	LTC	444.4	15.4	0.0	60.1
					AHB	371.9	12.4	0.0	53.3	AHC	337.9	7.7	0.0	60.1
	589.7	11.4	0.0			593.2	11.1	0.0	42.5		782.4	11.5	0.0	60.1

J-40

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	589.7	11.4	0.0	49.2	LTB	221.3	9.8	0.0	9.8	LTC	444.4	15.4	0.0	15.4
					AHB	371.9	12.4	0.0	12.4	AHC	337.9	7.7	0.0	7.7
	589.7	11.4	0.0			593.2	11.1	0.0	11.1	RTC	782.4	11.5	0.0	11.5

Land at South Tees Development Corporation
Junction Statistics

J-40

2019 Base 16:30 - 17:30 PM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	736.5	13.6	0.0	62.4	LTB	180.0	11.4	0.0	31.4	LTC	494.4	62.7	0.0	97.5
					AHB	407.9	22.7	0.0	71.1	AHC	739.4	55.1	0.0	97.5
	736.5	13.6	0.0			587.9	17.0	0.0	51.2		1233.8	58.9	0.0	97.5

J-40

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	736.5	13.6	0.0	62.4	LTB	180.0	11.4	0.0	11.4	LTC	494.4	62.7	0.0	62.7
					AHB	407.9	22.7	0.0	22.7	AHC	739.4	55.1	0.0	55.1
	736.5	13.6	0.0			587.9	17.0	0.0	17.0	RTC	1233.8	58.9	0.0	58.9

Land at South Tees Development Corporation
Junction Statistics

J-40

2025 Do Something 08:00 - 09:00 AM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1211.3	67.8	0.0	98.4	LTB	50.2	8.0	0.0	7.5	LTC	339.8	15.2	0.0	59.0
					AHB	313.1	11.4	0.0	46.7	AHC	426.5	7.5	0.0	59.0
	1211.3	67.8	0.0			363.3	9.7	0.0	27.1		766.3	11.4	0.0	59.0

J-40

2025 Do Minimum 08:00 - 09:00 AM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1218.6	69.0	0.0	98.6	LTB	51.1	8.0	0.0	7.6	LTC	347.4	15.3	0.0	59.6
					AHB	303.4	11.2	0.0	45.3	AHC	426.9	7.6	0.0	59.6
	1218.6	69.0	0.0			354.5	9.6	0.0	26.5	RTC	774.3	11.5	0.0	59.6

Land at South Tees Development Corporation
Junction Statistics

J-40

2025 Do Something 12:30 - 13:30 IP

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	622.5	11.8	0.0	52.2	LTB	223.6	10.2	0.0	33.1	LTC	455.2	16.7	0.0	66.4
					AHB	384.7	13.7	0.0	57.0	AHC	409.0	9.0	0.0	66.4
	622.5	11.8	0.0			608.3	11.9	0.0	45.0		864.2	12.8	0.0	66.4

J-40

2025 Do Minimum 12:30 - 13:30 IP

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	622.9	11.8	0.0	52.2	LTB	223.6	10.2	0.0	33.1	LTC	455.2	16.6	0.0	66.2
					AHB	384.7	13.7	0.0	56.9	AHC	406.7	8.9	0.0	66.2
	622.9	11.8	0.0			608.3	11.9	0.0	45.0	RTC	861.9	12.8	0.0	66.2

Land at South Tees Development Corporation
Junction Statistics

J-40

2025 Do Something 16:30 - 17:30 PM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	863.3	17.3	0.0	74.0	LTB	161.3	11.2	0.0	28.7	LTC	472.5	85.6	0.0	100.2
					AHB	434.7	28.6	0.0	77.4	AHC	777.5	77.9	0.0	100.2
	863.3	17.3	0.0			596.0	19.9	0.0	53.0		1250.1	81.8	0.0	100.2

J-40

2025 Do Minimum 16:30 - 17:30 PM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	863.5	17.2	0.0	74.0	LTB	165.5	11.3	0.0	29.4	LTC	473.8	82.8	0.0	99.9
					AHB	433.3	28.1	0.0	76.9	AHC	772.7	75.1	0.0	99.9
	863.5	17.2	0.0			598.8	19.7	0.0	53.1	RTC	1246.5	78.9	0.0	99.9

Land at South Tees Development Corporation
Junction Statistics

J-40

2030 Do Something 08:00 - 09:00 AM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1207.4	65.1	0.0	98.1	LTB	52.4	8.1	0.0	7.9	LTC	363.7	15.9	0.0	63.0
					AHB	312.2	11.7	0.0	47.2	AHC	455.5	8.2	0.0	63.0
	1207.4	65.1	0.0			364.6	9.9	0.0	27.6		819.2	12.1	0.0	63.0

J-40

2030 Do Minimum 08:00 - 09:00 AM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1212.3	67.6	0.0	98.4	LTB	52.2	8.1	0.0	7.9	LTC	362.2	15.8	0.0	62.3
					AHB	310.7	11.6	0.0	46.8	AHC	449.1	8.1	0.0	62.3
	1212.3	67.6	0.0			362.9	9.8	0.0	27.4	RTC	811.3	12.0	0.0	62.3

Land at South Tees Development Corporation
Junction Statistics

J-40

2030 Do Something 12:30 - 13:30 IP

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	647.0	12.2	0.0	54.5	LTB	229.0	10.4	0.0	34.2	LTC	469.8	17.4	0.0	69.2
					AHB	396.3	14.5	0.0	59.2	AHC	430.3	9.7	0.0	69.2
	647.0	12.2	0.0			625.3	12.5	0.0	46.7		900.1	13.6	0.0	69.2

J-40

2030 Do Minimum 12:30 - 13:30 IP

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	646.0	12.2	0.0	54.5	LTB	226.0	10.3	0.0	33.7	LTC	466.2	17.2	0.0	68.4
					AHB	398.7	14.5	0.0	59.4	AHC	423.8	9.5	0.0	68.4
	646.0	12.2	0.0			624.7	12.4	0.0	46.5	RTC	890.0	13.3	0.0	68.4

Land at South Tees Development Corporation
Junction Statistics

J-40

2030 Do Something 16:30 - 17:30 PM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	890.1	18.9	0.0	77.0	LTB	169.1	11.3	0.0	29.8	LTC	490.9	91.7	0.0	100.8
					AHB	455.4	31.9	0.0	80.3	AHC	759.7	84.0	0.0	100.8
	890.1	18.9	0.0	77.0		624.5	21.6	0.0	55.0		1250.5	87.9	0.0	100.8

J-40

2030 Do Minimum 16:30 - 17:30 PM

A: Stainton Way (East)					B: Dalby Way					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	882.4	18.4	0.0	76.2	LTB	177.9	11.5	0.0	31.5	LTC	491.5	93.5	0.0	101.0
					AHB	451.5	31.4	0.0	79.8	AHC	765.5	85.9	0.0	101.0
	882.4	18.4	0.0	76.2		629.4	21.4	0.0	55.6	RTC	1256.9	89.7	0.0	101.0

Land at South Tees Development Corporation
Junction Statistics

J-41

2019 Base 08:00 - 09:00 AM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1241.6	45.3	0.0	92.1	LTB	1.6	12.4	0.0	55.6	LTC	101.1	12.2	0.0	64.6
					AHB	422.2	12.5	0.0	55.6	AHC	683.4	7.7	0.0	52.4
	1241.6	45.3	0.0			423.8	12.5	0.0	55.6		784.4	10.0	0.0	58.5

J-41

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	1241.6	45.3	0.0	92.1	LTB	1.6	12.4	0.0	12.4	LTC	101.1	12.2	0.0	12.2
AHA					AHB	422.2	12.5	0.0	12.5	AHC	683.4	7.7	0.0	7.7
	1241.6	45.3	0.0			423.8	12.5	0.0	12.5		784.4	10.0	0.0	10.0

Land at South Tees Development Corporation
Junction Statistics

J-41

2019 Base 12:30 - 13:30 IP

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	812.5	21.1	0.0	52.4	LTB	0.0	7.0	0.0	1.2	LTC	234.3	12.9	0.0	71.9
					AHB	8.2	7.0	0.0	1.2	AHC	782.3	7.9	0.0	59.9
	812.5	21.1	0.0			8.2	7.0	0.0	1.2		1016.6	10.4	0.0	65.9

J-41

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	812.5	21.1	0.0	52.4	LTB	0.0	7.0	0.0	7.0	LTC	234.3	12.9	0.0	12.9
AHA					AHB	8.2	7.0	0.0	7.0	AHC	782.3	7.9	0.0	7.9
	812.5	21.1	0.0			8.2	7.0	0.0	7.0		1016.6	10.4	0.0	10.4

Land at South Tees Development Corporation
Junction Statistics

J-41

2019 Base 16:30 - 17:30 PM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	925.6	23.0	0.0	63.8	LTB	120.9	18.8	0.0	59.8	LTC	134.5	47.9	0.0	96.0
					AHB	192.0	18.9	0.0	59.8	AHC	1133.6	13.2	0.0	79.0
	925.6	23.0	0.0			312.9	18.8	0.0	59.8		1268.1	30.5	0.0	87.5

J-41

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	925.6	23.0	0.0	63.8	LTB	120.9	18.8	0.0	18.8	LTC	134.5	47.9	0.0	47.9
AHA					AHB	192.0	18.9	0.0	18.9	AHC	1133.6	13.2	0.0	13.2
	925.6	23.0	0.0			312.9	18.8	0.0	18.8		1268.1	30.5	0.0	30.5

Land at South Tees Development Corporation
Junction Statistics

J-41

2025 Do Something 08:00 - 09:00 AM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1368.8	109.0	0.0	102.0	LTB	1.4	14.1	0.0	59.5	LTC	99.5	14.2	0.0	71.4
					AHB	426.6	14.2	0.0	59.5	AHC	765.0	8.4	0.0	57.9
	1368.8	109.0	0.0			427.9	14.2	0.0	59.5		864.5	11.3	0.0	64.6

J-41

2025 Do Minimum 08:00 - 09:00 AM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1367.4	104.9	0.0	101.6	LTB	1.7	14.3	0.0	59.8	LTC	101.5	14.5	0.0	72.1
AHA					AHB	426.2	14.4	0.0	59.8	AHC	772.6	8.4	0.0	58.5
	1367.4	104.9	0.0			427.9	14.3	0.0	59.8		874.1	11.4	0.0	65.3

Land at South Tees Development Corporation
Junction Statistics

J-41

2025 Do Something 12:30 - 13:30 IP

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	858.0	21.4	0.0	55.5	LTB	0.2	7.3	0.0	1.4	LTC	236.2	15.2	0.0	77.9
					AHB	9.3	7.4	0.0	1.4	AHC	864.0	8.7	0.0	64.9
	858.0	21.4	0.0			9.5	7.3	0.0	1.4		1100.2	11.9	0.0	71.4

J-41

2025 Do Minimum 12:30 - 13:30 IP

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	858.5	21.4	0.0	55.4	LTB	0.2	7.3	0.0	1.4	LTC	236.2	15.1	0.0	77.7
AHA					AHB	9.3	7.4	0.0	1.4	AHC	861.8	8.6	0.0	64.7
	858.5	21.4	0.0			9.5	7.3	0.0	1.4		1097.9	11.9	0.0	71.2

