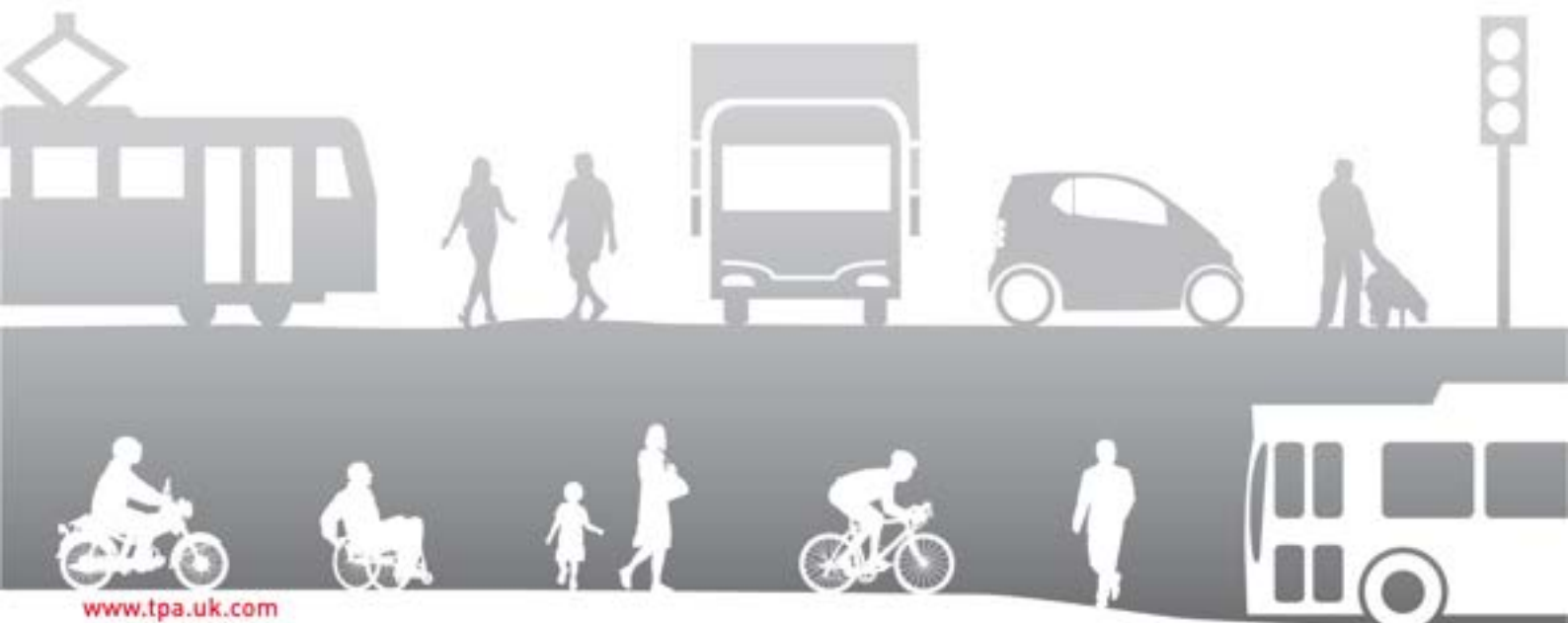


A Planning Application by
CORDAGE ESTATES LIMITED

In respect of
**The Holt,
RAINHILL**

Transport Assessment

November 2021



Document Management

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1 Introduction

- 1.1 Transport Planning Associates has been appointed by Cordage Estates Limited to provide transport and highways advice in relation to the proposed development at The Holt public house in Rainhill, Prescott. The location of the site is shown at **Figure 1.1**.

Figure 1.1 Site Location Plan



Source: © OpenStreetMap contributors

- 1.2 The proposed scheme comprises the development of a convenience store (342 m² Gross Internal Area) to be located within the Holt public house car park. The existing public house will be retained as part of the development proposals.

Planning History

- 1.3 Planning permission was sought for a similar proposal in 2020¹. An initial consultation response was provided by the highway authority in April 2020 followed by a second response dated 25 August 2020 to address the submission of a Technical Note from TPA². The two responses are reproduced at **Appendix A** and are summarised below:

- Highway safety impacts due to the proposed site access location and use
- Highway safety impacts of development related parking
- Highway capacity impacts of the development
- Insufficient provision of disabled parking and cycle / motorcycle parking
- Lack of a Travel Plan

¹ Knowsley Metropolitan Borough Council (KMBC) planning reference 20/00102/FUL

² TPA document reference 1911-011/TN01, dated June 2020

- 1.4 The above comments are addressed within this Transport Assessment.

Report Structure

- 1.5 This Transport Assessment has been prepared to consider the highway and transport aspects of the proposed development of the Site to support the planning application. This report will describe the proposed scheme, set out the baseline position and consider the impact of the proposals on the surrounding highway network.

- 1.6 The remainder of this report is set out as follows:

- Chapter 2 - Transport Baseline;
- Chapter 3 - Transport Policy Review;
- Chapter 4 - Development Proposals;
- Chapter 5 - Impact Assessment;
- Chapter 6 - Parking Assessment
- Chapter 7 Junction Capacity Assessment;
- Chapter 8 Minimum Accessibility Standard Assessment;
- Chapter 9 Travel Plan; and
- Chapter 10 - Summary and Conclusions

2 Transport Baseline

Existing site

- 2.1 The Site is located at 285 Warrington Road in Rainhill, Prescott. The Site is currently in use as a car park for the Holt public house and vehicular access is taken from Holt Lane. Holt Lane meets Warrington Road at a traffic signal controlled junction.
- 2.2 As can be seen from **Figure 2.1**, part of the site has been given over to decking and the public house car park provides approximately 20 car parking spaces, including one disabled parking space.

Figure 2.1 The Holt aerial view



Source: www.google.com

- 2.3 It is understood that the pub is currently serviced from Holt Lane, with barrels taken into the site via wooden gates in the eastern boundary wall of the site, south of the site access. **Figure 2.2** shows the local site context.

Figure 2.2 Local site context

Source: © OpenStreetMap contributors

- 2.4 As can be seen, the Site is located in a predominantly residential area. Whiston Hospital is located to the west of the site with its site access located approximately 95 m to the west of the Holt Lane/Warrington Road junction. The Hospital does not allow visitor parking.

Pedestrian and Cycle Infrastructure

Pedestrian facilities

- 2.5 Footways are present to either side of the A57 Warrington Road. Their width varies from approximately 1.5 - 4.0 m in the vicinity of the site. Dropped kerbs and tactile paving are present at the traffic signal controlled junction with Holt Lane to assist pedestrians to cross the junction. Footways are also present along both sides of Holt Lane. Their width varies between approximately 1.5 – 2.0 m wide. Beyond the signalised crossing at Warrington Road, tactile paving is not provided.

Catchment area

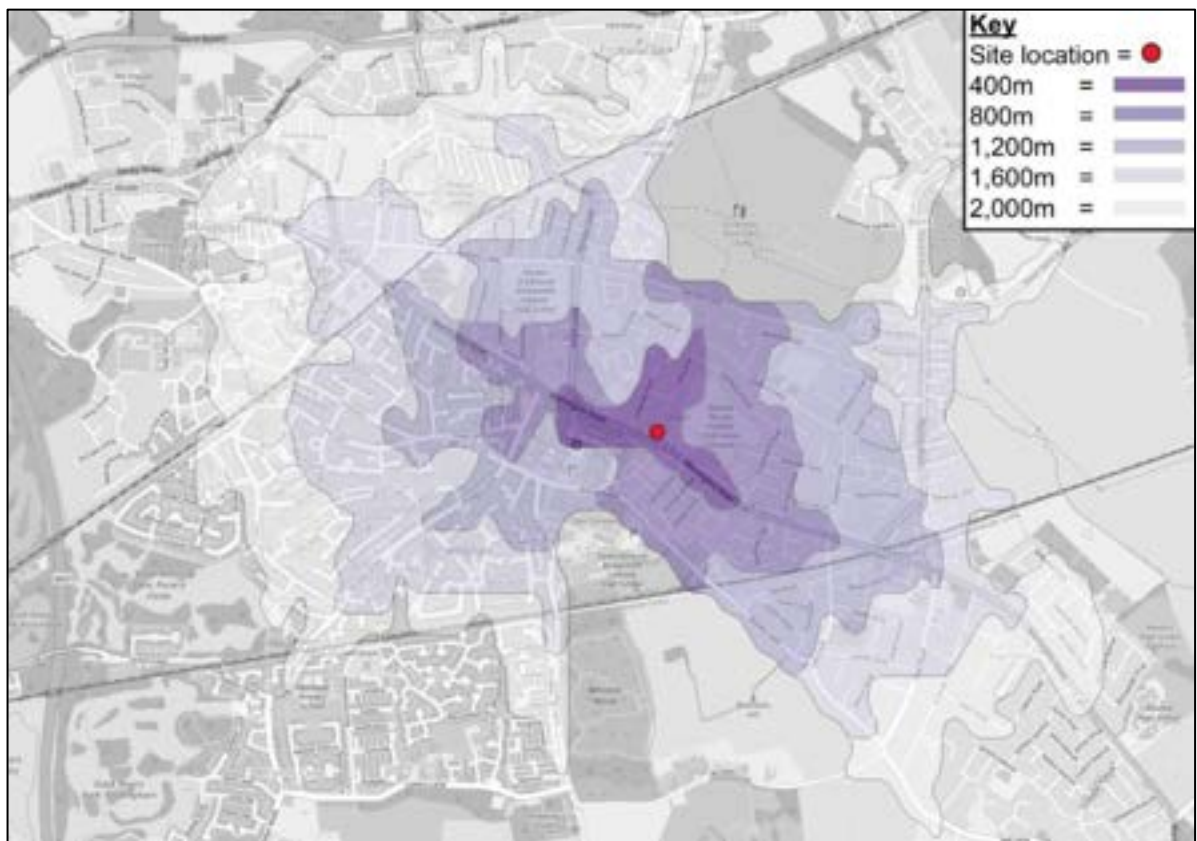
- 2.6 The Institution of Highways and Transportation (IHT) publication 'Providing for Journeys on Foot' identifies the desirable, acceptable and preferred maximum walking distances to various amenities. The distances in the table below are taken from Table 3.2 of the IHT publication, which set out the suggested thresholds for local services and amenities.

Table 2.1 IHT suggested walking distance thresholds

	Town Centres (m)	Commuting / School / Sight-seeing (m)	Elsewhere (m)
Desirable	200	500	400
Acceptable	400	1,000	800
Preferred maximum	800	2,000	1,200

Source: Table 3.2 of *Providing for Journeys on Foot (IHT)*

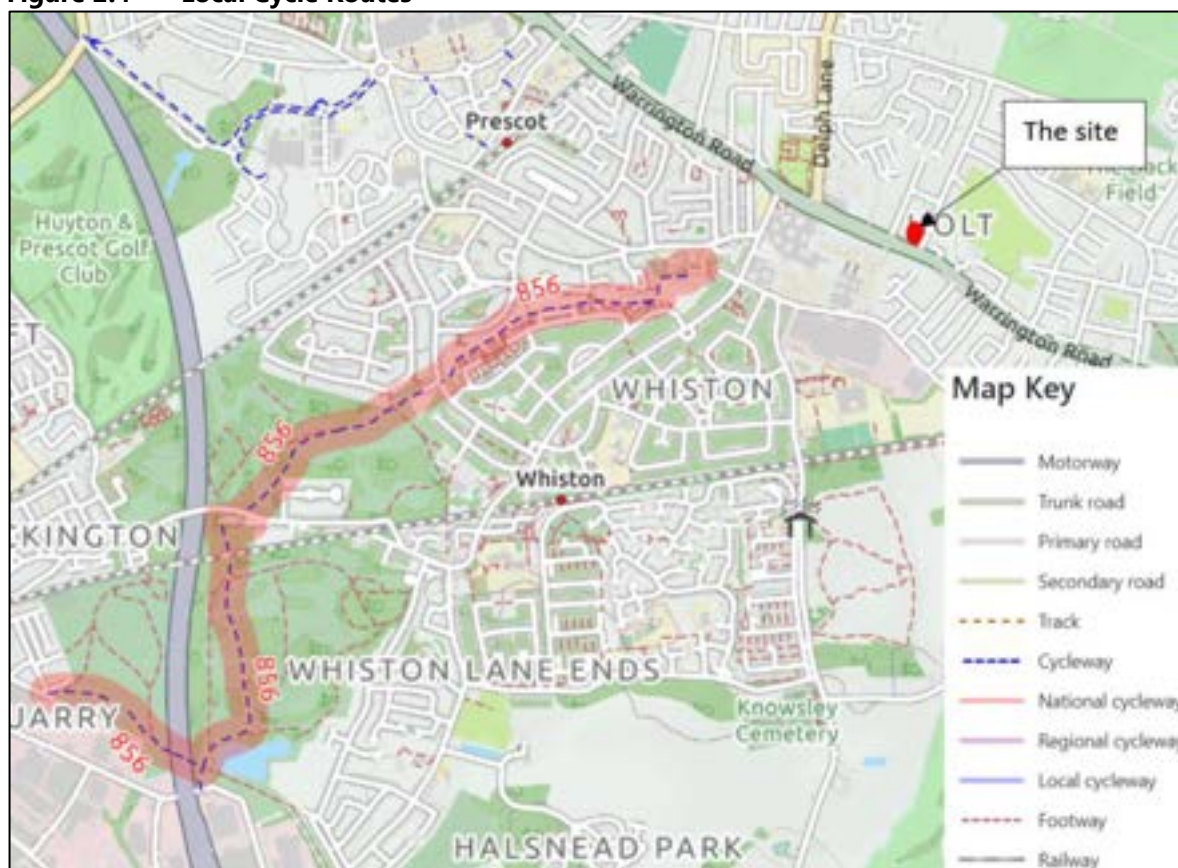
- 2.7 *Building Sustainable Transport into New Developments (DfT, 2008)* gives the following advice on pedestrian catchment areas: "Walking neighbourhoods are typically characterised as having a range of facilities within 10 minutes' walking distance (around 800 metres)". This is further stressed in CIHT guidance "Planning for Walking" (2015).
- 2.8 As shown in **Figure 2.3**, the location of the site is such that the majority of the surrounding residential area would be located within 1,200 m of the proposed convenience store.