Land at South Tees Development Corporation
Junction Statistics

J-41

2025 Do Something 16:30 - 17:30 PM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1043.5	25.1	0.0	72.4	LTB	114.9	20.1	0.0	61.8	LTC	125.3	57.6	0.0	97.6
					AHB	200.6	20.2	0.0	61.8	AHC	1158.3	13.9	0.0	80.3
	1043.5	25.1	0.0			315.5	20.2	0.0	61.8		1283.6	35.7	0.0	89.0

J-41

2025 Do Minimum 16:30 - 17:30 PM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1042.6	25.0	0.0	72.2	LTB	114.9	19.9	0.0	61.6	LTC	125.4	55.9	0.0	97.3
AHA					AHB	200.7	20.0	0.0	61.6	AHC	1154.8	13.7	0.0	80.1
	1042.6	25.0	0.0			315.5	20.0	0.0	61.6		1280.2	34.8	0.0	88.7

Land at South Tees Development Corporation
Junction Statistics

J-41

2030 Do Something 08:00 - 09:00 AM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1366.7	111.3	0.0	102.2	LTB	1.6	15.9	0.0	63.3	LTC	98.0	16.2	0.0	76.0
					AHB	435.9	16.0	0.0	63.3	AHC	817.6	8.9	0.0	61.6
	1366.7	111.3	0.0			437.5	15.9	0.0	63.3		915.6	12.5	0.0	68.8

J-41

2030 Do Minimum 08:00 - 09:00 AM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1372.5	113.4	0.0	102.3	LTB	1.9	15.7	0.0	62.9	LTC	106.9	16.0	0.0	75.8
AHA					AHB	435.6	15.7	0.0	62.9	AHC	809.4	8.9	0.0	61.4
	1372.5	113.4	0.0			437.5	15.7	0.0	62.9		916.3	12.4	0.0	68.6

Land at South Tees Development Corporation
Junction Statistics

J-41

2030 Do Something 12:30 - 13:30 IP

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	890.8	21.6	0.0	57.6	LTB	0.2	7.5	0.0	1.6	LTC	241.5	16.9	0.0	80.8
					AHB	10.4	7.6	0.0	1.6	AHC	899.8	9.1	0.0	67.3
	890.8	21.6	0.0			10.7	7.5	0.0	1.6		1141.3	13.0	0.0	74.1

J-41

2030 Do Minimum 12:30 - 13:30 IP

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	892.1	21.6	0.0	57.6	LTB	0.3	7.4	0.0	1.6	LTC	241.5	16.4	0.0	80.1
AHA					AHB	10.4	7.5	0.0	1.6	AHC	889.7	9.0	0.0	66.7
	892.1	21.6	0.0			10.7	7.5	0.0	1.6		1131.3	12.7	0.0	73.4

Land at South Tees Development Corporation
Junction Statistics

J-41

2030 Do Something 16:30 - 17:30 PM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
ALL	1077.8	27.1	0.0	76.9	LTB	114.0	25.7	0.0	68.6	LTC	58.0	89.7	0.0	101.2
					AHB	209.0	25.8	0.0	68.6	AHC	1232.3	15.7	0.0	82.8
	1077.8	27.1	0.0	76.9		323.0	25.7	0.0	68.6		1290.3	52.7	0.0	92.0

J-41

2030 Do Minimum 16:30 - 17:30 PM

A: Stainton Way (East)					B: The King's Academy					C: Stainton Way (West)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	1073.9	26.9	0.0	76.5	LTB	117.2	26.5	0.0	69.3	LTC	51.4	95.1	0.0	101.7
AHA					AHB	205.8	26.5	0.0	69.3	AHC	1241.6	16.0	0.0	83.2
	1073.9	26.9	0.0	76.5		323.0	26.5	0.0	69.3		1293.0	55.5	0.0	92.4

J-42

2019 Base 08:00 - 09:00 AM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	11.5	46.0	6.0	48.3	LTB	2.2	28.4	4.9	32.6	LTC	0.0	-1.0	-1.0	-1.0	LTD	41.6	24.9	4.6	30.9
AHA	163.2	33.4	6.0	48.3	AHB	151.3	22.7	4.6	21.7	AHC	403.3	59.1	21.8	96.8	AHD	151.1	23.8	4.6	30.9
RTA	54.1	43.3	6.0	27.0	RTB	77.4	33.8	4.9	28.2	RTC	52.0	41.0	21.8	24.5	RTD	26.0	28.0	4.6	8.4
	228.8	40.9	6.0			230.9	28.3	4.8	27.5		455.3	33.0	14.2	40.1		218.6	25.6	4.6	23.4

J-42

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	11.5	46.0	6.0	48.3	LTB	2.2	28.4	4.9	28.4	LTC	0.0	-1.0	-1.0	-1.0	LTD	41.6	24.9	4.6	24.9
AHA	163.2	33.4	6.0	48.3	AHB	151.3	22.7	4.6	22.7	AHC	403.3	59.1	21.8	59.1	AHD	151.1	23.8	4.6	23.8
RTA	54.1	43.3	6.0	27.0	RTB	77.4	33.8	4.9	33.8	RTC	52.0	41.0	21.8	41.0	RTD	26.0	28.0	4.6	28.0
	228.8	40.9	6.0			230.9	28.3	4.8	28.3		455.3	33.0	14.2	33.0		218.6	25.6	4.6	25.6

J-42

2019 Base 12:30 - 13:30 IP

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	72.7	46.8	7.3	63.7	LTB	2.2	27.9	5.6	39.3	LTC	0.0	-1.0	-1.0	-1.0	LTD	63.0	25.1	6.2	42.9
AHA	164.4	34.3	7.3	63.7	AHB	175.9	22.0	5.1	26.2	AHC	234.9	33.3	6.2	56.7	AHD	189.3	24.0	6.2	42.9
RTA	38.9	40.5	7.3	18.7	RTB	92.2	34.1	5.6	34.1	RTC	9.1	36.4	6.2	4.4	RTD	43.1	27.8	6.2	13.8
	276.0	40.5	7.3			270.2	28.0	5.4	33.2		244.0	22.9	3.8	20.0		295.4	25.6	6.2	33.2

J-42

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	72.7	46.8	7.3	63.7	LTB	2.2	27.9	5.6	27.9	LTC	0.0	-1.0	-1.0	-1.0	LTD	63.0	25.1	6.2	25.1
AHA	164.4	34.3	7.3	63.7	AHB	175.9	22.0	5.1	22.0	AHC	234.9	33.3	6.2	33.3	AHD	189.3	24.0	6.2	24.0
RTA	38.9	40.5	7.3	18.7	RTB	92.2	34.1	5.6	34.1	RTC	9.1	36.4	6.2	36.4	RTD	43.1	27.8	6.2	27.8
	276.0	40.5	7.3			270.2	28.0	5.4	28.0		244.0	22.9	3.8	22.9		295.4	25.6	6.2	25.6

J-42

2019 Base 16:30 - 17:30 PM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	1.1	96.8	23.4	100.7	LTB	139.6	29.1	7.2	48.2	LTC	0.0	-1.0	-1.0	-1.0	LTD	74.9	25.2	6.3	43.5
AHA	342.2	84.3	23.4	100.7	AHB	96.2	22.6	6.5	32.1	AHC	228.0	33.0	5.9	54.3	AHD	199.2	24.1	6.3	43.5
RTA	92.6	47.1	23.4	44.4	RTB	95.7	34.4	7.2	35.4	RTC	5.5	36.1	5.9	2.8	RTD	25.6	27.0	6.3	8.3
	435.9	76.1	23.4			331.5	28.7	7.0	38.6		233.6	22.7	3.6	18.7		299.7	25.4	6.3	31.8

J-42

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12		8	12	15	12
LTA	1.1	96.8	23.4	100.7	LTB	139.6	29.1	7.2	29.1	LTC	0.0	-1.0	-1.0	-1.0	LTD	74.9	25.2	6.3	25.2
AHA	342.2	84.3	23.4	100.7	AHB	96.2	22.6	6.5	22.6	AHC	228.0	33.0	5.9	33.0	AHD	199.2	24.1	6.3	24.1
RTA	92.6	47.1	23.4	44.4	RTB	95.7	34.4	7.2	34.4	RTC	5.5	36.1	5.9	36.1	RTD	25.6	27.0	6.3	27.0
	435.9	76.1	23.4			331.5	28.7	7.0	28.7		233.6	22.7	3.6	22.7		299.7	25.4	6.3	25.4

Land at South Tees Development Corporation
Junction Statistics

J-42

2025 Do Something 08:00 - 09:00 AM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	5.8	48.7	9.0	66.2	LTB	2.5	28.7	5.4	35.2	LTC	0.0	-1.0	-1.0	-1.0	LTD	45.2	25.8	6.0	38.6
AHA	227.7	36.1	9.0	66.2	AHB	148.4	22.9	5.0	23.5	AHC	356.1	85.7	26.6	100.6	AHD	181.1	24.7	6.0	38.6
RTA	79.9	47.1	9.0	40.0	RTB	98.7	35.9	5.4	36.5	RTC	117.1	52.0	26.6	56.3	RTD	47.6	29.1	6.0	15.4
	313.4	43.9	9.0			249.5	29.1	5.3	31.7		473.2	45.6	17.4	52.0		273.9	26.5	6.0	30.9

J-42

2025 Do Minimum 08:00 - 09:00 AM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	18.0	48.5	8.9	65.4	LTB	0.9	28.4	5.1	33.4	LTC	0.0	-1.0	-1.0	-1.0	LTD	40.3	25.8	6.0	38.4
AHA	209.1	35.9	8.9	65.4	AHB	139.3	22.7	4.7	22.3	AHC	359.6	85.5	26.6	100.6	AHD	183.8	24.7	6.0	38.4
RTA	82.5	47.5	8.9	41.3	RTB	96.4	35.6	5.1	35.7	RTC	113.5	51.1	26.6	54.5	RTD	47.7	29.1	6.0	15.4
	309.6	44.0	8.9			236.5	28.9	5.0	30.4		473.1	45.2	17.4	51.4		271.8	26.5	6.0	30.7

Land at South Tees Development Corporation
Junction Statistics

J-42

2025 Do Something 12:30 - 13:30 IP

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	82.9	59.8	16.0	93.1	LTB	9.1	28.8	6.8	46.3	LTC	0.0	-1.0	-1.0	-1.0	LTD	70.2	25.7	7.1	47.5
AHA	236.5	47.2	16.0	93.1	AHB	162.9	22.5	6.2	30.9	AHC	276.5	35.5	8.4	70.3	AHD	203.5	24.6	7.1	47.5
RTA	83.8	46.0	16.0	40.8	RTB	146.6	40.6	6.8	54.7	RTC	25.8	37.8	8.4	12.8	RTD	53.4	28.3	7.1	17.3
	403.2	51.0	16.0			318.5	30.6	6.6	43.9		302.3	24.1	5.3	27.4		327.0	26.2	7.1	37.4

J-42

2025 Do Minimum 12:30 - 13:30 IP

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	77.4	54.9	13.6	88.8	LTB	4.4	29.3	7.5	49.7	LTC	0.0	-1.0	-1.0	-1.0	LTD	70.3	25.7	7.0	47.2
AHA	234.7	42.3	13.6	88.8	AHB	183.6	22.7	6.7	33.1	AHC	265.6	35.0	7.9	67.7	AHD	201.3	24.6	7.0	47.2
RTA	72.6	44.4	13.6	35.2	RTB	153.9	41.8	7.5	57.3	RTC	25.5	37.8	7.9	12.6	RTD	53.4	28.3	7.0	17.4
	384.7	47.2	13.6			341.8	31.2	7.2	46.7		291.1	23.9	4.9	26.4		325.0	26.2	7.0	37.3