Figure 2.3 Walking catchment

Source: © OpenStreetMap contributors

Cycle infrastructure

- 2.9 Whilst there are no identified cycle routes within the immediate vicinity of the Site, the A57 Warrington Road includes Advanced Stop Lines at the traffic signal controlled junctions in the vicinity of the site. Approximately 500 m to the south west of the site and starting close to Whiston Hospital, National Cycle Network Route 856 provides a connection with Huyton Quarry, passing through Stadt Moers Park. **Figure 2.4** shows the location of the route relative to the site.

Figure 2.4 Local Cycle Routes

Source: © OpenStreetMap contributors

- 2.10 A 5 km catchment from the site (based on a journey time of 20 minutes at an average speed of 15 km/h) would include all of Whiston, Rainhill and Prescott as well as Huyton and Thatto Heath.

Public Transport Accessibility

Bus services

- 2.11 The closest bus stops to the site are located approximately 155 m to the west along Warrington Road. A total of four bus routes can be accessed from these stops, as summarised in the following table.

Table 2.2 Bus Services

Route Number*	Operator	Route	Frequency/hour		
			Monday to Friday	Saturday	Sunday
10A	Stagecoach Merseyside and South Lancashire	Liverpool, James Street - St. Helens Bus Station	5		2-3
10A	Arriva Merseyside	Liverpool ONE Bus Station - Hall Street	4		2-3
61	Arriva North West	Liverpool - Palace Fields	1-2		1
289	Cumfybus	Kirkby - St Helens	1		-

Source: www.bustimes.org

* excludes school services

Rail services

- 2.12 There are two railway stations located within 1.3 km of the site. Rainhill station is located approximately 1.2 km to the east of the Site. The station can also be accessed via the 10A and 61 bus routes within a journey time of less than 10 minutes.
- 2.13 The station is managed by Northern Trains and provides access to services on the Liverpool City Line between Liverpool and Manchester. Frequent services from the station are provided towards Crewe, Liverpool Lime Street and Warrington Bank Quay. There are also services towards Manchester Victoria and Wigan North Western. Services are provided every 30 minutes during weekdays and Saturdays as well as hourly towards Manchester Victoria and Liverpool Lime Street.
- 2.14 Eccleston Park station is located approximately 1.3 km to the north of the site. The station, which is also managed by Northern Trains, provides access to services on the Liverpool to Wigan City line, with a service frequency of 2 trains per hour.

Local Highway Network

- 2.15 The site access is located on Holt Lane, which is a single carriageway 5.5 m wide road. The road is illuminated and is subject to a 30 mph speed limit. The site access is located approximately 40 m to the north of the traffic signal controlled junction with the A57 Warrington Road. It has a limited visibility splay to the left when measured from an offset of 2.4 m and a splay to the right of approximately 12.0 m

- 2.16 The A57 Warrington Road is also a single carriageway road. It is approximately 7.3 m wide in the vicinity of the site and is illuminated and subject to a 30 mph speed limit. Holt Lane leads to the residential area to the north of the site while Warrington Road connects the site with Prescott to the west, Holt and Rainhill to the east. Further afield, Warrington Road meets the M62 motorway at junction 7 and continues on towards Warrington.
- 2.17 A number of parking restrictions apply to the roads in the vicinity of the site. The A57 is subject to a No Waiting restriction to the west of the site to Whiston Hospital and beyond and also to the east of the site. A similar restriction applies to Holt Lane from its junction with Warrington Road to the junction with Haddon Close. Beyond this point, the No Waiting restriction continues along the northbound lane (Mon - Fri 08:00 – 18:00), while Permit parking is in force on the southbound lane (Mon – Fri 08:00 – 18:00).
- 2.18 The residential areas to the west of Hale Lane are also subject to Permit parking (No vehicles except for permit holders and for access to off street premises 07:00 – 19:00). As noted earlier, the adjacent Whiston Hospital does not allow visitor parking and the parking restrictions described above clearly address this in order to prevent the occurrence of on-street parking close to the Hospital. An extract from the Knowsley Borough Council online parking restriction plan (2018) is reproduced at **Figure 2.5**.

Figure 2.5 Existing parking restrictions



Source: <https://parking.knowsley.gov.uk/>

Road Safety

- 2.19 An inspection of the Crashmap³ web facility revealed that a single personal injury collision was recorded in the immediate vicinity of the site during the past five-year period between 2016 and 2020. The location of the recorded incidents is shown at **Figure 2.6**.

Figure 2.6 Personal injury collisions



Source: www.crashmap.co.uk/

- 2.20 As can be seen, the single incident, which occurred in August 2018, took place on Warrington Road. The incident was classified as serious in nature and involved a single car and only one casualty. Notwithstanding the limited existing visibility splays at the site access, the low frequency of incidents within the area of interest suggests that there are no road safety issues within the vicinity of the Site.

Summary

- 2.21 The existing site is located in an accessible area with good pedestrian and public transport facilities.

³ www.crashmap.co.uk

3 Transport Policy Review

3.1 This Chapter of the Transport Statement provides a policy context to the development proposals, focusing on both national and local planning transport policy and guidance. The documents, which have been reviewed in relation to this planning application, include:

- National Planning Policy Framework;
- National Planning Practice Guidance; and
- Knowsley Local Plan

National Planning Policy Framework (2019)

National Planning Policy Framework (July 2021)

3.2 The National Planning Policy Framework (NPPF), which was updated in July 2021, sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

3.3 NPPF describes a sustainable transport mode as

"Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra low and zero emission vehicles, car sharing and public transport." (annex 2, p. 73).

3.4 With regards to achieving sustainability, the document states that:

"The purpose of the planning system is to contribute to the achievement of sustainable development. At a very high level, the objective of sustainable development can be summarised as meeting the needs of the present without compromising the ability of future generations to meet their own needs" (para 7).

3.5 Transport is recognised as having an important role in promoting sustainable development:

"All developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed." (para 113).

3.6 With regards to parking standards, it states that:

"Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport.... In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists." (para 108)

3.7 When considering development proposals, NPPF notes that it should be ensured that:

- *"appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *safe and suitable access to the site can be achieved for all users;*
- *the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance...; and*
- *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree." (para 110)*

3.8 Furthermore, with regards to considering development proposals, it states that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe" (para 111)

and goes on to note that applications for development should:

- *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations. (para 112)*

Local Planning Policy

- 3.9 The Knowsley Local Plan Core Strategy was adopted by Knowsley Borough Council in January 2016 to replace the Unitary Development Plan that had been adopted in 2006. The Borough has also prepared a series of series of Supplementary Planning Documents (SPD). Parking standards for new developments are set out in *"Ensuring a Choice of Travel"*, which was published in 2010.

Ensuring a Choice of Travel SPD

- 3.10 The SPD has a focus on ensuring a good choice of travel modes to all new developments in order to:

".. reduce reliance on private cars. This will lead to lower levels of pollution, enhance the local environment, and promote healthier lifestyles. It will also improve road safety and congestion, and improve quality of development through better use of space"

- 3.11 The SPD also identifies the level of supporting information required for an application, based on the scale of the development. For a medium development (250 – 500 m² A1 food retail) as set out in Table 1, the application would need to address:

- Parking standards;
- Design and Access Statement;
- Minimum Accessibility Standard Assessment;
- Transport Statement/Assessment;
- Travel Plan; and
- Air Quality Assessment

- 3.12 The Borough policy on parking standards is set at Policy T6, which states that:

"Proposals for new development should provide or be served by a good choice of modes of travel appropriate to the scale and nature of the development, as follows:

- *Cycle parking facilities in accordance with the Council's minimum standards*
- *Car parking facilities which do not exceed the Council's maximum standards Parking facilities for the less mobile, delivery and other service vehicles within the site in accordance with the Council's minimum standards*
- *Safe and convenient vehicular access to and from the highway and within the site."*

- 3.13 The SPD notes at paragraph 4.5 that:

"For general car parking, the standards define upper limits for new developments. These maximum standards for car parking vary according to the location of a site. In more urban areas, sites are generally accessible to a larger proportion of the population on foot, cycle or public transport and therefore less reliance on private cars is encouraged by lower maximum

parking standards. In all areas there may be instances where provision should be less than the maximum specified for example where a site is particularly accessible by modes of transport other than the private car, or for example where a car club is proposed.”

- 3.14 The Borough’s adopted parking standards are set out at Appendix A of the document and the relevant standards for commercial food retail shops are reproduced in the following tables.

Table 3.1 Car Parking Standards

Land Use	Maximum parking* (per m ² of Gross Floor Area)			Minimum Disabled Parking Provision	
	Town Centre	District and Local Centre	Other Areas	Up to 200 bays	Over 200 bays
A1 – Shops – Food Retail	1 space / 16 m ²	1 space / 15 m ²	1 space / 14 m ²	3 bays or 6% of total capacity whichever is greater	4 bays plus 4% of total capacity
A4 – Drinking Establishments	1 space / 8 m ² of public floor area	1 space / 6 m ² of public floor area	1 space / 5 m ² of public floor area	3 bays or 6% of total capacity whichever is greater	4 bays plus 4% of total capacity

Source: Ensuring a Choice of Travel SPD; Knowsley BC

** For individual developments, the standards should apply as a maximum unless the applicant has demonstrated (where appropriate through a Transport Assessment) that a higher level of parking is needed. In such cases the applicant must show the measures they are taking (for instance in the design, location and implementation of the scheme) to minimise the need for parking.*

- 3.15 As the site is situated in a primarily residential area, the parking standards for “Other Areas” have been taken to be applicable.

Table 3.2 Motorcycle and Cycle Parking Standards

Land Use	Bicycles (Minimum)*	Motorcycles (Minimum)*
A1 – Shops – Food Retail	1 space per 140 m ² (minimum of 2 spaces)	1 space per 350 m ² (minimum of 2 spaces)
A4 – Drinking Establishments	1 space per 50 m ² (minimum of 2 spaces)	1 space per 125 m ² (minimum of 2 spaces)

Source: Ensuring a Choice of Travel SPD; Knowsley BC

*Based on Gross Floor Area

- 3.16 With regard to accessibility, the SDP notes that two of the Strategic Objectives of the replacement to the Council's UDP are:

"....to locate major new development where it is accessible by a choice of walking, cycling and public transport, thereby minimising the need to travel by car and..... to ensure that the design of new development provides a good level of accessibility to the whole community (including the less mobile) making appropriate and safe provision for vehicle parking, walking, cycling and public transport.

- 3.17 Reflecting this, Policy T6 - Ensuring Choice of Travel to serve new Developments, states that:

Proposals for new development should provide or be served by a good choice of modes of travel appropriate to the scale and nature of the development, as follows:

- Well lit, safe, convenient and clearly sign-posted footways and cycle routes both within the site and linking to the surrounding area and to public transport facilities;*
- Cycle parking facilities in accordance with the Council's minimum standards;*
- Car parking facilities which do not exceed the Council's maximum standards;*
- Parking facilities for the less mobile, delivery and other service vehicles within the site in accordance with the Council's minimum standards*
- Safe and convenient vehicular access to and from the highway and within the site;*
- Good provision of public transport to the site"*

- 3.18 Finally, the SDP describes the requirement for a Standardised Accessibility Assessment (as set out in Appendix B of the document). As set out at paragraph 5.6:

"For all medium, large and major development proposals the developer will assess the accessibility of sites by completing this assessment scoring system in Appendix B. The assessment scores for a proposed development will be reviewed and compared by the Council to minimum accessibility scores which have been developed with other authorities and partners on Merseyside."

4 Proposed Development

- 4.1 The proposed scheme comprises the development of a convenience store (342 m² GIA) to be located within The Holt public house car park. The public house will be retained as part of the proposed development. The layout of the existing car park would be reconfigured to provide a total of 12 car parking spaces (including 1 mobility space) together with a garden area for the retained public house.
- 4.2 An additional 13 parking spaces, including 2 mobility spaces, would be provided for the proposed convenience store together with an on-site loading bay. The proposed floor plan and car parking arrangement is shown at **Appendix B**.

Access Arrangements

Vehicular Access

Location

- 4.3 The proposed development would be served by the site access on Holt Lane with the access position slightly relocated to the south to improve visibility. The relocated access would cater for two way use. The highway comments stated that the access should be kerbed rather than set out as a crossover with dropped kerbs. However, the Road Safety Audit referred to below, did not raise this as a safety issue. Indeed, recent changes to the Highway Code reflect the current trend towards pedestrian priority over traffic at junctions and in that regard, the use of a crossover arrangement would support that position.
- 4.4 To address the concerns expressed by the highway officer in relation to the potential queuing back from the Warrington Road junction, the relocated site access would include a Keep Clear road marking to assist exiting traffic from the site.

Visibility

- 4.5 To address the concerns expressed in the highways response regarding the proposed relocation of the site access, a vehicle speed survey was undertaken on 7 July 2021 by radar gun on a dry, clear day. The results of the survey are reproduced at **Appendix C**.
- 4.6 A total of 100 readings were taken between 09:30 and 12:10 and between 12:40 and 15:00 for the northbound and southbound flows on Holt Lane. The 85%tile speeds for the northbound traffic for the two sets of readings were very similar at 21.2 and 22.0 mph respectively. This would equate to a maximum visibility splay distance requirement of 23.75 m when using the Manual for Streets calculation.

- 4.7 As can be seen from **Appendix D**, the proposed site access would provide visibility splays in excess of the required 23.75 m.

Road Safety Audit

- 4.8 In order to address the safety comments raised by the highways response, an independent Stage 1 Road Safety Audit (RSA) has been undertaken in relation to the proposed site access arrangements. The RSA report is reproduced at **Appendix E**. The RSA raised two items for further consideration; namely the potential for conflict between delivery and customer vehicles and the provision of pedestrian inter-visibility at the site access.

- 4.9 With respect to the potential conflict, the RSA stated that:

"It is noted from the swept path information provided that a delivery vehicle may occupy much of the access width, particularly when turning left into the site. Whilst deliveries are likely to be occasional, customer vehicles are likely to be entering and leaving the site on a more frequent basis. If two opposing cars cannot safely negotiate the access at the same time, this could lead to sudden/unexpected braking on Holt Lane and a risk of rear shunt collisions.

Recommendation:

It is recommended that a further swept path analysis is undertaken in order to ensure and demonstrate that two opposing cars can safely negotiate the access. It is also recommended that delivery times are appropriately scheduled, in order to avoid times when customer usage of the car park is likely to be high.

- 4.10 As set out in the above recommendation, a swept path plot of two large cars passing at the site access has been prepared and this is shown at **Appendix F**. As can be seen, the access is wide enough to accommodate the passage of two cars.
- 4.11 Deliveries to the proposed store would be arranged to avoid peak customer periods in order to minimise the impact of the delivery vehicle on the operation of the car park. To that end, it is envisaged that a Service Management Plan would be prepared to set out how deliveries to the site would be managed. This is discussed in more detail later in this document.
- 4.12 Turning to the inter-visibility point, the proposed site access layout includes a cut back to the edge of the property to provide an improved pedestrian visibility splay to the left, as can be seen from the proposed site layout drawing shown at **Appendix D**.

Pedestrian and Cycle Access

- 4.13 Access for pedestrians and cyclists will be taken via a footway link from Warrington Road and via the site access on Holt Lane. Some concern was raised in the highways response with regard to the proposed width of the pedestrian route from Warrington Road. In that regard, the doors to the public house will open inwards to avoid any possible obstruction of the footway.
- 4.14 The proposed footway, as shown at **Appendix B**, is 2.5 m wide at its narrowest point by the edge of the public house. The Recent advice on the capacity of footways, published by Transport for London⁴, recommends a width of 2.0 m without any obstruction to cater for a pedestrian flow of <600/hour. In a High Street or tourist location, a width of 2.6 m, including street lighting columns would suffice for the same level of pedestrian demand.
- 4.15 A similar document published by the Chartered Institute of Highways and Transportation⁵ identifies a desirable minimum width of 2.0m and a preferred width of 2.6 m (where located adjacent to high speed roads where it is preferable to allow an additional minimum of 0.6m to allow for vehicle overhangs and pedestrian "kerb shyness"). Pedestrian flows along the access will be well below 600 pedestrians per hour. On that basis, the proposed footway width provision of 2.5 m is considered to be acceptable.

Servicing and Refuse Collection

Servicing

- 4.16 The proposed convenience store would be serviced from within the Site, with deliveries made by an 8.4 m rigid vehicle. This is a typical vehicle used by Tesco and other store operators for sites in town centre locations with limited space. The proposed delivery bay is 12.0 m long to cater for tail lift deliveries if required. A swept path plot showing the passage of the delivery vehicle accessing and egressing the Site is shown at **Appendix G**.
- 4.17 Deliveries to the store are anticipated to take place twice a day over a five day period, and once a day at weekends. To minimise the impact on the site, servicing of the public house would take place outside opening hours of the public house and during quiet periods for the store.
- 4.18 By way of a highway improvement associated with the proposed development, it is proposed to amend the current servicing arrangements for the public house so that the brewer's dray would enter the site rather than continuing to deliver from the kerbside on Hale Lane. Deliveries take place on a weekly basis, with an occasional delivery by transit type vans. All deliveries would take place outside

⁴ Pedestrian Comfort Guidance for London; Transport for London 2019

⁵ Designing for Walking; CIHT March 2015

of public house opening hours and would utilise the vacant pub parking spaces to facilitate the turning requirements of the larger vehicle, as shown at **Appendix G**.

- 4.19 As noted above, a Servicing Management Plan will be adopted to set out how deliveries to the site would be managed so that the impact on the site and customers is limited. The public house receives a weekly delivery by brewer's dray with occasional deliveries by smaller vans, while the proposed convenience store would receive 2 deliveries per weekday and 1 delivery per day at weekends. The proposed scheme would include the use of internal servicing for the pub by utilising the proposed loading bay. This would remove the existing servicing arrangement that takes place from Hale Lane.
- 4.20 To facilitate the servicing arrangements for both parts of the site, a joint Servicing Management Plan (SMP) would be adopted. This would include a requirement for deliveries to the public house to take place prior to its opening hours so that use can be made of the pub car parking to provide manoeuvring room for the brewer's dray. The SMP will also set out servicing times and procedures for the proposed store so that the impact on the site and store customers during deliveries to the store are minimised and managed. This will include a restriction on the maximum size of delivery vehicle to 8.4 m.
- 4.21 It is expected that the SMP would be secured by planning condition and that all restrictions will be tied to the land / property rather than to the initial occupier. In that way, any future occupiers will be required to follow and adhere to the restrictions defined by the planning condition. This is a tried and tested method of controlling goods delivery arrangements and limiting goods vehicle sizes and is frequently required by condition on both local level planning decisions and by Planning Inspectors.

Refuse collection

- 4.22 All retail based refuse would be collected on the same vehicles used to deliver goods to the store. This would be addressed as part of the SMP described above. It is expected that refuse collection for the existing public house would continue to follow the current arrangements.

Car Parking Provision

- 4.23 Based on the gross floor area of the convenience store (342 m²), the maximum car parking standards set out in Table 3.1 for food retail shops would suggest a maximum of 25 car parking spaces and a minimum of 3 disabled parking bays, 2 motorcycle parking spaces and 3 cycle parking spaces. Similarly, an application of the parking standards for the existing public house would suggest a maximum provision of 27 car parking spaces and a minimum of 3 disabled bays, based on a public floor area of 137 m², plus a minimum of 3 cycle spaces and 2 motorcycle spaces.

Convenience store

- 4.24 As set out at Chapter 3, the parking standards adopted by Knowsley Borough Council are maximum values and the provision of spaces should be considered in conjunction with the Borough's objective to encourage sustainable modes of travel. It is also the case that the application of maximum parking standards for a convenience store would result in a significant over-provision of spaces. To reflect this, the proposed development would include a total of 13 parking spaces and justification for this reduced level of parking is set out in Chapter 6, following methodology applied by TPA successfully at multiple planning Inquiries / Appeals.
- 4.25 With regard to the requirement for a minimum of 3 disabled parking bays, it is considered that, in the context of a reduced parking provision of 13 spaces, a total of three spaces would amount to an over-provision (circa 23%) and for that reason, 2 disabled bays are proposed. Two motorcycle parking bays will also be provided as part of the development proposals in accordance with the parking standards. The spaces would be located along the side wall of the public house, approximately 3.0 m from the edge of the proposed loading bay, thus providing ample clearance at times when the bay is in use.

Public House

- 4.26 A total of 12 car parking bays are to be provided for the retained public house, of which 1 would be allocated as a disabled parking bay. Further analysis of car parking demand for the public house is provided in Chapter 6.

Disabled parking monitoring

- 4.27 As the level of disabled car parking provision is below the Council's minimum standards, it is suggested that the use of disabled parking at the site is monitored post-occupation, along with overall parking demand. An additional parking bay could be added to the convenience store parking area and to the public house parking area, using lining changes only, by converting the space adjacent to the proposed disabled bays. This review can be secured via planning condition.
- 4.28 With regard to demand for disabled parking, TPA has recently procured surveys of a car park at a Shell service station with a linked convenience store where the use of the disabled parking bay was recorded over two days. The survey results indicated that over the two days of the survey, only one vehicle utilised the disabled bay. This suggests the likelihood of a very low demand for disabled parking at a convenience store site.
- 4.29 Similarly, TPA has extensive experience of surveys at public house car park sites where it is common for disabled parking demand to be very low. One such example is a three day survey at The Piper in Chester. The survey revealed that the disabled bay was not used at all, despite the car park being

regularly utilised throughout the length of the survey. Copies of these surveys are provided at **Appendix H.**

- 4.30 The Council's suggested level of provision of 6 disabled parking bays for this small development is therefore considered to be without merit and would result in a wasteful and inefficient use of land. The overall provision of 3 disabled bays is considered to be far more suitable and is based upon a reasonable assessment of demand.

Cycle Parking

Convenience store

- 4.31 Based on the car parking standards set out in Table 3.2, and the gross floor area of the convenience store (343 m²), the proposed store should be provided with 3 cycle parking spaces. However, an increased provision of 6 covered spaces is now proposed. The additional spaces would be provided to encourage a greater level of non-car trips to the store.

Public House

- 4.32 The existing Public House currently has no cycle parking stands and the proposals would improve this situation by including two new cycle parking spaces for the public house. These would be located close to the entrance to the pub from Warrington Road.

5 Impact Assessment

Vehicle Trip Generation and Impact

- 5.1 This section of the report considers the vehicle trip generation of the proposed development. Reference has been made to the TRICS database (version 7.8.2) to obtain trip rates for the two land uses. It is noted that the highways response included a comment that the use of TRICS data was unsatisfactory in justifying a reduction in parking space provision. However, the TRICS data is included to provide an overall trip generation for the site.
- 5.2 It is also the case that the trip rates set out below for the proposed store are derived from surveys of a range of sites and store operators (in this instance Co-operative and One Stop) and are not site or operator specific. In practice, the size of the site for a Use Class E(a) development would be limited to a convenience store as it would be too small to cater for a larger food store. It is also the case that other uses under Class E(a) such as a pet store, builder's merchant or restaurant would be expected to generate less trips than a convenience store, thus considering trip generation for a convenience store is considered to be a robust, worst case assessment.

Convenience Store Trip Generation

- 5.3 Convenience stores with similar characteristics with regard to size and location were selected from the TRICS database using the following parameters in order to calculate a weekday trip generation:
- Category: 01/O: Retail/Convenience Store;
 - Location: England (Excluding Greater London);
 - Area: Suburban area and Neighbourhood Centres;
 - Sub Categories: Residential Zones
 - Survey dates: Surveys between 01/01/13 to 05/09/19; and,
 - Site without Travel Plans.
- 5.4 From a limited list of surveys that are available for this category, a total of four sites were identified using the above parameters to identify a weekday trip rate. The resulting TRICS output is reproduced at **Appendix I** and is summarised in Table 5.1.

Table 5.1 Convenience Store Weekday Vehicle Trip Attraction

Convenience store (343 m ²)	Trip rate/100 m ²		Vehicle Trip Attraction	
	In	Out	In	Out
08:00-09:00	9.277	9.482	32	33
17:00-18:00	8.663	8.731	30	30

Notes: Any Errors Due to Rounding

Source: TRICS database (version 7.8.2)

- 5.5 As can be seen, the proposed convenience store is predicted to generate an AM peak hour 2 way flow of 65 vehicles and a two way flow of 60 vehicles in the corresponding PM peak hour.

Public House Trip Generation

- 5.6 The following parameters were applied to a TRCS search to obtain weekday trip rates for the pub:

- Category: 06/C Hotel, Food and Drink – Pub/Restaurant;
- Location: England (Excluding Greater London);
- Area: Edge of town;
- Sub Categories: Residential Zones
- Survey dates: Surveys between 01/01/13 to 11/06/19; and,
- Site without Travel Plans.

- 5.7 Three sites were selected on the basis of the above parameters and the full TRICS weekday public house trip rate output is reproduced at **Appendix J**. The resulting trip rates and vehicle trip generation for a weekday are summarised in Table 5.2.

Table 5.2 Public House Vehicle Trip Generation - Weekday

Public House (445 m ²)	Trip rate/100 m ²		Vehicle Trip Attracted	
	In	Out	In	Out
08:00 - 09:00	-	-	-	-
17:00 - 18:00	4.012	2.857	18	13

Notes: Any Errors Due to Rounding

Source: TRICS database (version 7.8.2)

- 5.8 As can be seen, the TRICS data suggests that the existing public house could be expected to generate 31 two-way vehicle trips in the PM peak hour.