Land at South Tees Development Corporation
Junction Statistics

J-42

2025 Do Something 16:30 - 17:30 PM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.2	100.2	23.8	101.0	LTB	198.1	30.5	9.2	57.8	LTC	0.0	-1.0	-1.0	-1.0	LTD	74.9	26.5	8.1	52.9
AHA	305.5	87.6	23.8	101.0	AHB	90.7	23.3	8.1	38.5	AHC	310.8	37.2	9.9	77.4	AHD	206.0	25.3	8.1	52.9
RTA	131.6	57.6	23.8	64.5	RTB	108.9	35.9	9.2	41.0	RTC	22.4	37.6	9.9	11.2	RTD	83.4	30.2	8.1	27.5
	437.3	81.8	23.8			397.8	29.9	8.8	45.8		333.2	24.6	6.3	29.2		364.3	27.3	8.1	44.5

J-42

2025 Do Minimum 16:30 - 17:30 PM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.2	137.9	28.1	103.8	LTB	198.8	30.5	9.2	57.8	LTC	0.0	-1.0	-1.0	-1.0	LTD	74.6	26.6	8.3	53.6
AHA	318.2	125.4	28.1	103.8	AHB	90.3	23.3	8.1	38.6	AHC	308.7	37.0	9.8	77.0	AHD	210.8	25.4	8.3	53.6
RTA	131.2	57.4	28.1	64.3	RTB	108.9	36.0	9.2	41.1	RTC	22.6	37.6	9.8	11.4	RTD	83.6	30.2	8.3	27.6
	449.7	106.9	28.1			398.0	29.9	8.8	45.8		331.3	24.5	6.2	29.1		369.0	27.4	8.3	44.9

Land at South Tees Development Corporation
Junction Statistics

J-42

2030 Do Something 08:00 - 09:00 AM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.2	49.4	9.8	69.9	LTB	1.8	28.5	5.1	33.8	LTC	0.0	-1.0	-1.0	-1.0	LTD	54.5	26.2	6.6	41.6
AHA	240.8	36.8	9.8	69.9	AHB	137.2	22.8	4.8	22.5	AHC	334.4	99.1	28.4	101.8	AHD	191.2	25.1	6.6	41.6
RTA	89.7	48.9	9.8	45.0	RTB	100.4	36.1	5.1	37.4	RTC	144.3	61.6	28.4	69.7	RTD	49.3	29.1	6.6	15.9
	330.7	45.0	9.8			239.4	29.1	5.0	31.2		478.7	53.2	18.6	56.8		294.9	26.8	6.6	33.1

J-42

2030 Do Minimum 08:00 - 09:00 AM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	2.1	49.0	9.4	67.8	LTB	2.0	28.4	5.1	33.4	LTC	0.0	-1.0	-1.0	-1.0	LTD	41.6	25.9	6.1	38.8
AHA	231.7	36.4	9.4	67.8	AHB	134.0	22.7	4.7	22.3	AHC	335.6	94.5	27.8	101.4	AHD	185.1	24.7	6.1	38.8
RTA	87.1	48.4	9.4	43.7	RTB	100.9	36.1	5.1	37.4	RTC	141.4	60.1	27.8	68.1	RTD	48.6	29.1	6.1	15.7
	320.9	44.6	9.4			236.9	29.1	5.0	31.0		476.9	51.2	18.2	56.2		275.3	26.6	6.1	31.1

J-42

2030 Do Something 12:30 - 13:30 IP

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	73.0	54.6	13.5	88.5	LTB	9.0	28.5	6.4	43.7	LTC	0.0	-1.0	-1.0	-1.0	LTD	66.7	25.8	7.1	47.8
AHA	226.2	42.1	13.5	88.5	AHB	171.2	22.3	5.8	29.2	AHC	292.2	36.1	8.9	73.1	AHD	204.2	24.6	7.1	47.8
RTA	84.1	46.1	13.5	41.1	RTB	120.9	37.1	6.4	45.1	RTC	22.3	37.5	8.9	11.0	RTD	58.0	28.5	7.1	18.7
	383.4	47.6	13.5			301.1	29.3	6.2	39.3		314.5	24.2	5.6	27.7		328.9	26.3	7.1	38.1

J-42

2030 Do Minimum 12:30 - 13:30 IP

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	85.2	55.2	13.8	89.3	LTB	8.7	28.8	6.8	46.2	LTC	0.0	-1.0	-1.0	-1.0	LTD	72.1	26.0	7.5	49.6
AHA	220.2	42.6	13.8	89.3	AHB	179.4	22.5	6.2	30.8	AHC	275.2	35.3	8.2	69.3	AHD	213.9	24.9	7.5	49.6
RTA	81.2	45.6	13.8	39.5	RTB	129.9	38.3	6.8	48.6	RTC	23.2	37.6	8.2	11.5	RTD	55.3	28.4	7.5	17.9
	386.6	47.8	13.8			318.0	29.9	6.6	41.9		298.3	24.0	5.1	26.6		341.2	26.4	7.5	39.0

J-42

2030 Do Something 16:30 - 17:30 PM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	40.9	121.9	26.3	102.7	LTB	239.0	31.6	10.7	64.3	LTC	0.0	-1.0	-1.0	-1.0	LTD	80.2	26.9	8.7	55.5
AHA	257.1	109.3	26.3	102.7	AHB	93.6	23.7	9.2	42.9	AHC	315.8	37.8	10.4	79.5	AHD	217.1	25.7	8.7	55.5
RTA	146.9	64.5	26.3	72.1	RTB	109.9	36.1	10.7	41.6	RTC	26.2	37.9	10.4	13.1	RTD	84.8	30.3	8.7	28.3
	444.8	98.6	26.3	92.5		442.5	30.5	10.2	49.6		341.9	24.9	6.6	30.5		382.1	27.6	8.7	46.4

J-42

2030 Do Minimum 16:30 - 17:30 PM

A: Park Vale Road (North)					B: Clairville Road					C: Park Vale Road (South)					D: Park Road North				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13		8	12	15	13
LTA	0.4	145.0	28.8	104.3	LTB	236.4	31.6	10.7	64.2	LTC	0.0	-1.0	-1.0	-1.0	LTD	77.5	26.8	8.6	55.2
AHA	310.6	132.5	28.8	104.3	AHB	96.4	23.7	9.2	42.8	AHC	313.0	37.0	9.8	76.9	AHD	228.4	25.7	8.6	55.2
RTA	140.7	61.3	28.8	68.9	RTB	109.0	36.0	10.7	41.3	RTC	17.9	37.2	9.8	9.0	RTD	74.3	29.7	8.6	24.8
	451.7	112.9	28.8	92.5		441.8	30.4	10.2	49.4		330.9	24.4	6.2	28.3		380.2	27.4	8.6	45.1

Land at South Tees Development Corporation
Junction Statistics

J-43

2019 Base 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	192.0	33.8	24.8	53.4	LTB	181.5	10.8	0.4	30.8	RTC	382.2	45.0	13.4	70.5
AHA	723.5	27.2	24.8	53.4	RTB	98.2	47.7	3.2	33.6	AHC	787.3	6.1	13.1	26.0
	915.6	30.5	24.8			279.7	29.2	1.8	32.2		1169.6	25.5	13.3	48.2

J-43

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	192.0	33.8	24.8	53.4	LTB	181.5	10.8	0.4	10.8	LTC	382.2	45.0	13.4	45.0
AHA	723.5	27.2	24.8	53.4	AHB	98.2	47.7	3.2	47.7	AHC	787.3	6.1	13.1	6.1
	915.6	30.5	24.8			279.7	29.2	1.8	29.2		1169.6	25.5	13.3	25.5

Land at South Tees Development Corporation
Junction Statistics

J-43

2019 Base 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	182.0	40.2	22.8	55.4	LTB	279.7	12.9	0.8	46.0	RTC	324.3	42.6	10.6	59.8
AHA	585.1	33.6	22.8	55.4	RTB	204.2	42.1	6.5	46.5	AHC	574.8	9.2	12.5	22.4
	767.1	36.9	22.8			483.9	27.5	3.7	46.3		899.0	25.9	11.5	41.1

J-43

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	182.0	40.2	22.8	55.4	LTB	279.7	12.9	0.8	12.9	LTC	324.3	42.6	10.6	42.6
AHA	585.1	33.6	22.8	55.4	AHB	204.2	42.1	6.5	42.1	AHC	574.8	9.2	12.5	9.2
	767.1	36.9	22.8			483.9	27.5	3.7	27.5		899.0	25.9	11.5	25.9

Land at South Tees Development Corporation
Junction Statistics

J-43

2019 Base 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	125.2	33.6	24.0	52.1	LTB	290.1	14.2	1.0	49.8	RTC	183.7	39.3	22.4	42.7
AHA	767.1	27.0	24.0	52.1	RTB	158.5	50.1	5.5	54.2	AHC	593.9	5.7	8.0	17.3
	892.4	30.3	24.0			448.6	32.1	3.3	52.0		777.6	22.5	15.2	30.0

J-43

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	125.2	33.6	24.0	52.1	LTB	290.1	14.2	1.0	14.2	LTC	183.7	39.3	22.4	39.3
AHA	767.1	27.0	24.0	52.1	AHB	158.5	50.1	5.5	50.1	AHC	593.9	5.7	8.0	5.7
	892.4	30.3	24.0			448.6	32.1	3.3	32.1		777.6	22.5	15.2	22.5

Land at South Tees Development Corporation
Junction Statistics

J-43

2025 Do Something 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	182.8	34.1	26.2	55.5	LTB	191.8	11.1	0.5	32.9	RTC	464.5	48.1	19.4	85.6
AHA	767.6	27.5	26.2	55.5	RTB	96.3	47.6	3.1	32.9	AHC	772.5	7.6	8.8	25.7
	950.5	30.8	26.2			288.0	29.4	1.8	32.9		1237.0	27.8	14.1	55.7

J-43

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	182.7	34.1	26.0	55.3	LTB	191.7	11.1	0.5	32.9	LTC	469.5	48.7	19.9	86.6
AHA	764.9	27.5	26.0	55.3	AHB	96.3	47.6	3.1	32.9	AHC	774.4	7.6	8.8	25.8
	947.6	30.8	26.0			288.0	29.4	1.8	32.9		1243.8	28.1	14.4	56.2

Land at South Tees Development Corporation
Junction Statistics

J-43

2025 Do Something 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	184.4	41.8	28.2	64.6	LTB	292.4	14.0	1.0	49.5	RTC	396.0	43.1	14.2	73.0
AHA	709.6	35.2	28.2	64.6	RTB	199.3	42.0	6.3	45.4	AHC	590.3	10.6	8.3	22.1
	894.1	38.5	28.2			491.7	28.0	3.6	47.5		986.4	26.8	11.3	47.5

J-43

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	184.4	41.9	28.5	65.0	LTB	292.9	14.0	1.0	49.7	LTC	402.2	43.4	14.6	74.2
AHA	715.4	35.3	28.5	65.0	AHB	198.8	41.9	6.3	45.3	AHC	556.4	10.5	7.7	20.8
	899.9	38.6	28.5			491.7	28.0	3.6	47.5		958.7	27.0	11.2	47.5