Pass by and Diverted Retail Trips

- 5.9 While the above has identified the predicted trip generation of the proposed site, it is the case that the majority of the trips to the store would be pass-by or diverted trips, where customers are already on a journey and choose to drop in the store to shop to pick up a few items (e.g. bread or milk) for the day or to complete a bigger shop for a missing item or two.
- 5.10 In that regard, TRICS Research Report 14/1 published in 2014 provides references to 'Pass-By & Diverted Trips Academic Research' within Section 6, where, in relation to a sample of 13 convenience stores⁶, it states at paragraph 6.10 that: *"The average percentage of pass-by trips recorded was 72%, with a range between the 13 stores of 61 to 85%".*
- 5.11 Based on the predicted traffic generation in Table 5.1, the average pass-by figure would suggest that the new, as opposed to pass-by, trips associated with the proposed store might equate to a two way peak hour flow of 16 vehicles – i.e. less than 1 every 3 minutes.

⁶ Ghezawi et al. (1998) Convenience Store Trip Generation

6 Parking Assessment

- 6.1 While the preceding section considered the requirements for vehicle trip generation and each land use in isolation, this section of the report will assess the ability of the scheme to cater for the differing demands of a convenience store and a public house in terms of the proposed parking provision.

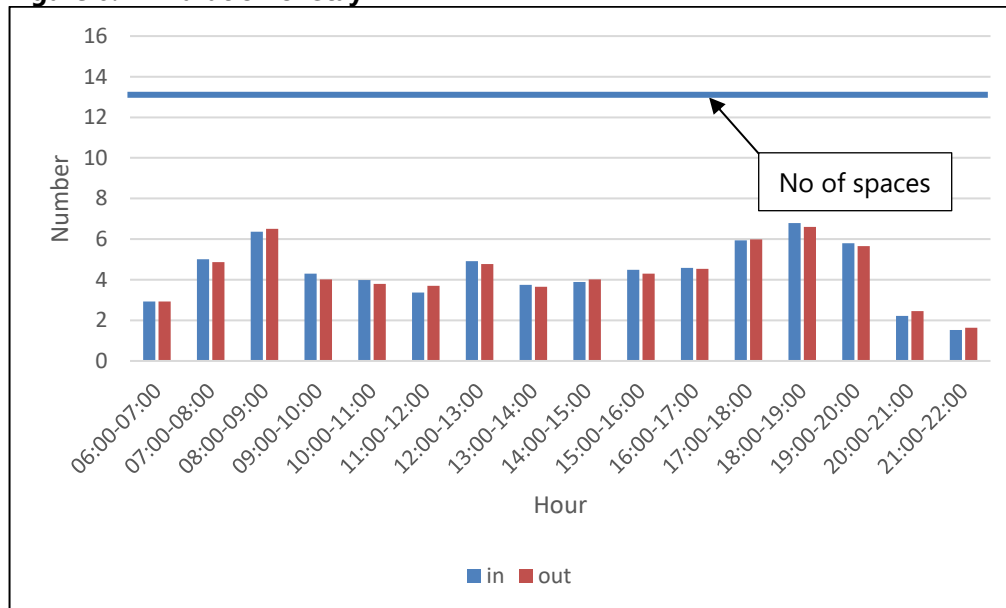
Proposed Convenience Store Parking Demand

- 6.2 When considering parking demand for a convenience store, a simple parking accumulation based on TRICS data does not provide an accurate reflection of the site's use and the demand flows each hour. This is because the survey data, which is presented in hourly flows, does not reflect the limited duration of stay of those accessing a convenience store.
- 6.3 The nature of a convenience store is to cater for the small shopping trips to pick one or two items of groceries (either for that day or to source items missed from a larger supermarket shopping trip). As such, the time required to find and purchase the few items required would be unlikely to exceed more than say 10 minutes. When combined with the time taken to walk to and from the car park, this would indicate a duration of stay of approximately 12 minutes. This figure is considered to be extremely robust, based on evidence of actual duration of stay at a convenience store car park⁷, which is provided at **Appendix K**.
- 6.4 The Trethomas site referenced in the Appendix contains a Tesco Express, a charity shop and a barber shop (plus one vacant unit) and includes a car park with 19 spaces. The total floor area of the three operational units on site is 557 m². The data shows duration of stay was recorded for every parking act and the average duration of stay for each day is presented below:
- Friday - 8 minutes and 6 seconds
 - Saturday - 11 minutes and 12 seconds
 - Sunday - 6 minutes and 45 seconds
- 6.5 The Trethomas survey data illustrates that the 12 minute duration of stay figure used above is suitable and robust, particularly given that the site includes other units which would be expected to generate longer dwell times and greater parking demand.
- 6.6 On that basis, the actual capacity of a convenience store car park would be significantly higher than that suggested by a simple review of peak hour arrival and departure flows because the duration of stay is far shorter than that implied by a review of peak hour data.

⁷ Trethomas site, located on Newport Road CF83 8BY

- 6.7 A typical duration of stay of 12 minutes would suggest that each parking space could accommodate up to 5 vehicles in an hour. This in turn suggests that the proposed 13 spaces for the convenience store could accommodate up to 65 vehicles per hour. This illustrates that the hourly capacity for a convenience store car park is significantly higher than the number of spaces provided on-site.
- 6.8 This can be demonstrated by the chart shown at **Figure 6.1** that shows the impact of a limited duration of stay, based on the TRICS data referenced in Chapter 5.

Figure 6.1 Duration of stay



- 6.9 Further evidence to support the use of limited parking can be found in the TRICS database where, for example, of a total of 3 Co-op stores included in the data, only 1 has parking provided. That store⁸, which is of similar size (330 m² GFA) to the proposed scheme, has 12 parking spaces provided on site. This data is reproduced at **Appendix L**.
- 6.10 A similar sized Co-op store was the subject of a traffic survey conducted by TPA in 2014. The store, which is situated in Bedfordshire in a village centre location, had a GFA of 332 m² and a total of 15 customer parking spaces. The survey, which was undertaken on a Tuesday and Saturday in mid-February, showed that the maximum parking accumulation of the store was 8 spaces. The survey results are reproduced at **Appendix M**. Given the location of the store in the centre of the village, the opportunity for visits to other shops would have extended the duration of stay, but the overall occupancy per hour remained at just over 50% of the total parking capacity.
- 6.11 On the basis of the above, it would be reasonable to expect that a similar operational profile would occur at the proposed store in terms of parking demand. For that reason, the provision of 13 spaces is considered to be acceptable for a convenience store. As noted in the preceding Chapter, the

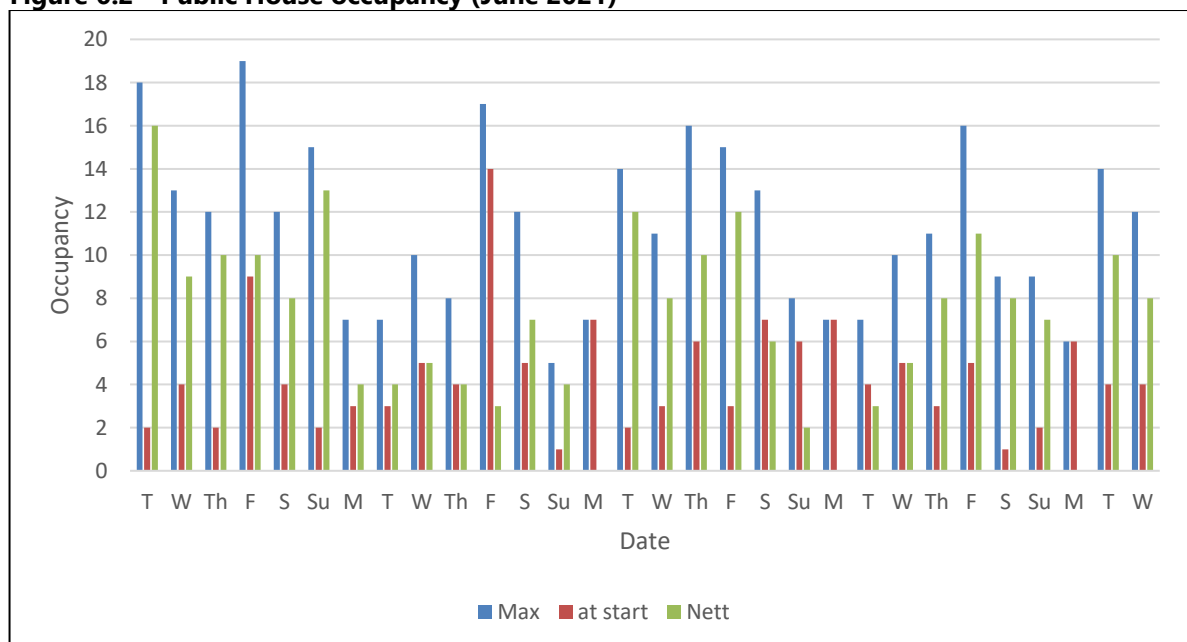
⁸ TRICS reference TW-01-O-02

proposed convenience store could be expected to generate a higher demand for car parking than other potential Class E(a) uses, given the size of the development site.

Public House Car Parking Demand

- 6.12 It is understood that the existing car park is in use throughout the day, despite that fact that the pub only opens at midday. It is very likely that the early use of the car park is associated with the parking restrictions in the vicinity of the site and the current lack of visitor parking at the hospital. As such, it does not reflect the actual demand associated with the public house.
- 6.13 To provide some context for this, data recorded by an Automatic Number Plate Reader (ANPR) located on site has been examined. The ANPR was in place to record parking activity but was not linked to any form of car park management.
- 6.14 Data from the ANPR for the whole of June 2021 has been provided for analysis. This data, after the removal of misread number plates and other extraneous readings, clearly shows that the car park was in use before midday on every day in June. It also shows that a number of vehicles made repeat visits to the car park every day (i.e. not just prior to the opening of the pub), which strongly suggests the presence of taxis or drop off/pick-ups by private cars.
- 6.15 **Figure 6.2** shows the results of the ANPR survey in terms of peak accumulation, with a separate entry for the number of cars present at the start of each days survey data.

Figure 6.2 Public House occupancy (June 2021)



- 6.16 As can be seen from the above Figure, the total occupancy reflects the car park capacity of 20 parking spaces. However, when an allowance is made for the starting position, the actual peak occupancy level is somewhat lower (shown as Nett). Taken as an average across the whole month, the average peak occupancy is 11 vehicles and the average number of non-pub related vehicles in the car park at the start of each day is 4.
- 6.17 This suggests that the average parking demand associated with the pub is 7 (i.e. 11 - 4) but this ignores the likelihood that the non-pub parking continues to take up spaces throughout the day – i.e. it serves to raise the average figure. While it is acknowledged that the ANPR data may have been affected by the impact of Covid-19 pandemic restrictions, any attenuation in demand is likely to have equally affected both pub and non-pub visitors to the car park.
- 6.18 Based on the above, it is considered that the proposed provision of 12 parking spaces, allied to the introduction of parking measures (as discussed below) to prevent the ad-hoc use of the car park will be sufficient to cater for the existing level of demand.
- 6.19 It is also the case that the on-street parking restrictions in the vicinity of the site, as described in Chapter 2, would prevent any day time parking overspill as customers for the public house would not be able to lawfully park on-street. Customers arriving at the site by car who are unable to find a parking space on site would be required to either use public car parks in the vicinity or to continue on to an alternative venue.
- 6.20 In that regard, the no waiting ban on Warrington Road in the vicinity of the site could be revised to include kerb bar markings to remove the 20 minute grace period that, notwithstanding the presence of the adjacent traffic signals, drivers might seek to utilise to drop in to the proposed store. This could be further reinforced through the use of bollards or pedestrian guard rail along the kerb edge, should the highway authority deem that to be necessary and suitable.
- 6.21 Finally, the provision of car parking spaces at a lower level than that suggested by the application of maximum parking standards is in keeping with the aims and objectives of the Council's "Ensuring a Choice of Travel" SPD that seek to encourage sustainable transport choices.

Car Park Management

- 6.22 A car park management plan will be put in place in order to ensure that parking for the two uses on site is managed effectively. The retail parking spaces will be subject to a maximum stay limit that would be enforced by a management company with suitable signage / lining to prevent abuse by those not visiting the store. The public house parking spaces will be clearly signposted for use by patrons of the public house and will be enforced, via an ANPR based system by a management company, that would require patrons to register their car number plate upon entering the pub.