Land at South Tees Development Corporation
Junction Statistics

J-43

2025 Do Something 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	132.3	34.4	27.3	57.1	LTB	296.7	15.0	1.1	51.9	RTC	232.0	37.2	6.9	42.8
AHA	846.4	27.8	27.3	57.1	RTB	165.3	50.4	5.8	56.5	AHC	573.2	7.3	6.1	19.1
	978.8	31.1	27.3			462.0	32.7	3.4	54.2		805.2	22.2	6.5	30.9

J-43

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	132.3	34.6	28.2	58.4	LTB	296.7	15.1	1.1	52.2	LTC	233.7	37.3	6.9	43.1
AHA	868.7	28.0	28.2	58.4	AHB	165.3	50.4	5.8	56.5	AHC	570.8	7.2	6.1	19.0
	1001.1	31.3	28.2			462.0	32.7	3.5	54.3		804.5	22.3	6.5	31.0

Land at South Tees Development Corporation
Junction Statistics

J-43

2030 Do Something 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	187.3	34.7	28.5	58.9	LTB	199.0	11.5	0.5	34.6	RTC	493.3	52.6	22.9	90.9
AHA	822.9	28.1	28.5	58.9	RTB	98.6	47.7	3.2	33.7	AHC	834.5	7.7	9.7	27.8
	1010.3	31.4	28.5			297.6	29.6	1.9	34.2		1327.7	30.1	16.3	59.4

J-43

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	187.6	34.7	28.3	58.6	LTB	199.1	11.5	0.5	34.6	LTC	491.7	52.3	22.7	90.6
AHA	816.7	28.1	28.3	58.6	AHB	98.6	47.7	3.2	33.7	AHC	811.4	7.6	9.3	27.0
	1004.2	31.4	28.3			297.6	29.6	1.9	34.1		1303.1	29.9	16.0	58.8

Land at South Tees Development Corporation
Junction Statistics

J-43

2030 Do Something 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	189.5	41.8	28.3	64.8	LTB	306.7	14.6	1.1	51.9	RTC	405.5	43.6	14.8	74.8
AHA	707.3	35.2	28.3	64.8	RTB	199.3	42.0	6.3	45.4	AHC	617.0	10.7	8.8	23.1
	896.8	38.5	28.3			506.0	28.3	3.7	48.6		1022.5	27.1	11.8	48.9

J-43

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	189.9	41.9	28.7	65.4	LTB	301.7	14.4	1.0	51.1	LTC	410.7	43.9	15.1	75.7
AHA	715.3	35.3	28.7	65.4	AHB	204.3	42.1	6.5	46.5	AHC	565.4	10.6	7.9	21.1
	905.2	38.6	28.7			506.0	28.3	3.7	48.8		976.1	27.2	11.5	48.4

Land at South Tees Development Corporation
Junction Statistics

J-43

2030 Do Something 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	131.6	34.8	28.6	59.0	LTB	310.5	15.9	1.2	54.7	RTC	246.2	37.6	7.4	45.4
AHA	880.1	28.1	28.6	59.0	RTB	167.7	50.5	5.9	57.3	AHC	634.2	7.3	6.9	21.1
	1011.7	31.4	28.6	59.0		478.2	33.2	3.6	56.0		880.4	22.5	7.1	33.2

J-43

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: James Cook University Hospital Access					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	129.7	34.9	29.3	60.0	LTB	309.5	16.0	1.2	54.8	LTC	245.6	37.6	7.4	45.3
AHA	898.7	28.3	29.3	60.0	AHB	168.7	50.5	6.0	57.6	AHC	626.3	7.3	6.8	20.8
	1028.4	31.6	29.3	60.0		478.2	33.3	3.6	56.2		871.9	22.5	7.1	33.1

Land at South Tees Development Corporation
Junction Statistics

J-44

2019 Base 08:00 - 09:00 AM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	45.4	13.7	0.4	5.6	LTB	81.1	29.2	1.9	20.3	LTC	2.9	46.5	15.8	81.8
AHA	482.2	10.2	6.4	39.8	RTB	10.5	28.2	1.9	20.3	AHC	566.7	30.8	15.8	81.8
	527.6	11.9	3.4			91.5	28.7	1.9	20.3		569.5	38.6	15.8	81.8

J-44

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	45.4	13.7	0.4	5.6	LTB	81.1	29.2	1.9	29.2	LTC	2.9	46.5	15.8	46.5
AHA	482.2	10.2	6.4	39.8	AHB	10.5	28.2	1.9	28.2	AHC	566.7	30.8	15.8	30.8
	527.6	11.9	3.4			91.5	28.7	1.9	28.7		569.5	38.6	15.8	38.6

Land at South Tees Development Corporation
Junction Statistics

J-44

2019 Base 12:30 - 13:30 IP

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	34.1	13.1	0.3	4.0	LTB	24.9	22.4	0.4	6.2	LTC	3.6	38.2	7.1	63.5
AHA	383.0	9.0	4.0	33.4	RTB	3.0	21.4	0.4	6.2	AHC	387.9	22.5	7.1	63.5
	417.0	11.0	2.1			27.9	21.9	0.4	6.2		391.5	30.4	7.1	63.5

J-44

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	34.1	13.1	0.3	4.0	LTB	24.9	22.4	0.4	22.4	LTC	3.6	38.2	7.1	38.2
AHA	383.0	9.0	4.0	33.4	AHB	3.0	21.4	0.4	21.4	AHC	387.9	22.5	7.1	22.5
	417.0	11.0	2.1			27.9	21.9	0.4	21.9		391.5	30.4	7.1	30.4

Land at South Tees Development Corporation
Junction Statistics

J-44

2019 Base 16:30 - 17:30 PM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	60.4	13.8	0.6	7.5	LTB	50.9	28.6	1.1	12.5	LTC	5.7	47.5	16.9	84.1
AHA	515.0	10.5	7.0	42.5	RTB	5.6	27.6	1.1	12.5	AHC	579.9	31.8	16.9	84.1
	575.4	12.1	3.8			56.5	28.1	1.1	12.5		585.6	39.7	16.9	84.1

J-44

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	60.4	13.8	0.6	7.5	LTB	50.9	28.6	1.1	28.6	LTC	5.7	47.5	16.9	47.5
AHA	515.0	10.5	7.0	42.5	AHB	5.6	27.6	1.1	27.6	AHC	579.9	31.8	16.9	31.8
	575.4	12.1	3.8			56.5	28.1	1.1	28.1		585.6	39.7	16.9	39.7

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 08:00 - 09:00 AM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	79.2	17.3	0.8	9.9	LTB	13.8	28.2	0.6	6.4	LTC	9.2	49.1	18.4	87.0
AHA	483.9	10.2	6.4	39.9	RTB	14.8	27.1	0.6	6.4	AHC	596.3	33.4	18.4	87.0
	563.1	13.7	3.6			28.6	27.6	0.6	6.4		605.5	41.3	18.4	87.0

J-44

2025 Do Minimum 08:00 - 09:00 AM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	79.2	17.3	0.8	9.9	LTB	16.8	28.2	0.6	7.0	LTC	9.3	48.5	17.8	86.0
AHA	483.2	10.2	6.4	39.8	AHB	14.8	27.2	0.6	7.0	AHC	589.4	32.8	17.8	86.0
	562.4	13.7	3.6			31.6	27.7	0.6	7.0		598.7	40.7	17.8	86.0

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 12:30 - 13:30 IP

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	63.1	16.6	0.5	7.4	LTB	16.9	22.4	0.3	5.1	LTC	6.6	38.5	7.4	65.2
AHA	388.3	9.0	4.0	33.9	RTB	5.9	21.3	0.3	5.1	AHC	395.7	22.8	7.4	65.2
	451.5	12.8	2.3			22.8	21.9	0.3	5.1		402.2	30.6	7.4	65.2

J-44

2025 Do Minimum 12:30 - 13:30 IP

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	63.2	16.6	0.5	7.4	LTB	33.6	22.6	0.6	8.8	LTC	6.6	38.4	7.4	64.9
AHA	385.9	9.0	4.0	33.7	AHB	5.9	21.5	0.6	8.8	AHC	393.6	22.7	7.4	64.9
	449.1	12.8	2.3			39.5	22.1	0.6	8.8		400.2	30.6	7.4	64.9

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 16:30 - 17:30 PM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	85.9	17.3	0.9	10.7	LTB	11.6	28.1	0.5	5.7	LTC	10.1	46.1	15.4	80.8
AHA	537.3	10.6	7.4	44.3	RTB	14.2	27.1	0.5	5.7	AHC	552.2	30.4	15.4	80.8
	623.2	14.0	4.2			25.8	27.6	0.5	5.7		562.3	38.2	15.4	80.8

J-44

2025 Do Minimum 16:30 - 17:30 PM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	86.1	17.3	0.9	10.7	LTB	11.6	28.1	0.5	5.8	LTC	10.1	46.5	15.9	81.9
AHA	533.3	10.6	7.4	44.0	AHB	14.5	27.1	0.5	5.8	AHC	560.4	30.8	15.9	81.9
	619.4	14.0	4.1			26.1	27.6	0.5	5.8		570.5	38.7	15.9	81.9

Land at South Tees Development Corporation
Junction Statistics

J-44

2030 Do Something 08:00 - 09:00 AM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	142.4	17.8	1.5	17.9	LTB	18.2	28.3	0.7	8.3	LTC	16.3	50.7	19.8	89.1
AHA	497.9	10.3	6.7	41.1	RTB	19.3	27.3	0.7	8.3	AHC	603.8	35.0	19.8	89.1
	640.3	14.1	4.1			37.5	27.8	0.7	8.3		620.1	42.8	19.8	89.1

J-44

2030 Do Minimum 08:00 - 09:00 AM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	142.8	17.8	1.5	17.9	LTB	19.2	28.3	0.8	8.5	LTC	16.3	49.8	19.1	88.0
AHA	494.6	10.3	6.6	40.8	AHB	19.3	27.3	0.8	8.5	AHC	596.6	34.1	19.1	88.0
	637.3	14.1	4.1			38.5	27.8	0.8	8.5		612.9	42.0	19.1	88.0

Land at South Tees Development Corporation
Junction Statistics

J-44

2030 Do Something 12:30 - 13:30 IP

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	110.9	16.9	1.0	13.1	LTB	19.2	22.4	0.4	6.3	LTC	9.6	38.9	7.9	67.7
AHA	401.0	9.1	4.2	35.0	RTB	8.9	21.4	0.4	6.3	AHC	407.7	23.2	7.9	67.7
	511.9	13.0	2.6			28.1	21.9	0.4	6.3		417.3	31.0	7.9	67.7

J-44

2030 Do Minimum 12:30 - 13:30 IP

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	112.2	16.9	1.0	13.2	LTB	51.2	22.9	0.9	13.5	LTC	9.6	38.7	7.7	66.8
AHA	394.8	9.1	4.1	34.5	AHB	9.6	21.8	0.9	13.5	AHC	402.6	23.0	7.7	66.8
	506.9	13.0	2.5			60.8	22.4	0.9	13.5		412.2	30.9	7.7	66.8

Land at South Tees Development Corporation
Junction Statistics

J-44

2030 Do Something 16:30 - 17:30 PM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	153.9	18.0	1.6	19.2	LTB	15.0	28.3	0.8	8.5	LTC	14.7	46.9	16.2	82.8
AHA	562.4	10.8	7.9	46.4	RTB	23.1	27.3	0.8	8.5	AHC	561.8	31.2	16.2	82.8
	716.3	14.4	4.8	32.8		38.1	27.8	0.8	8.5		576.5	39.0	16.2	82.8