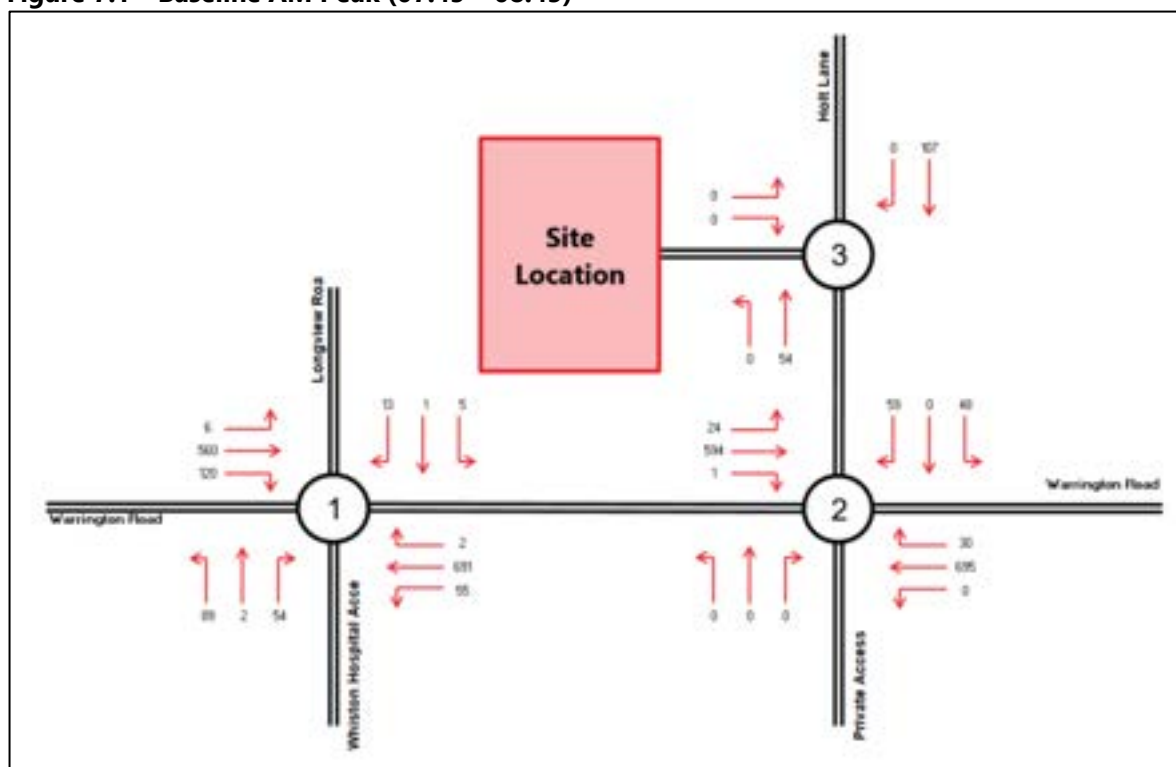
7 Junction capacity analysis

- 7.1 To address the highway comments regarding the impact on highway capacity of the proposed development, it was agreed with officers at St Helens Council⁹ that a capacity analysis of the junctions of Holt Lane and the Whiston Hospital site access with Warrington Road should be undertaken.
- 7.2 Based on the signal timing data received from St Helen's Council, the two junctions are operated by a single controller and utilise Microprocessor Optimised Vehicle Actuation (MOVA). As such, the sequence and operation (including cycle time) of the junction will vary to meet the level of traffic demand through the two junctions. The signal data is reproduced at **Appendix N**.

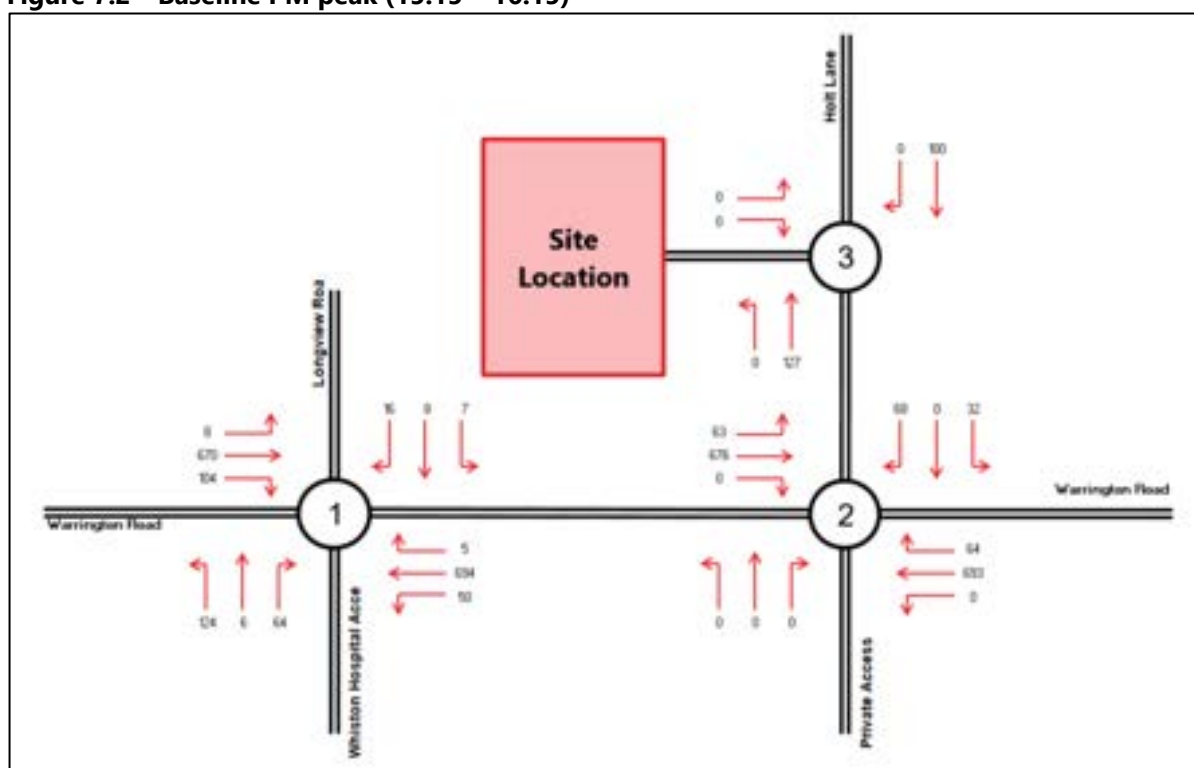
Baseline

- 7.3 To determine baseline traffic conditions, a traffic survey was undertaken by 360 Traffic Surveys Limited in May 2021, the results of which are reproduced at **Appendix O**. The surveys were undertaken in late May, after Covid-19 restrictions were eased as discussed with the Network Manager at St Helens Council.
- 7.4 Baseline flow diagrams have been prepared utilising the survey data, based on the observed network peak periods and the resultant diagrams are set out below at **Figure 7.1**, **Figure 7.2** and **Figure 7.3**.

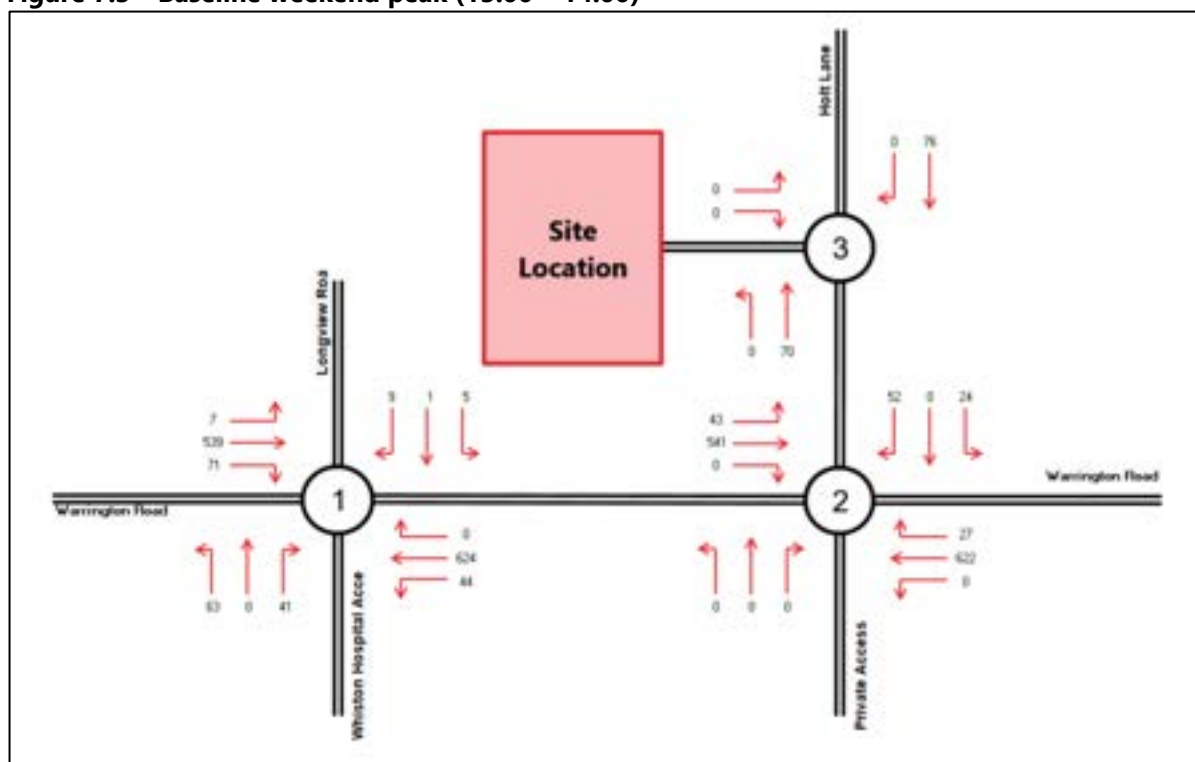
⁹ St Helens BC email dated 29.4.21

Figure 7.1 Baseline AM Peak (07:45 – 08:45)

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Figure 7.2 Baseline PM peak (15:15 – 16:15)

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Figure 7.3 Baseline weekend peak (13:00 – 14:00)

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Development flows

- 7.5 An initial capacity assessment was undertaken based on the earlier application details, as set out in TPA document reference 1911-011/TS01B dated February 2020. The predicted development flows that were included in the TS, which are slightly greater than those set out in Chapter 5, are reproduced below.

Table 7.1 Total Additional Vehicle Trip Attraction – Weekday

	AM peak (08:00 – 09:00)		PM peak (17:00 – 18:00)	
	In	Out	In	Out
Convenience store (366m²)	33	32	40	45
Public House (net)	0	0	0	0
Total	33	32	40	45

Source: Table 5.3 of TPA Transport Statement 1911-011 TS01B

- 7.6 As TRICS has a very limited number of weekend surveys for convenience stores (which would provide a lower trip rate than the weekday data), the weekday PM peak hour was utilised to allow a robust

worst-case assessment. Additionally, no allowance has been made for the effect of pass-by or linked trips, effectively assuming all trips identified in the above Table are new to the network. This would add additional trips to the local network, thereby resulting in a very robust approach, given that the majority of trips to a convenience store are made by drivers already on the network (as referenced in Chapter 5).

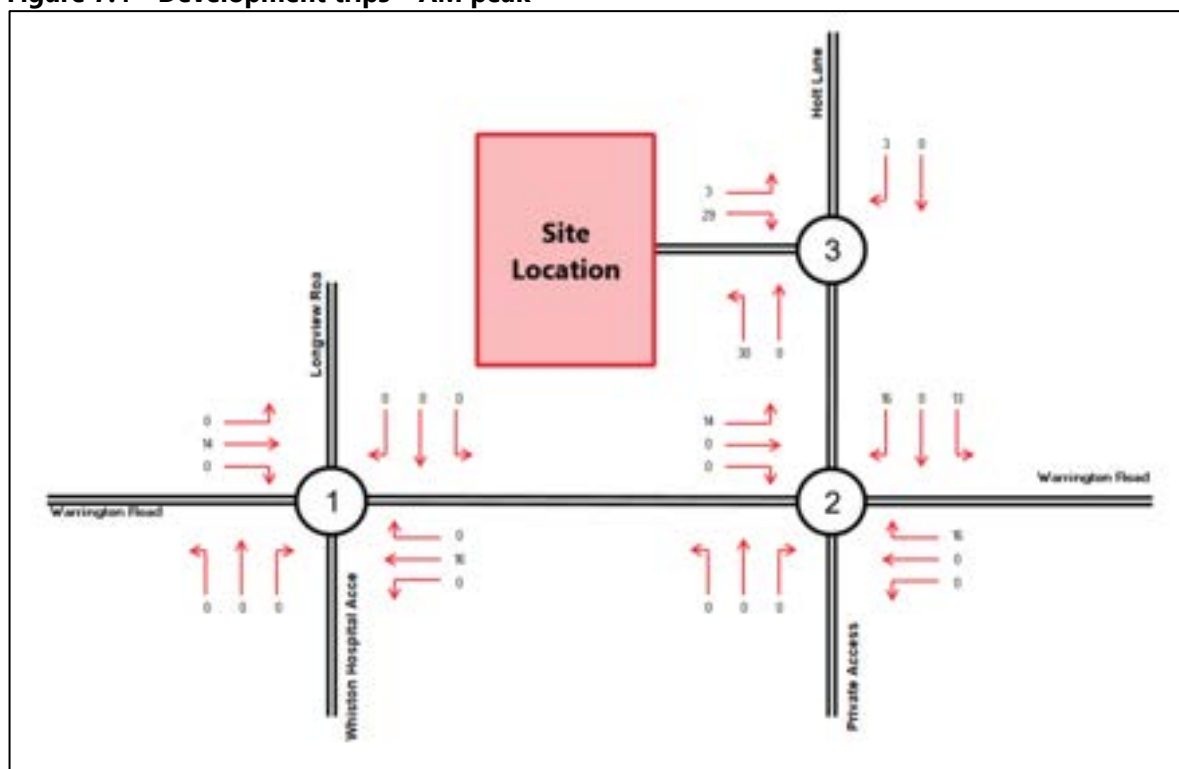
Trip distribution

7.7 The following distribution assumptions were used to assign the trip attraction of the development proposals onto the local road network, based on the total movements travelling eastbound and westbound at Junction 2 (Holt Lane / Warrington Road).