J-44

2030 Do Minimum 16:30 - 17:30 PM

A: B1365 (North)					B: Hemlington Grange Way					C: B1365 (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	153.7	17.9	1.6	19.2	LTB	16.2	28.3	0.8	8.6	LTC	14.7	46.8	16.2	82.6
AHA	548.9	10.7	7.7	45.3	AHB	22.7	27.3	0.8	8.6	AHC	560.7	31.1	16.2	82.6
	702.5	14.3	4.6	32.2		38.9	27.8	0.8	8.6		575.4	39.0	16.2	82.6

Land at South Tees Development Corporation
Junction Statistics

J-45

2019 Base 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	135.9	5.2	0.0	9.5	LTB	204.2	4.1	0.0	21.2	LTC	75.0	8.9	0.0	58.5
AHA	872.7	36.9	0.0	91.0	RTB	179.5	33.5	0.0	76.9	AHC	790.9	10.5	0.0	66.9
	1008.6	21.0	0.0			383.7	18.8	0.0	49.0		865.8	9.7	0.0	62.7

J-45

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	135.9	5.2	0.0	9.5	LTB	204.2	4.1	0.0	4.1	LTC	75.0	8.9	0.0	8.9
AHA	872.7	36.9	0.0	91.0	AHB	179.5	33.5	0.0	33.5	AHC	790.9	10.5	0.0	10.5
	1008.6	21.0	0.0			383.7	18.8	0.0	18.8		865.8	9.7	0.0	9.7

J-44

2019 Base 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	34.1	13.1	0.3	4.0	LTB	24.9	22.4	0.4	6.2	LTC	3.6	38.2	7.1	63.5
AHA	383.0	9.0	4.0	33.4	RTB	3.0	21.4	0.4	6.2	AHC	387.9	22.5	7.1	63.5
	417.0	11.0	2.1			27.9	21.9	0.4	6.2		391.5	30.4	7.1	63.5

J-44

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	34.1	13.1	0.3	4.0	LTB	24.9	22.4	0.4	22.4	LTC	3.6	38.2	7.1	38.2
AHA	383.0	9.0	4.0	33.4	AHB	3.0	21.4	0.4	21.4	AHC	387.9	22.5	7.1	22.5
	417.0	11.0	2.1			27.9	21.9	0.4	21.9		391.5	30.4	7.1	30.4

Land at South Tees Development Corporation
Junction Statistics

J-44

2019 Base 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	60.4	13.8	0.6	7.5	LTB	50.9	28.6	1.1	12.5	LTC	5.7	47.5	16.9	84.1
AHA	515.0	10.5	7.0	42.5	RTB	5.6	27.6	1.1	12.5	AHC	579.9	31.8	16.9	84.1
	575.4	12.1	3.8			56.5	28.1	1.1	12.5		585.6	39.7	16.9	84.1

J-44

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	12		8	12	15	12		8	12	15	12
LTA	60.4	13.8	0.6	7.5	LTB	50.9	28.6	1.1	28.6	LTC	5.7	47.5	16.9	47.5
AHA	515.0	10.5	7.0	42.5	AHB	5.6	27.6	1.1	27.6	AHC	579.9	31.8	16.9	31.8
	575.4	12.1	3.8			56.5	28.1	1.1	28.1		585.6	39.7	16.9	39.7

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	79.2	17.3	0.8	9.9	LTB	13.8	28.2	0.6	6.4	LTC	9.2	49.1	18.4	87.0
AHA	483.9	10.2	6.4	39.9	RTB	14.8	27.1	0.6	6.4	AHC	596.3	33.4	18.4	87.0
	563.1	13.7	3.6			28.6	27.6	0.6	6.4		605.5	41.3	18.4	87.0

J-44

2025 Do Minimum 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	79.2	17.3	0.8	9.9	LTB	16.8	28.2	0.6	7.0	LTC	9.3	48.5	17.8	86.0
AHA	483.2	10.2	6.4	39.8	AHB	14.8	27.2	0.6	7.0	AHC	589.4	32.8	17.8	86.0
	562.4	13.7	3.6			31.6	27.7	0.6	7.0		598.7	40.7	17.8	86.0

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	63.1	16.6	0.5	7.4	LTB	16.9	22.4	0.3	5.1	LTC	6.6	38.5	7.4	65.2
AHA	388.3	9.0	4.0	33.9	RTB	5.9	21.3	0.3	5.1	AHC	395.7	22.8	7.4	65.2
	451.5	12.8	2.3			22.8	21.9	0.3	5.1		402.2	30.6	7.4	65.2

J-44

2025 Do Minimum 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	63.2	16.6	0.5	7.4	LTB	33.6	22.6	0.6	8.8	LTC	6.6	38.4	7.4	64.9
AHA	385.9	9.0	4.0	33.7	AHB	5.9	21.5	0.6	8.8	AHC	393.6	22.7	7.4	64.9
	449.1	12.8	2.3			39.5	22.1	0.6	8.8		400.2	30.6	7.4	64.9

Land at South Tees Development Corporation
Junction Statistics

J-44

2025 Do Something 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	85.9	17.3	0.9	10.7	LTB	11.6	28.1	0.5	5.7	LTC	10.1	46.1	15.4	80.8
AHA	537.3	10.6	7.4	44.3	RTB	14.2	27.1	0.5	5.7	AHC	552.2	30.4	15.4	80.8
	623.2	14.0	4.2			25.8	27.6	0.5	5.7		562.3	38.2	15.4	80.8

J-44

2025 Do Minimum 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	86.1	17.3	0.9	10.7	LTB	11.6	28.1	0.5	5.8	LTC	10.1	46.5	15.9	81.9
AHA	533.3	10.6	7.4	44.0	AHB	14.5	27.1	0.5	5.8	AHC	560.4	30.8	15.9	81.9
	619.4	14.0	4.1			26.1	27.6	0.5	5.8		570.5	38.7	15.9	81.9

Land at South Tees Development Corporation
Junction Statistics

J-44

2030 Do Something 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	142.4	17.8	1.5	17.9	LTB	18.2	28.3	0.7	8.3	LTC	16.3	50.7	19.8	89.1
AHA	497.9	10.3	6.7	41.1	RTB	19.3	27.3	0.7	8.3	AHC	603.8	35.0	19.8	89.1
	640.3	14.1	4.1			37.5	27.8	0.7	8.3		620.1	42.8	19.8	89.1

J-44

2030 Do Minimum 08:00 - 09:00 AM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	142.8	17.8	1.5	17.9	LTB	19.2	28.3	0.8	8.5	LTC	16.3	49.8	19.1	88.0
AHA	494.6	10.3	6.6	40.8	AHB	19.3	27.3	0.8	8.5	AHC	596.6	34.1	19.1	88.0
	637.3	14.1	4.1			38.5	27.8	0.8	8.5		612.9	42.0	19.1	88.0

J-44

2030 Do Something 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	110.9	16.9	1.0	13.1	LTB	19.2	22.4	0.4	6.3	LTC	9.6	38.9	7.9	67.7
AHA	401.0	9.1	4.2	35.0	RTB	8.9	21.4	0.4	6.3	AHC	407.7	23.2	7.9	67.7
	511.9	13.0	2.6			28.1	21.9	0.4	6.3		417.3	31.0	7.9	67.7

J-44

2030 Do Minimum 12:30 - 13:30 IP

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	112.2	16.9	1.0	13.2	LTB	51.2	22.9	0.9	13.5	LTC	9.6	38.7	7.7	66.8
AHA	394.8	9.1	4.1	34.5	AHB	9.6	21.8	0.9	13.5	AHC	402.6	23.0	7.7	66.8
	506.9	13.0	2.5			60.8	22.4	0.9	13.5		412.2	30.9	7.7	66.8

Land at South Tees Development Corporation
Junction Statistics

J-45

2030 Do Something 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
RTA	116.1	5.2	0.0	8.4	LTB	252.0	4.3	0.0	25.4	LTC	152.3	19.7	0.0	66.0
AHA	940.6	78.0	0.0	98.9	RTB	202.4	119.4	0.0	98.8	AHC	832.1	28.6	0.0	78.2
	1056.7	41.6	0.0	53.7		454.3	61.8	0.0	62.1		984.4	24.1	0.0	72.1

J-45

2030 Do Minimum 16:30 - 17:30 PM

A: A172 Marton Road (North)					B: Clairville Road					C: A172 Marton Road (South)				
Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C	Movement	Flow_A	Delay_A	Mean Max Queue_L	V/C
	8	12	15	13		8	12	15	13		8	12	15	13
LTA	113.8	5.2	0.0	8.3	LTB	246.4	4.3	0.0	25.7	LTC	151.1	19.5	0.0	65.0
AHA	926.4	69.9	0.0	97.9	AHB	214.8	107.9	0.0	97.7	AHC	820.1	28.1	0.0	77.3
	1040.2	37.6	0.0	53.1		461.2	56.1	0.0	61.7		971.2	23.8	0.0	71.2

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Appendix B

Extended Traffic Flow Diagrams

	AM Peak			PM Peak			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Cars	870	162	1,031	171	914	1,085	5,147	5,160	10,307
LGVs	112	85	197	39	62	101	1,138	1,111	2,248
HGVs	74	62	135	54	39	93	844	805	1,649
Total	1,055	309	1,364	264	1,015	1,279	7,129	7,076	14,204