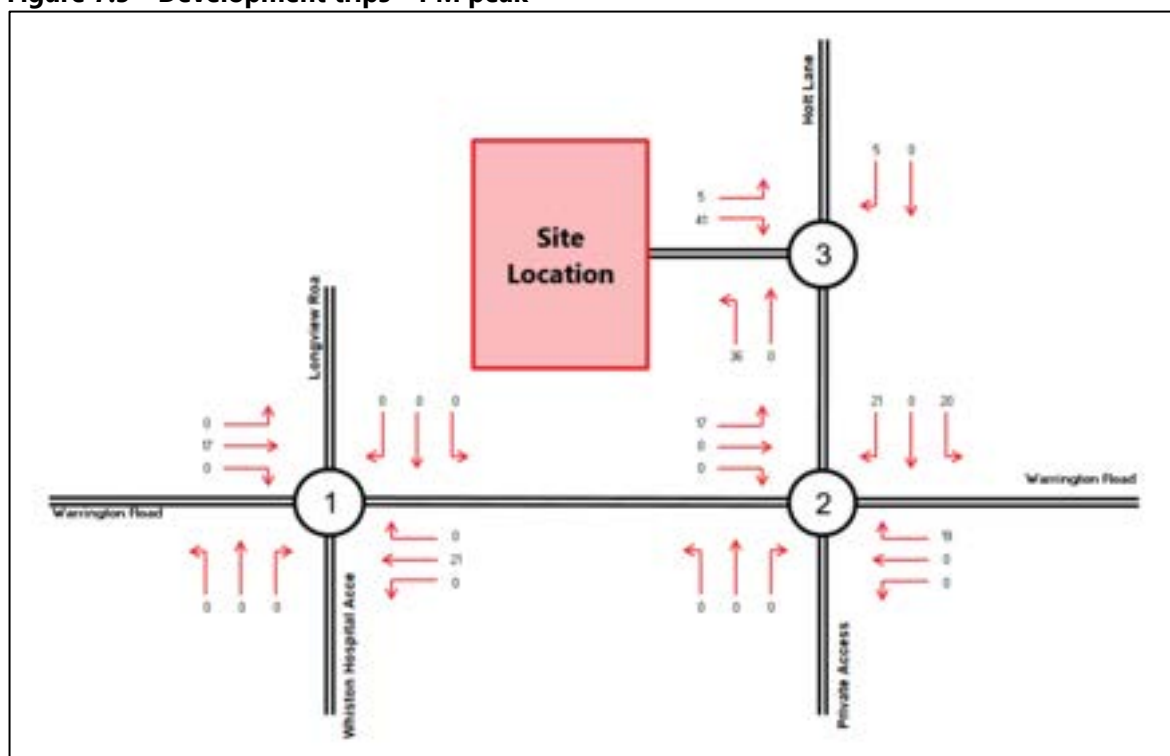
- 90% of arrivals would route from Warrington Road with the remaining 10% arriving from the north of Holt Lane;
- 90% of departures would route to Warrington Road with the remaining 10% turning left out of the site onto Holt Lane;
- Trips arriving/ departing on Warrington Road would not use any of the other minor arms (i.e. no vehicular trips would occur between the Whiston Hospital car park access, Longview Road, or the two private driveways);

7.8 Based on the above, the distributed development trips are shown at **Figure 7.4** and **Figure 7.5**.

Figure 7.4 Development trips – AM peak

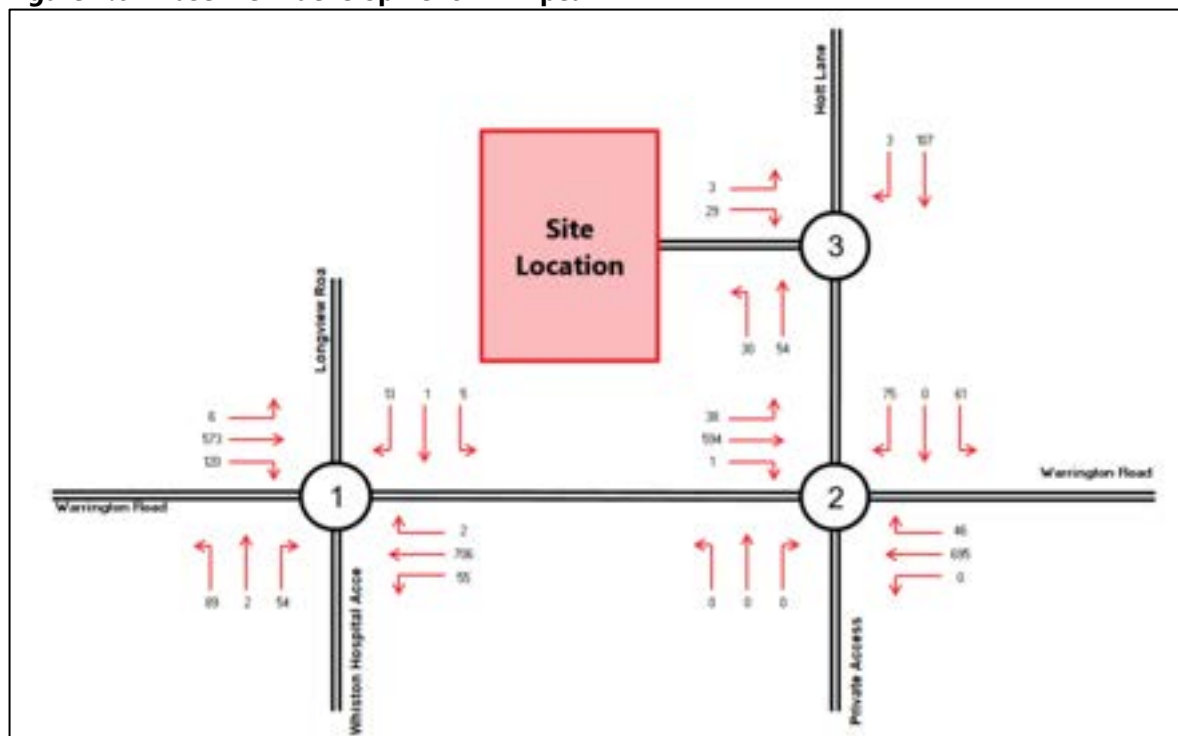


Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

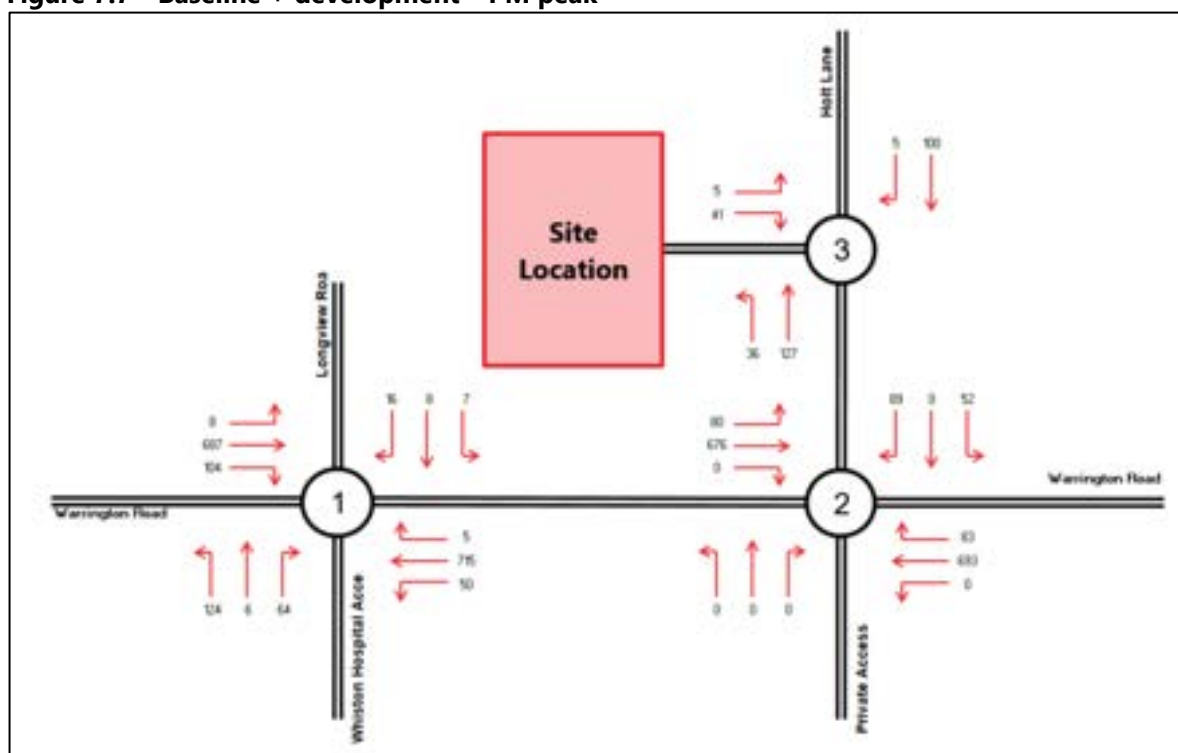
Figure 7.5 Development trips – PM peak

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

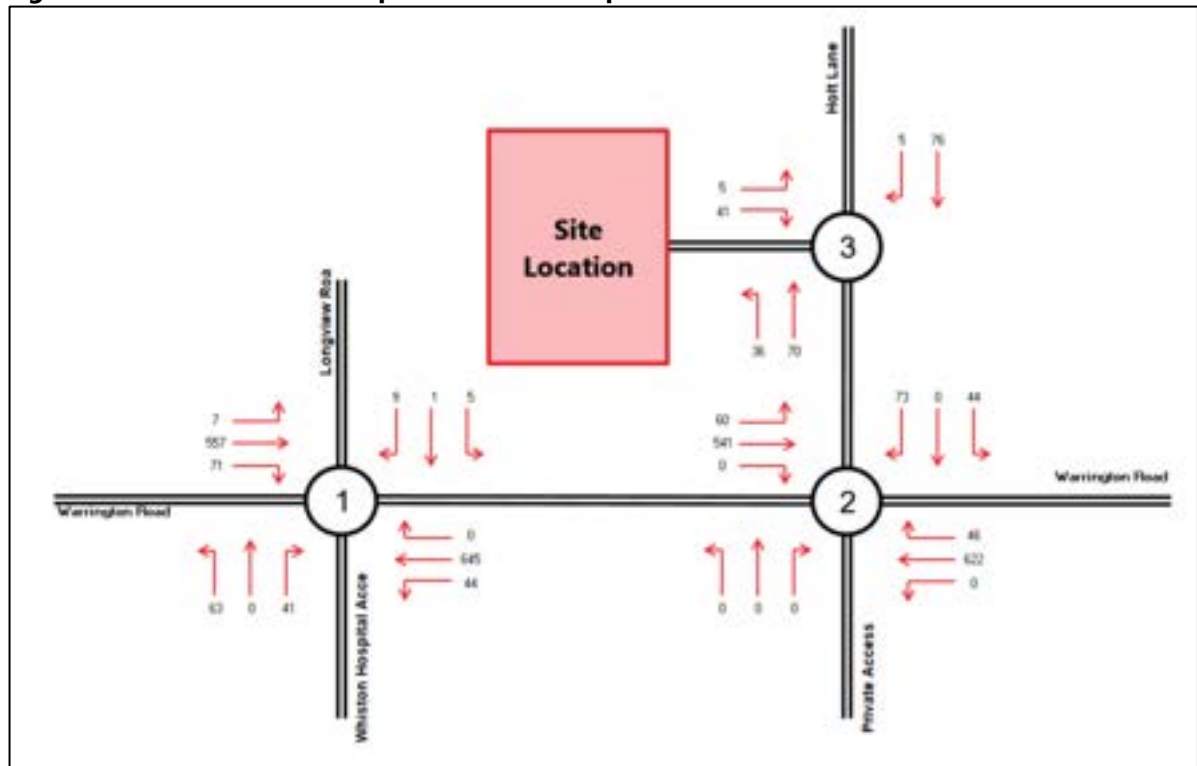
- 7.9 The resulting combined baseline and development flows are set out at **Figure 7.6**, **Figure 7.7** and **Figure 7.8**.

Figure 7.6 Baseline + development – AM peak

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Figure 7.7 Baseline + development – PM peak

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Figure 7.8 Baseline + development - weekend peak

Notes: flows in passenger car units (PCU)
Any arithmetical errors due to rounding

Analysis

- 7.10 As set out previously, the junction operates utilising MOVA, and as such, its operation will vary dependant on the demand. MOVA will provide additional green time to movements where required, to effectively manage the queues and maximise capacity. In doing so, it will amend or skip stages that are not required.
- 7.11 With regard to the two demand controlled private driveways at the Holt Lane / Warrington Road junction, the survey data suggests that these phases run very infrequently during the peak hours and as such, the associated stages have been excluded from the stage sequence utilised in the modelling.
- 7.12 Focusing on the traffic phases, it is considered that the Longview Road arm would be unlikely to run every cycle given its low quantum of movements.
- 7.13 A review of the pedestrian crossing usage was undertaken for the peak periods modelled. The review suggested that the all-red pedestrian stages for both junctions do not run every cycle. For the purposes of the assessment, it has been assumed that they run at every alternate cycle.

- 7.14 The two junctions have been modelled utilising LinSig version 3 for the baseline and with development scenarios. A summary of the results is contained within Table 7.2, with a copy of the full LinSig output and the geometry drawing reproduced at **Appendix P**.