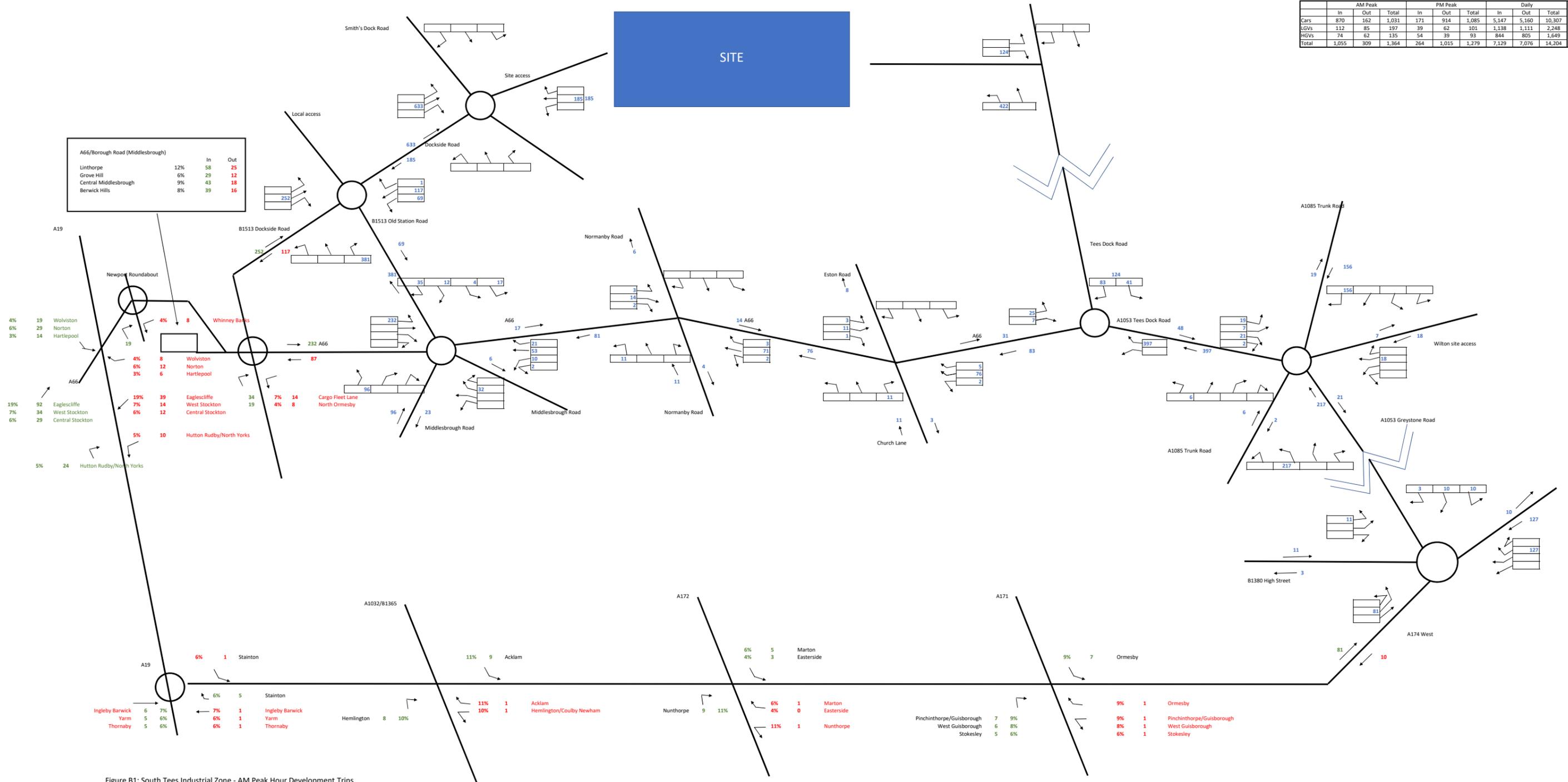


Figure B1: South Tees Industrial Zone - AM Peak Hour Development Trips

	AM Peak			PM Peak			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total
Cars	870	162	1,031	171	914	1,085	5,147	5,160	10,307
LGVs	112	85	197	39	62	101	1,138	1,111	2,248
HGVs	74	62	135	54	39	93	844	805	1,649
Total	1,055	309	1,364	264	1,015	1,279	7,129	7,076	14,204

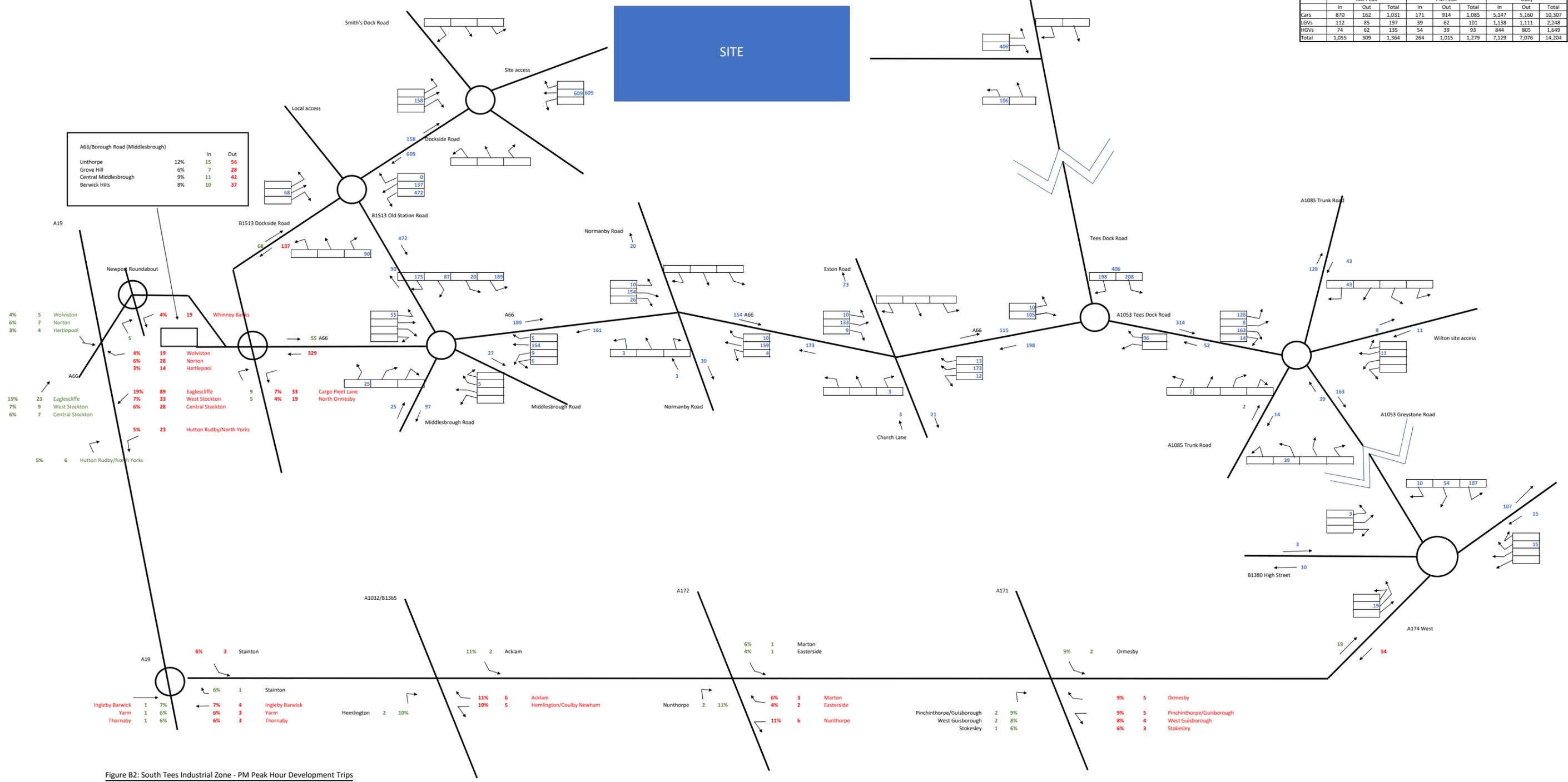


Figure B2: South Tees Industrial Zone - PM Peak Hour Development Trips

Appendix C

HE Technical Memorandum -
GraHAM Analysis

South Industrial Zone – Response to “Transport Assessment – Scoping Report”

PREPARED FOR: Chris Bell / Sunny Ali (Highways England)
PREPARED BY: Keith Drew
DATE: 25th August 2020
PROJECT NUMBER: 679066.AA.20.03.16
SITE/ DOCUMENT REF: DevTV0048/TM002
REVIEWED / APPROVED BY: Jonathan Parsons (CH2M)

Background

CH2M were commissioned by Highways England to provide a review (document reference DevTV0048/TM001, dated 25th June 2020) of the document titled “South Industrial Zone, Transport Assessment – Scoping Report” prepared by Arup on behalf of the South Tees Development Corporation and dated 19th June 2020 [the Scoping Report]. The review (TM001) provided rejected a number of decision points within transport assessment and sought a number of clarifications from Arup in relation to the development, particularly in relation to the trip distribution and impact on the Strategic Road Network [SRN].

This Technical Memorandum [TM] details additional work completed by CH2M, detailed below, in relation to this, and compares results to analysis provided in a follow up note titled “Highways England – South Industrial Zone Trip Distribution Analysis”, dated 17th August 2020, with this TM being produced whilst this work was being completed by Arup.

To recap, from the Transport Assessment, the site:

- Is located on the south bank of the River Tees, approximately 7km to the west of Redcar town centre and 4.5km to the east of Middlesbrough town centre (shown in Figure 1, extracted from the Scoping Report);
- It is expected that the proposed outline planning application will be for the development of up to 418,000sqm of general industry (use class B2) and storage or distribution facilities (use class B8); and
- First occupancy of the development will be in 2023, with the site fully occupied by 2028. When fully operational, the site is expected to accommodate approximately 3,870 employees.

The site is currently a brownfield site, with no existing uses and is located within in the Mid-Super Output Area [MSOA] of E02002517. The MSOA is within the Unitary Authority of Redcar and Cleveland.

From the Scoping Report, the trip generation for the site was agreed and this is shown in Table 1.

Table 1: Agreed trip generation

	AM Peak (08:00-09:00)			PM peak (17:00-18:00)		
	In	Out	Total	In	Out	Total
Employee Car Trips	870	162	1031	171	914	1085
LGVs	112	85	197	39	62	101
HGVs	74	62	135	54	39	101
Total vehicular trips	1055	309	1364	264	1015	1279

Figure 1 – Location of South Industrial Zone development



(Extract from the Arup Scoping Report)

Figure 2: Development MSOA



Work undertaken by CH2M seeks to understand the distribution of trips and impacts of the development on the SRN, using the Highways England GraHAM tool and subsequent Excel analysis.

Comparison is then made to assignments provided by Arup in the provided ‘Highways England – South Industrial Zone Trip Distribution Analysis; followed by a summary / conclusion at the end of this TM.

Additional Work

Distribution

Figure 2 shows the area covered by the MSOA, which is considered significant in size. The MSOA contains large areas of previous and existing employment uses around the port area, with small settlements of population to the east and south east of the area (Dormanstown, Kirkleatham and Yearby).

In the 2011 Census, the MSOA that contains the South Industrial Zone development, plays host to over 9,000 workers, with over 2,500 involved in manufacturing (29%). Table 2 details the full breakdown of jobs by industry.

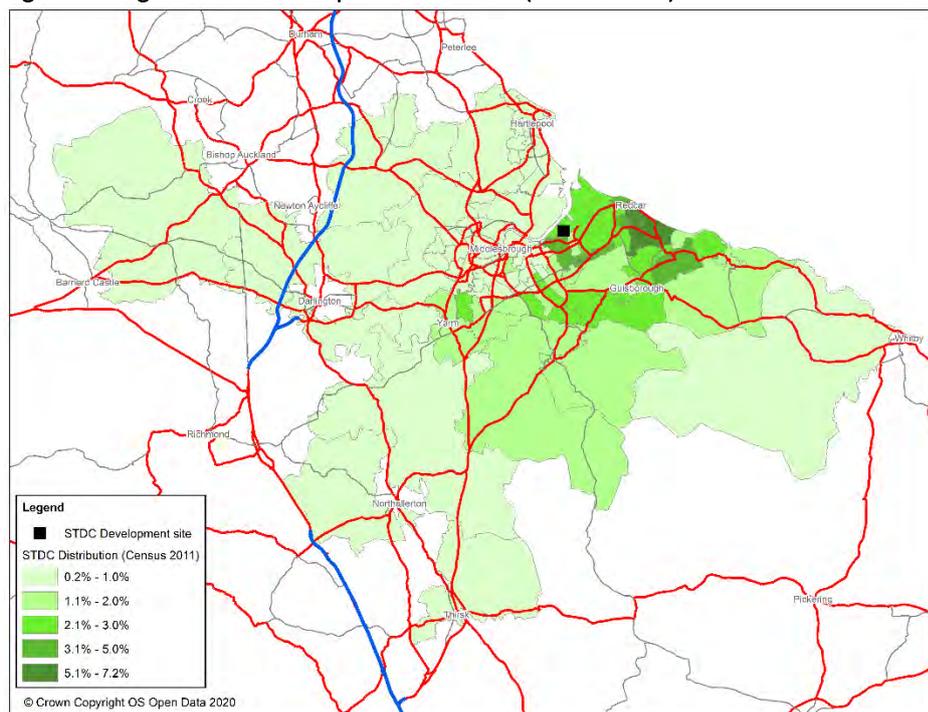
Table 2: Total jobs and industry in MSOA E02002517

Industry	Census 2011	
	Number	Percentage
All categories: Industry	8,964	100%
A Agriculture, forestry and fishing	20	0%
B Mining and quarrying	45	1%
C Manufacturing	2,570	29%
D Electricity, gas, steam and air conditioning supply	269	3%
E Water supply; sewerage, waste management and remediation activities	228	3%
F Construction	478	5%
G Wholesale and retail trade; repair of motor vehicles and motorcycles	1,113	12%
H Transport and storage	1,008	11%
I Accommodation and food service activities	169	2%
J Information and communication	109	1%
K Financial and insurance activities	66	1%
L Real estate activities	426	5%
M Professional, scientific and technical activities	625	7%
N Administrative and support service activities	459	5%
O Public administration and defence; compulsory social security	549	6%
P Education	332	4%
Q Human health and social work activities	365	4%
R,S Arts, entertainment and recreation; other service activities	129	1%
T Activities of households as employers	1	0%
U Activities of extraterritorial organisations and bodies	3	0%

Figure 3 shows the distribution of car trips (driver origin) for people who worked in the MSOA at the time of the 2011 Census. It should be noted that this is based upon a distribution where at least 10 people drove a car to the MSOA for employment purposes. The distribution shows high concentration of people living to the east of the development site in Redcar; and to the south (South Bank and Lazenby).

Overall, in the absence of any data information, the Census distribution is considered to reasonable to base the distribution upon.

Figure 3: Origin of car driver trips to E02002517 (Census 2011)

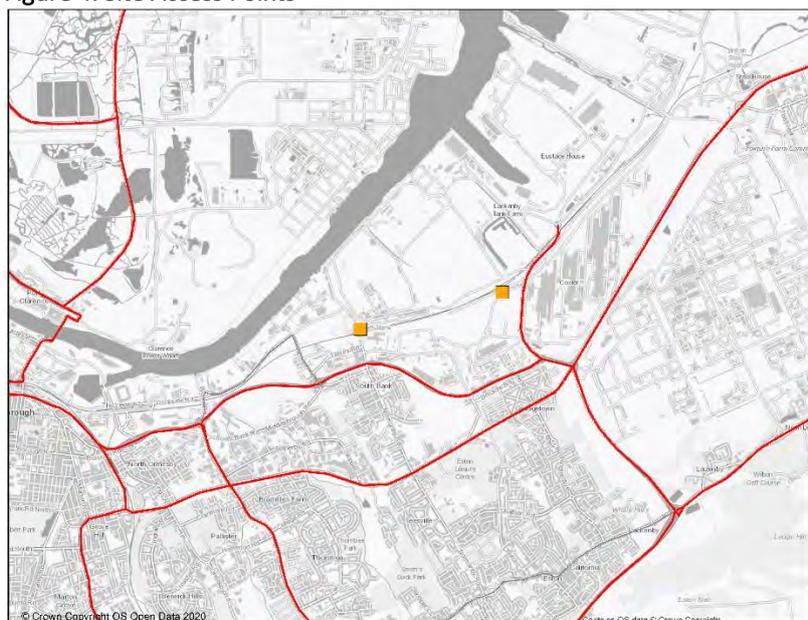


Assignment

Assignment of trips has been undertaken using Highways England tool GraHAM. The tool uses a combination of Excel and GIS and undertakes analysis of future developments using 2011 Census data Travel to Work data. For assignment, the tool calculates the fastest path (in GIS) utilising free flow speeds.

From the information provided by Arup it is proposed that the development is accessed from two separate locations, from the west at Dockside Road and to the east at Tees Dock Road. This is shown in Figure 4.

Figure 4: Site Access Points



The Scoping Report states that the western access (via Dockside Road) will account for 60% of traffic, while the eastern access (via Tees Dock Road) will account for 40% of the traffic.

GraHAM runs

An initial GraHAM run was undertaken, without any manipulation, however the result of this run showed that the distribution of trips to the two access points reversed, compared to the Scoping Report; with approximately 60% of trips using the eastern access and 40% the western access.

To ensure access splits consistent to the Scoping Report, the GraHAM run was updated by removing the A174 links to the east of Ormesby. By doing this, it ensured that any trips originating south of the A174 (i.e. Stainton, Coulby Newham and Nunthorpe) were forced to use the A172 and Cargo Fleet Lane to access the western access. Checks on Google Maps showed that this routing option was significantly shorter in distance (more than 2 miles) and similar in journey times (+1 minute), and is therefore considered a valid adjustment.

The second GraHAM run, based upon the changes outlined above, resulted in an access split of 55% (western) and 45% (eastern), which more closely matched that of the Scoping Report. However, to ensure a perfect match, trips were adjusted by +/-5% through the network based upon which access point was utilised, resulting in 60% of development trips utilising the western access and 40% using the eastern access. It should be noted that the adjustments were made using Excel, and a tool was developed to allow the adjustments to be reset.

Figures 5 (complete network) and 6 (focused around the site) show the number of trips across the network generated by the site in the morning peak.

Figure 5: Development trips, Morning Peak, wider

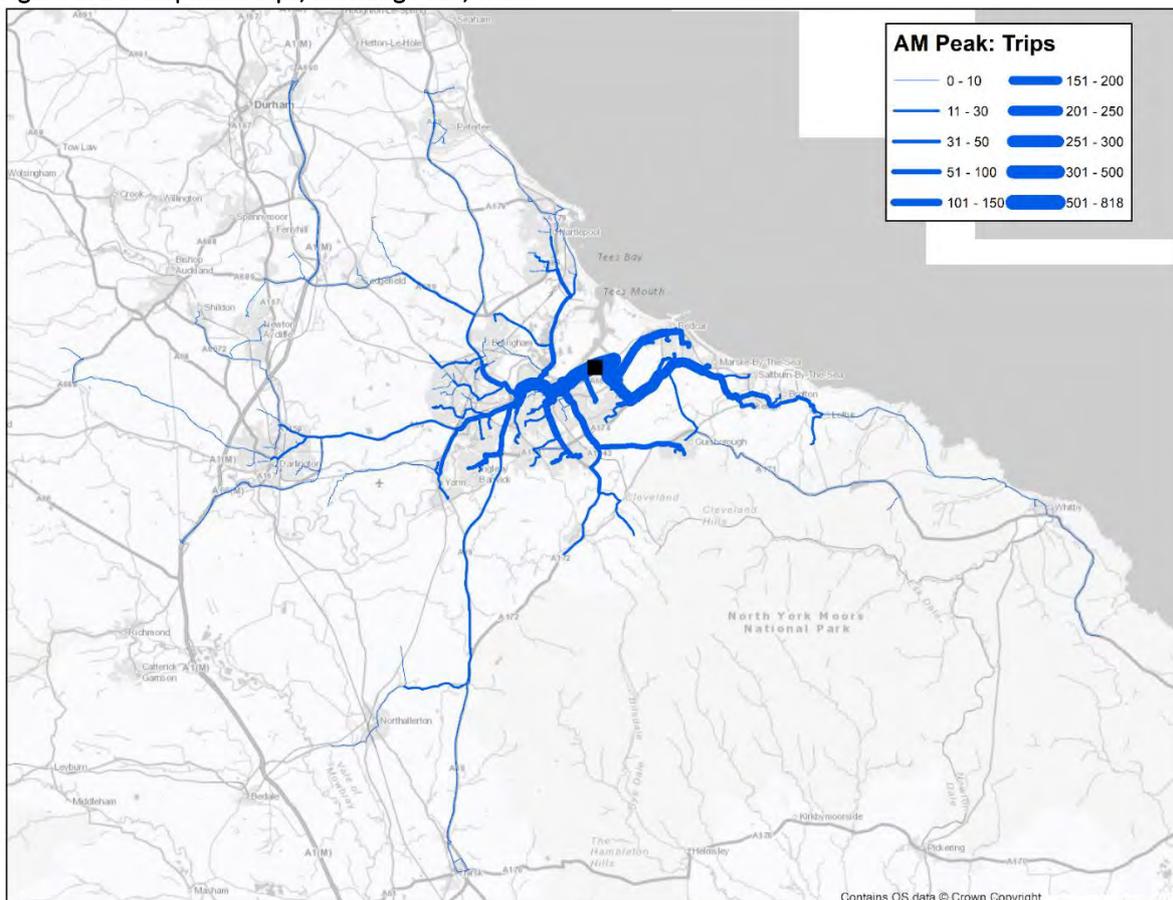
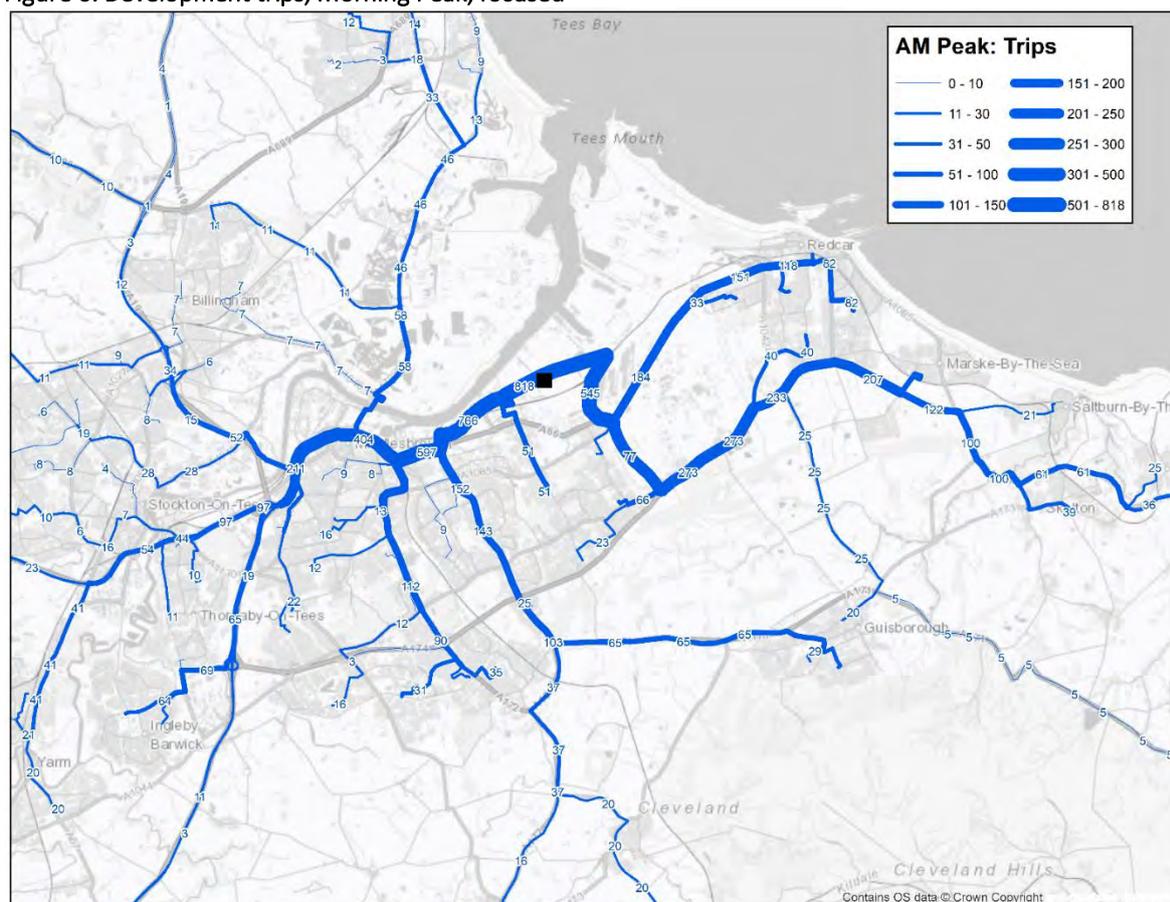


Figure 6: Development trips, Morning Peak, focused



Key SRN Junction Impacts

Table 3 details the number of trips measured at key junctions on the SRN on the A19, A174 and A1053. Comparison is made to the assignments presented within the stick diagrams within the ‘Highways England – South Industrial Zone Trip Distribution Analysis’ Technical Note supplied by Arup.