Table 7.2 Junction Capacity Analysis

Scenario	Time Period	Maximum Degree of Saturation	Practical Reserve Capacity	Cycle Time
Baseline	AM	85.4%	5.3%	210s
	PM	89.3%	0.8%	204s
	Weekend	87.4%	3.0%	190s
With Development	AM	87.2%	3.2%	210s
	PM	90.0%	0.0%	212s
	Weekend	87.3%	3.1%	194s

Source: Based on the modelling report contained within **Appendix P**

Notes: As this junction operates with MOVA, queue data has been excluded from the summary, as it will vary dependant on the stage sequence determined by the software

- 7.15 As set out in Table 7.2, the results of the modelling show that the junction would continue to operate with spare capacity (i.e does not exceed 90% Practical Reserve Capacity) in the “with development” scenario, even when adopting the worst case scenario assumptions described above.
- 7.16 The LinSig modelling is based on an assumed stage sequence. With the presence of MOVA, it is likely that the junction would perform better than the predicted results. As an example, whilst the results indicate queuing on Warrington Road between the two junctions in excess of what is achievable, the effects of MOVA control would not allow this to occur in reality.
- 7.17 The highway comments raised concerns in relation to the short right turn lane for traffic on Warrington Road and the potential impact of the relocated site access on the operation of the junction. The LinSig analysis includes an allowance of a 2 passenger car unit non-blocking storage (right turn lane ahead of the stop line). The modelling results did not highlight any issue associated with the moderate increase in right turning traffic resulting from the proposed scheme. As set out above, the robust analysis demonstrates that the junction is predicted to continue to operate without a loss of capacity.
- 7.18 As referenced earlier, a Keep Clear road marking will be introduced opposite the site access to cater for queuing at the junction and the ability of vehicles to exit the site towards the junction. Finally, there is no reason why the proposed scheme would impact on the blue light corridor associated with

Whiston Hospital, given that the majority of trips associated with the proposed store would already be on the highway network.

Summary

- 7.19 Based on the capacity analysis undertaken above it is considered that the development proposals will not result in a significant or severe impact on the operation of the existing signal controlled junctions.

8 Minimum Accessibility Standard Assessment

- 8.1 As required by the "Ensuring a Choice of Travel" SPD prepared by Knowsley Borough Council, a Minimum Standard Accessibility Assessment (MASA) has been undertaken for the proposed convenience store. The MASA identifies a range of minimum scores to determine the degree of accessibility for a development in a range of locations. The resulting MASA score for the proposed development is set out in the following table.

Table 8.1 MASA for proposed convenience store

Development type	Location	Size	Score							
			Walking		Cycling		PT		Parking	
			Min	Score	Min	Score	Min	Score	Min	Score
A1 retail	Other urban	Medium	4	4	3	4	4	5	1	2

Based on Table B.1, "Ensuring a Choice of Travel" SPD

- 8.2 As can be seen, the proposed development scores 15, which is excess of the minimum requirement (12) of the MASA.

9 Travel Plan

- 9.1 In order to address the last of the highway comments, a staff Travel Plan (TP) will be prepared for the proposed convenience store. The TP will focus on staff travel to the site as this would be a more realistic focus for the TP than seeking to influence customer travel to the store.
- 9.2 In doing so, the ability of staff travelling to and from the store when working early and late shifts at the store will be taken into account through the use of initiatives such as car share and "ride home" to cater for emergencies or unforeseen circumstances.
- 9.3 A framework Travel Plan will be submitted as part of the supporting documentation for the planning application.

10 Summary & Conclusions

Summary

- 10.1 Transport Planning Associates has been appointed by Cordage Estates Limited to provide transport and highways advice in relation to the proposed development at The Holt public house in Rainhill, Prescott.
- 10.2 The Site is located at 285 Warrington Road in Rainhill, Prescott and is currently in use as a car park for The Holt public house. Vehicular access is taken from Holt Lane. Holt Lane meets Warrington Road at a traffic signal controlled junction.
- 10.3 The public house car park provides approximately 20 car parking spaces, including two disabled parking spaces. It is understood that the pub is currently serviced from Holt Lane, with barrels taken into the site via the site access.
- 10.4 The Site is located in a predominantly residential area. Whiston Hospital is located to the west of the site with its site access located approximately 95 m to the west of the Holt Lane/Warrington Road junction. The site does not allow visitor parking.
- 10.5 The majority of the surrounding residential area lies within 1,200 m of the site, which is located in an accessible area with good pedestrian and public transport facilities
- 10.6 The proposed scheme comprises the development of a convenience store (342 m² GIA) to be located within The Holt public house car park. The public house will be retained as part of the proposed development. A total of 13 parking spaces, including 2 mobility spaces, would be provided for the proposed convenience store together with an on-site loading bay.
- 10.7 The layout of the existing car park would be reconfigured to provide a total of 12 car parking spaces (including 1 mobility space) together with a garden area for the retained public house.
- 10.8 It is proposed to amend the current servicing arrangements for the public house so that the brewer's drays would enter the site rather than continuing to deliver from the kerbside on Hale Lane
- 10.9 The proposed development would be served by the site access on Holt Lane with the access position slightly relocated to the south to improve visibility. The relocated access would also cater for two way use and would provide visibility splays in excess of 23.75 m.

- 10.10 The majority of the trips to the store would be pass-by or diverted trips, where customers are already on a journey and choose to drop in the store to shop to pick up a few items (e.g. bread or milk) for the day. This would suggest that the additional trips associated with the proposed store might equate to a two way peak hour flow of 16 vehicles – i.e. less than 1 every 3 minutes.
- 10.11 The duration of stay at the proposed store would be unlikely to exceed more than say 10 minutes. When combined with the time taken to walk to and from the car park, this would indicate a duration of stay of approximately 12 minutes. A typical duration of stay of 12 minutes would suggest that each parking space could accommodate up to 5 vehicles in an hour. This in turn suggest that the proposed 13 spaces for the convenience store could accommodate up to 65 vehicles per hour.
- 10.12 A car park management plan will be put in place in order to ensure that parking for the two uses on site is managed effectively. The retail parking spaces will be subject to a maximum stay limit that would be enforced by a management company with suitable signage / lining to prevent abuse by those not visiting the store. The public house parking spaces will be clearly signposted for use by patrons of the public house and will be enforced, via an ANPR based system by a management company.
- 10.13 A LinSig capacity analysis undertaken for the two traffic signal controlled junctions by the site on Warrington Road shows that the development proposals will not result in a significant or severe impact on the operation of the junctions.
- 10.14 A framework Travel Plan, focussed on staff working at the proposed convenience store, will be submitted as part of the supporting documentation for the planning application.

Conclusions

- 10.15 The proposed development at The Holt, Rainhill would provide a 342 m² convenience store, located in a largely residential area with good access to local amenities.
- 10.16 The proposed development is not predicted to result in either a significant or severe impact on the local highway network.
- 10.17 Based on the above, there are no transport or highway reasons why the proposed development should not be granted planning consent

APPENDIX A

Date:	06/04/2020
To:	Lee Osborne
Planning App. No:	20/00102/FUL
Proposal:	ERECTION OF CONVENIENCE STORE (USE CLASS A1); RETENTION OF PUBLIC HOUSE (USE CLASS A4) AND DEMOLITION OF OUTBUILDING; REPLACEMENT OF FREEZER STORE AND RESITING OF SMOKING SHELTER AND BEER GARDEN TOGETHER WITH ALTERATIONS TO CAR PARK AND VEHICULAR ACCESS FROM HOLT LANE
Location:	Holt Hotel, 285 Warrington Road, Prescot, Knowsley, L35 5AD

Highway Objection.

Highways is unable to support the application as proposed. There is a severe highway safety concern due to the residual cumulative impacts of the development on the immediate and local highway network.

The main safety issue is displaced parking - the development does not provide sufficient parking to ensure that traffic generated by the proposals can be contained within the development site which raises concerns over the effect on the safety of adjoining highways.

To reduce the traffic impact of larger developments on capacity and provide a sustainable approach to parking - applicants would be expected to produce transport assessments (or Transport Statement in this case) including travel plans (where appropriate – as in this case see Policy T9b of Ensuring a Choice of Travel), showing how they can resolve capacity issues and/or influence staff/customers to travel to the site other than by car. This has not been the case with this proposal. Indeed Highways has many queries and disputes some of the statements and premises presented in the TA.

Also, the increase in turning traffic will be detrimental to highway safety particularly given the proximity to the junction and hospital entrance, with the need to keep the route clear for emergency vehicles.

It is further considered there will be problems of distraction, obstruction and the maintenance of pedestrian/cycle routes and their desire lines.

The immediate and local highways are historically and currently subject to parking issues – mainly by vehicles associated with the nearby hospital. This has been identified, 6.14 - 6.17, but not satisfactorily addressed or mitigated and the development will exacerbate issues detrimentally. This has been noted in several of the objections received.

Whilst the Supplementary Planning Document (SPD) “Ensuring Choice of Travel” as referred to sets maximum parking standards (for cars) the reduction from 25 (maximum) to 13 for the

shop unit is deemed insufficient as is the provision for disabled, cycle and motorcycle parking which are minimum standards as per the SPD.

The justification for the reduction – the TRICS calculation and additional comparative analysis and parking accumulation – is considered unacceptable with an insufficient number of sites (TRICS 2016 Good Practice states 5 is a small data set) for analysis and sites not being comparably suitable – village centre location, 25 parking spaces, Saturday as survey day etc.

In addition there are inaccuracies in the Transport Statement (TS) eg the provision of disabled spaces – the plan shows a total of two spaces, the TS states that there are two disabled spaces for the shop and one for the pub. As aforementioned disabled, bike and motorcycle standards are minimums and the numbers offered are unacceptably low. The motorbike spaces are not safely accessed when a delivery vehicle is present and there is no long-term (covered) cycle provision for staff members and only two spaces for the two premises in an unsuitable location. In short the proposal does not offer accessibility for pedestrian (see below) and cyclists.

It should be noted the pedestrian walkway between the units is unacceptably constricted by outward opening pub doors and the cycle storage space will further congest this narrow passageway utilised by both premises as the primary sustainably access route.

The pub currently has 30 marked spaces (see Google maps – a site visit was not appropriate due to Covid 19 guidelines) not the approx. 20 as stated in 2.1. It has not been demonstrated that a reduction from the maximum 28 to a dozen is sufficient – a parking accumulation for the site as it currently operates should have been presented rather than that which was offered, unacceptably as aforementioned, to display current parking levels and therefore any spare capacity. 6.16 of the TS stated that the 12 spaces retained “should be able to support the operational needs of the pub” – this has not been demonstrated and is unacceptable especially given the pub producing 40 2/way trips an hour, 5.6 to 5.8 and Appendix D.

Therefore the applicant has not demonstrated a sufficiency of parking for either unit individually let alone as two units on one site. Further the measures to mitigate insufficiency/control of parking are inadequate and/or lacking in detail.

There are no details of the CPMP, 6.22, or how enforcement will ensure that parking restrictions (again not specific) will be undertaken to ensure availability of parking spaces.

With regards to servicing how can it be ensured that the size of delivery vehicles will be restricted, 6.21? Further there does not appear sufficient room to unload the delivery vehicles (2 a day) presumably with a tail lift and cages to be manoeuvred about the public thoroughfare and main entrance ie unsafe accessibility. The swept path analysis is similarly unacceptable. Details of the Servicing Management Plan, 6.16, presumably to ensure the shop and pub deliveries do not coincide are not forthcoming. How will it be ensured all deliveries will happen before midday, the public house opening time, 4.7? Similarly, a 10.35m rigid vehicle has been stated as the waste service for the site, 4.6, – this is unsubstantiated, nor able to be guaranteed.

Employment number of 20-25 staff (for the shop alone) has been stated, detail of shift patterns and numbers present at any one time (impacting on parking requirements) have not been detailed.

A Minimum Accessibility Standard Assessment, as per the aforementioned SPD, was not offered.

A Framework Travel Plan, in lieu of a Full Travel Plan on occupation, was not forthcoming.

In summary, the provision of parking is deemed unsatisfactory in terms of number, also servicing, manoeuvring and accessibility are unacceptable and no supportable mitigation has been offered. This on a site with more parking currently for one function than proposed when two discrete functioning units are proposed, operating and sharing the same parking and access. The site is in an area that has current and historic issues with parking, associated with the nearby hospital and therefore the cumulative effects give rise to a severe safety concern and an unsupportable proposal.

It should be noted that the border location of the site, with St Helens Council, meant a clerical error and residents of that borough not being consulted initially, which is now being rectified.

Date:	25/08/2020
To:	Lee Osborne
Planning App. No:	20/00102/FUL v2
Proposal:	ERECTION OF CONVENIENCE STORE (USE CLASS A1); RETENTION OF PUBLIC HOUSE (USE CLASS A4) AND DEMOLITION OF OUTBUILDING; REPLACEMENT OF FREEZER STORE AND RESITING OF SMOKING SHELTER AND BEER GARDEN TOGETHER WITH ALTERATIONS TO CAR PARK AND VEHICULAR ACCESS FROM HOLT LANE
Location:	Holt Hotel, 285 Warrington Road, Prescot, Knowsley, L35 5AD

Highway Objection.

Highways is unable to support the application as proposed. There is a severe highway safety concern due to the residual cumulative impacts of the development on the immediate and local highway network.

To reduce the traffic impact of larger developments, on safety, capacity, and amenity for all highway users and to provide a sustainable approach to parking, applicants would be expected to produce Transport Assessments (TA), or Transport Statement (TS) as in this case, to review the transport impacts, and reduce any adverse consequences.