A1053 / A66 / Tees Dock Road

At the A1053 / A66 / Tees Dock Road junction, comparing maximum values due to the process of ‘fixing’ the assignment to 40%, the maximum values are equal with 546/512 trips in the respective morning and evening peak, on Tees Dock Road.

However, differences emerge when considering the impacts on the local network at the A66, with the GraHAM analysis showing no trips utilising the A66 and all trips travelling to / from the A1053 and Tees Dock Road. It is unclear why the assignment provided by Arup would use the A66 to access the western side of the development from the east or travel eastbound from the western access point.

Furthermore, the assignment in the evening peak provided by Arup shows a significant uplift in two-way traffic along the A66 (313 in the evening peak compared to 114 in the morning peak).

A1053 / A1085 / Tees Dock Road

Impact at this junction is greater within the GraHAM modelling compared to the distributional analysis provided, most notably along the A1053. This is due to traffic in the Arup analysis using the A66, which is not the case for the GraHAM modelling. Overall, the maximum impact at this junction is measured to be 100 trips more in the morning peak and nearly 150 trips in the evening peak.

A number of trips in the Arup assignment access the Wilton industrial site to the east of the junction, 25 in the morning peak and 19 in the evening peak.

TECHNICAL MEMORANDUM

Table 3: SRN Impacts: comparing GraHAM to Arup assignments

Junction	Description	AM - GraHAM	PM - GraHAM	AM - TA	PM - TA	Difference GraHAM to TA AM	Difference GraHAM to TA PM	AM - GraHAM (max)	PM - GraHAM (max)	AM - TA (max)	PM - TA (max)	AM (Diff Census to TA)	PM (Diff Census to TA)
A66 / A1053 / Tees Dock Road	A66	0	0	114	313	-114	-313						
	Tees Dock Road	546	512	546	512	0	0	546	512	546	512	0	0
	A1053	546	512	445	366	101	146						
A1053 / A1085 / Tees Dock Road	A1053 (two way)	546	512	445	366	101	146						
	A1085 W Trunk Road (two way)	21	20	8	16	13	4						
	A1085 E Trunk Road (two way)	185	173	175	171	10	2	546	512	445	366	101	146
	A1053 Greystone Road sb	77	253	21	163	56	90						
	A1053 Greystone Road nb	263	66	217	39	46	27						
	Wilton Site Access (two way)	0	0	25	19	-25	-19						
A1053 / A174 / B1380	B1380 (two way)	66	62	14	13	52	49						
	A174 E (two way)	274	257	137	122	137	135						
	A174 W (two way)	0	0	91	73	-91	-73	274	257	219	171	55	86
	A1053 sb (to A174)	77	253	26	171	51	82						
	A1053 nb (from A174)	263	66	219	37	44	29						
A19 / A1046 / A1032	A19 eastbound exit	52	13	no data	no data	-	-						
	A19 westbound join	15	50	no data	no data	-	-						
	A1046 S to A19 junction	22	5	no data	no data	-	-						
	A1046 S from A19 junction	6	21	no data	no data	-	-	96	90	0	0	96	90
	A1046 N from A19 junction to A1032	74	19	no data	no data	-	-						
	A1046 N to A19 junction from A1032	22	71	no data	no data	-	-						
	A1032 (two way flow)	96	90	no data	no data	-	-						
A19 / A66	A66 mainline (westbound)	98	24	155	39	-57	-15						
	A66 mainline (eastbound)	29	94	65	150	-36	-56						
	A19 to A66 eastbound	66	16	24	6	42	10	211	198	342	295	-131	-97
	A66 to A19 southbound	19	63	10	23	9	40						
	A66 two way flow	211	198	342	295	-131	-97						
A19 / A1130	A19 mainline (northbound)	66	16	no data	no data	-	-	66	63	0	0	66	63
	A19 mainline (southbound)	19	63	no data	no data	-	-						
A19 / A174	A174 W (two way)	70	65	16	3	54	62						
	A19 S NB	12	3	no data	no data	-	-						
	A19 S SB	3	11	no data	no data	-	-	85	79	34	29	51	50
	A19 N NB	66	16	24	6	42	10						
	A19 N SB	19	63	10	23	9	40						

A1053 / A174 / B1380

Impact at this junction is greater within the GraHAM modelling compared to the distributional analysis provided, most notably along the A174. Overall, maximum impact at this junction is measured to be 55 trips more in the morning peak (274 trips compared to 219) and nearly 86 trips in the evening peak (257 trips compared to 171 trips).

A19 / A1046 / A1032

This SRN junction is not considered within the Arup assignment; however, the GraHAM analysis suggests impacts at this junction to be greater than 30 vehicles (maximum two-way flow of 96 along the A1032 in the morning peak).

A19 / A66

Impacts at this junction are greatest in the Arup assignment, with a two-way development flow of 342 in the morning peak and 295 in the evening peak on the A66, compared to 211 and 198 in the GraHAM analysis. The difference is likely due to trips from/to A19 north being included in the Arup assignment, but in the GraHAM assignment these trips exit/join at the A19 / A1046 / A1032 junction, which is not assessed within the Arup work.

A19 / A1130

This SRN junction is not considered within the Arup analysis; however, the GraHAM analysis suggests impacts at this junction to be greater than 30 vehicles (maximum two-way flow of 66 vehicles along the A19 in the morning peak).

A19 / A174

The A19 / A174 junction is partially covered by the Arup assignment (with no data provided for the A19 south of the junction). Overall, of the presented numbers, this junction has the least impact from the development across the assessed junctions. However, within the GraHAM analysis there is still an impact greater than 30 trips (in the morning peak the maximum impact is 70 trips, whilst in the evening peak the impact is 65 trips).

Additional comments – ‘Highways England – South Industrial Zone Trip Distribution Analysis’ Technical Note (dated 17th August 2020)

The narrative provided by Arup states that the wider distribution of trips, in the absence of wider base traffic flows on which to distribute traffic, Census data has been used to inform wider trip distribution assumptions.

Travel to work data from the 2011 Census has been downloaded for those travelling to the area where the site is located (Census MSOA E02002517). The method of distribution within the study area remains “being informed by base traffic distributions”. However, this approach was not accepted in CH2M’s previous response.

The technical note states that the site was operating as a steel works in 2011, and whilst noting that the proposed use could alter the trip attraction of the site, the zone includes the Wilton International site, so it was likely to have a relatively mixed geographical draw in 2011. This is accepted and utilised within the GraHAM tool, as noted above.

Origins with 1% of total trips or more were extracted and the most likely main route to the site identified based on directions given in Google Maps. This data is presented in Table 1. This appears to

be based all trips, rather than car driver trips, and as such this differs from the GraHAM output. No detailed assessment has been made of the assumptions made using Google Maps.

Table 1 also suggests that internal trips (within E02002517), which account for 4% of trips are not considered (route N/A). For MSOAs which cover smaller areas this would be accepted, however in this case the MSOA in question has distinct areas of residential in relation to the site, as noted above and shown in Figure 2. It is likely that these trips will have an impact on the SRN at the A1053 junction with A1085 (Trunk Road) and the A1053 / A174 junction.

Summary and Conclusions

This Technical Memorandum has assessed the South Industrial Zone using the GraHAM Highways England tool. The tool assesses new developments in terms of trip generation, distribution and assignment using 2011 Census travel to work data and a GIS routing algorithm (fastest path).

The purpose of this assessment being to test the development against impacts on the Strategic Road Network. During this work, Arup provided further analysis showing their predicted impacts of the development on the wider network, this has therefore enabled a comparison between the two sets of work.

The GraHAM analysis was set up with the numbers provided within the Transport Assessment, previously reviewed, in relation to the trip generation in the morning and evening peak hours.

An initial GraHAM run could not match up with the site access splits (60% western, 40% eastern) suggested within the Transport Assessment, with a reverse access split suggested (40% eastern, 60% western). Consideration should be given to this, as this has direct impact on the SRN with the western access leading to the A1053 via Tees Dock Road.

As the purpose of the work was to match up with the Transport Assessment results, a second GraHAM run was undertaken with the results manipulated by removing the option of trips originating south of the A174, travelling along the A174 and then the A1053 to the eastern access. Instead, trips were forced to use the local network and access the site via the A66 and the western access point. The manipulation of these trips gave an access point split of 55% eastern and 45% western. Using Excel and factors, routes that used either access points were factored to reach the 60/40 split.

Comparison has then been made, with regard to maximum impacts, at each junction on the SRN, between the GraHAM runs and those provided within the further analysis by Arup:

- A1053 / A66 / Tees Dock Road – due to the GraHAM manipulation process the GraHAM and Arup numbers match in terms of maximum impact (on Tees Dock Road). However, differences emerge when considering the impacts of the A66, with the GraHAM analysis showing no trips utilising the A66 and all trips travelling to/from the A1053 and Tees Dock Road. Furthermore, the assignment in the evening peak provided by Arup shows a significant uplift in two-way traffic along the A66 compared to the morning peak;
- A1053 / A1085 / Tees Dock Road - Impact at this junction is greater within the GraHAM modelling compared to the distributional analysis provided, most notably along the A1053;
- A1053 / A174 / B1380 - Impact at this junction is greater within the GraHAM modelling compared to the distributional analysis provided, most notably along the A174;
- A19 / A1046 / A1032 - This SRN junction is not considered within the Arup assignment; however, the GraHAM analysis suggests impacts at this junction to be greater than 30 two-way trips;
- A19 / A66 - Impacts at this junction are greater in the Arup assignment, with the difference likely due to trips to/from north of the junction on the A19 being included here in the Arup

assignment, but in the GraHAM assignment these trips exit/join at the A19 / A1046 / A1032 junction, which is not assessed within the Arup work;

- A19 / A1130 - This SRN junction is not considered within the Arup analysis; however, the GraHAM analysis suggests impacts at this junction to be greater than 30 vehicles (maximum two-way flow of 66 vehicles along the A19 in the morning peak); and
- A19 / A174 - The A19 / A174 junction is partially covered by the Arup assignment (no data is provided for the A19 south of the junction). Overall, of the presented numbers this junction has the least impact from the development in the assessed junctions, however within the GraHAM analysis there is still a maximum impact greater than 30 trips.