Where appropriate, as in this case - see Policy T9b of Ensuring a Choice of Travel (extract below) a Travel Plan (TP) is also required - to demonstrate how they can resolve capacity issues and/or influence staff/customers to travel to the site other than by car.

Policy T9 - The following forms of development will require the s implementation of a Travel Plan: (edited)

- a) Major traffic generating development⁽⁶⁾
- b) Smaller development proposals which, either by themselves or in co other proposals, would generate significant amounts of vehicular traffic Quality Management Areas; or exacerbate an existing traffic problem in

The TS fails to acknowledge the potential adverse consequences and detrimental impacts of the proposal on the local network and subsequently satisfactory and/or robust mitigation has not been forthcoming.

The lack of a TP underlines the limitations of the application and a lack of collaboration with KMBC to find supportable solutions.

No pre-application process was undertaken.

A Technical Note (TN) was presented by TPA, on behalf of the applicant, May 2020, following response to the initial KMBC Highway comments, April 2020.

This attempted, in the main, to refute issues raised by KMBC Highways rather than co-operate and address and/or overcome KMBCs concerns and queries.

Highways therefore maintains that the queries regarding the TS remain unsatisfactorily addressed by the TN and disputes some of the statements and premises presented in both the TS and subsequent TN.

The TN also failed to address the concerns of St Helens Metropolitan Borough Council (STHMBC), who share some of the adopted highway about the site with KMBC. Their objection also remains unchanged, opposed to the developments proposal as presented following the TN, amendments and additional information.

The principal safety issue, for KMBC, is displaced parking and the associated effects on the immediate and local network ie safety, capacity and amenity.

The development proposal has not demonstrated sufficient on-site parking to ensure that the traffic generated by the proposals can be contained within the development site.

Mitigation regarding displaced parking was not offered, indeed the TN refuted it would occur, see below.

This raises concern over the effect on the safety and capacity of adjoining highways for pedestrians, especially vulnerable users and road vehicles due to indiscriminate parking on road, on footpath, about junctions etc. Amenity for all highway users in the vicinity will also worsen.

Contrary to the statement in the TN, 2.10, that there is nowhere legally to park in the vicinity of the site the applicant fails to understand or acknowledge that double and single yellow lines do not prohibit stopping altogether, loading/unloading and boarding and alighting is still permissible. In short, there is a grace period whereby vehicles may be stationary about the site.

Shortly after the assertion above, it was stated in the TN that many visits to shops are of short duration, a few minutes.

KMBC contends that indiscriminate parking, attracted by the shop, will occur regularly about the site on the adjacent highways (some legally, some otherwise) to the detriment of the safety, capacity and amenity of the immediate and local network ie people will stop on the carriageways/kerbside, rather than enter the car park to visit the shop.

The immediate and local highways are currently and historically subject to parking issues; much is considered to be related to vehicles associated with the nearby hospital parking on site.

This has been acknowledged in the TS, 6.14 - 6.17, but not satisfactorily addressed nor mitigated against and the development will only exacerbate issues detrimentally attracting more traffic to the site and adjacent streets. This has been noted in several of the objections received by local residents.

Whilst the Supplementary Planning Document (SPD) "Ensuring Choice of Travel" gives maximum parking standards the reduction from 25 (the maximum) to 13 proposed for the shop unit is deemed insufficient.

In short, the proposal offers a slightly less parking than currently is available, 28 spaces, for the existing unit than will be available when two proposed units occupy the same but more constricted site.

Similarly, the provision for disabled, cycle and motorcycle parking which are minimum standards, as per the SPD, with only one space for each unit proposed as opposed to three for each. This is insufficient and unacceptable.

It was agreed in the TN, 2.32 below, that the justification for the reduced parking provision, the TRICS calculation and additional comparative analysis and parking accumulation, was unsatisfactory in original submission (TS):

2.32 It is agreed that the number of convenience sites chosen for use in the TS was limited.

The new TRICS analysis and additional information is similar considered unsatisfactory.

Regardless, the use of TRICS and the information it garners does not justify reduction in parking standards.

Different end users within the same and/or alternative permitted use class(es) could occupy the site in the future with differing specific parking demands, trips attraction, parking accumulation etc such that using a very specific user (Tesco was one that was cited) is unacceptable in so much as it is unsustainable.

However, a parking accumulation of the actual current pub (only able to be undertaken when it is deemed operations are back the "normal" given the ongoing Covid implications to traffic and use etc November 2020 at the earliest) should be undertaken to understand current needs and/or use.

As aforementioned disabled parking, bike and motorcycle standards are minimums and the numbers offered are unacceptably low contrary to the TN, 3.5, opinion stating that they are suitable in number. This is unsubstantiated and unacceptable.

Also, the motorbike spaces are not safely accessible with a delivery vehicle is present and there is no long-term, covered, cycle provision for staff members.

Covered cycle stands or a dedicated internal space is a standard request to promote sustainable and active travel alternatives for staff/long term use.

This is even more pertinent when it is stated (see below) that all staff will walk or cycle but only two spaces for the two premises are offered, in an unsuitable location the principal shared thoroughfare to both units and connecting pedestrian footpath to the rear car park area ie a bottleneck.

The pedestrian walkway will be constricted where the cycle storage is located congesting this narrow passageway utilised by both premises as the primary sustainable access route and access form the rear car park.

In short, the proposal does not offer acceptable accessibility for pedestrians, cyclists or motorcyclists, nor vehicles as aforementioned.

There is no provision for oversize vehicles; vans OGVs etc and their use could occupy more than a single space (reducing provision further) and manoeuvring for such vehicles has not been taken into consideration in this constricted site.

Reduction to a dozen spaces is deemed insufficient, though it is agreed that given the ongoing Covid 19 situation parking analysis, or any highway analysis, is not currently appropriate. It is hoped this may change before the end of the year, once furlough is ended and schools are fully functioning and/or DfT guidance is forthcoming to state that analysis is valid.

6.16 of the TS states that the 12 spaces retained “*should* be able to support the operational needs of the pub” – this is unsubstantiated and is unacceptable especially given the pub producing 40 2/way trips an hour, TS 5.6 to 5.8 and Appendix D.

Employment numbers of 20-25 staff (for the shop alone) have been stated. Details of shift patterns and numbers present at any one time (impacting on parking requirements) have not been detailed.

The TN, 2.19, suggests it would be expected that all staff would walk or cycle – see lack of cycle parking provision above.

This assumption cannot be guaranteed, nor enforced, nor is this substantiated.

It is all the more questionable as promotion of cycling as an alternative is stymied due to lack of safe and adequate cycle storage, contrary to NPPF guidance.

Indeed, this expectation for all staff to walk or cycle is such a significant variance from the modal split for commute trips as to be resoundingly refuted.

KMBC would argue that with the late opening of both premises on the site that on any given inclement night either walking or cycling would be far from the preferred option of staff, or other site users.

In summary, the applicant has not demonstrated a sufficiency of parking for either unit for any vehicle type individually let alone as two units on the same site.

Further the possible ways to overcome any perceived insufficiency/control of parking are inadequate and/or lacking in detail. Accessibility is also considered inadequate and or unsubstantiated.

The signal-controlled junction of the A57 Warrington Road and Holt Lane presents a further major concern, as stated by STHMBC (within whose adopted highway it lies within) who state that it is currently congested in each peak hour.

The increase in turning traffic and manoeuvres from the proposed amended entrance to the site are also deemed as safety and capacity issues; detrimental to the immediate highway the proximity to the aforementioned signal controlled junction and nearby hospital entrance, with the need to keep the route clear for emergency vehicles (blue route).

STHMBC, who have authority over the signalised junction, has concern that diverted trips may have a detrimental impact on the operation of the signals.

Trips already on the A57 which then divert into the site will increase the demand at the signals on Holt Lane. Also, as shoppers exit the site and continue their journey on the A57 this demand will again be increased.

Holt Lane already has long queues in the peak hours; this would be further exacerbated by the development.

At present there is only a short right turn bay (shown in the extract from Google maps below) which allows vehicles turning into Holt Lane to wait without blocking north-westbound ahead traffic.

Any additional demand for this movement, for example by drivers diverting into the convenience store car park, would result in delays to the main flows on the A57 if the queue extends beyond the length of this bay.



It should be further noted that these signals are linked with signals to the north-west which form the access to Whiston Hospital, with and Accident and Emergency access/facilities.

Therefore, any changes to the timings or operation at Holt Lane also impact on this other junction.

The junctions are currently linked under MOVA control and the corridor is a blue light route for emergency vehicles heading to, and from, the hospital.

The Hospital and/or emergency services should be consulted.

The convenience store may also increase the demand at the signals by pedestrians which would further reduce the green time available for vehicles and potentially result in congestion on the A57.

It is therefore required that detailed analysis to consider the impact of the proposals on the signals at A57/Holt Lane and A57/ hospital access are undertaken by the applicant.

To understand the changes to the signals a LINSIG assessment should be provided; details of the existing traffic signal specification can be obtained from the STHMBC.

Prior to detail and analysis of the signalised junction statements such as TN 2.22 re green light provision for ambulances are unsubstantiated speculation.

The junction is further complicated by the signals that are for the residential dwelling opposite the pub (see below).



The lights are required for unobstructed access to this property opposite the pub. The stop line is therefore pushed back further than a typical arrangement to give the required space to access and/or egress free of queuing vehicles, thus further complicating the layout and function of this junction. No mention, nor mitigation has been made regarding this.

The proposal shows amendment of the car park access – moving closer to the signalised junction.

This is deemed unacceptable as exiting traffic from the car park will likely cause obstruction and/or queuing of Holt Lane, with a knock-on effect on the operation of all arms of the junction given the closer proximity to the stop line, which as aforementioned is atypical.

A detection loop for vehicles queuing to exit the parking area for example has not been offered, nor Keep Clear and/or Yellow Box markings to mitigate the detrimental impact of the access repositioning.

Indeed, Yellow Box markings for the signalised junction may be merited.

However, no highway signage or lining details were presented, nor mitigation to any highway impacts of the proposal as highlighted by both authorities.

Further, the visibility splays for the new access have not been shown and 43m of visibility is required to be demonstrated to be achieved, in accordance with the 30mph speed limit, or a speed survey undertaken, see note above about timing of such analysis.

The proposed access being located closer to the signal junction and outside the applicant's control are both detrimental impacts in terms of safety and the applicant must demonstrate that their development does not have any adverse safety impact, this has not been done satisfactorily.

The amended site access is unacceptable as proposed; junction radii are required rather than dropped kerbs, acceptable only for residential dwellings or similar with limited vehicle movements.

This access, with many vehicle movements, should have junction radii to highlight to pedestrians along the adopted footway that there is a formal access there generating significant traffic.

There are no details of the CPMP, 6.22, or how enforcement will ensure that parking restrictions (again no specifics) will be undertaken to ensure availability of parking spaces or

limiting them to the suggested times, a few minutes, that customers utilise them when visiting such shops.

With regards to servicing how can it be ensured that the size of delivery vehicles will be restricted, 6.21?

The TN, 2.49, states that defining the maximum size of delivery vehicles could be part of a Servicing Management Plan; this cannot be guaranteed, nor enforced.

Further, there sufficiency of space about the vehicle to unload the 2 deliveries a day (stated) presumably with a tail lift and cages to be manoeuvred on and off the wagon and then about the public thoroughfare and main entrance. See above re the bottleneck of the shop and pub accesses.

Details of a Servicing Management Plan (SMP), TS 6.16, presumably to ensure the shop and pub deliveries do not coincide are not forthcoming.

Waste services/collection have similarly not been detailed and are required.

How will it be ensured all deliveries/servicing will happen before midday, the public house opening time, TS 4.7?

Similarly, a 10.35m rigid vehicle has been stated as the waste service for the site, 4.6 – this is unsubstantiated, nor able to be guaranteed, as aforementioned, and regardless currently, with the parking area only having the demands of the pub the dray vehicle appears to choose to park kerbside rather than within the site.

The photos below, presented by residents, demonstrate an HGV delivery wagon parking kerbside, regardless of restrictions, whilst operation as existing ie a single pub unit on the site, with plentiful space in the car park to the rear as can be seen as can the access to the car park being obstructed by the HGV.

The pub it appears do not currently promote safe delivery practices and highway amenity in allowing this, regardless of the opinion in the TN that major retail outlets may be more inclined to follow such guidance as maximum delivery vehicle size and good practice.



Note the safe passage of the pedestrian with the pushchair being impeded (below) and the car queuing behind the lorry (above) over the carriageway centreline.



The reluctance to utilise the large rear, and in this instance vacant, parking area is not understood and gives rise to future delivery practices regardless of SMP or CPMP.

A proposed dual functioning site, with increase in deliveries, and comings and goings of customers can be expected to intensify such occurrences and the unacceptable highway safety and capacity consequences.

The swept path analysis regarding manoeuvring space within the parking area is unsatisfactory.

Tracking at the site access to demonstrate two-way traffic can pass without queuing back onto the highway is required.

A delivery vehicle passing a car i.e. one turning left into the site as the other turns left out of the site as should be demonstrated as this is a likely manoeuvre, other worst-case scenarios should also be presented.

A Minimum Accessibility Standard Assessment, as per the aforementioned SPD, was not offered although required given the floor area of the unit.

A Framework Travel Plan, in lieu of a Full Travel Plan on occupation, was not forthcoming.

It was stated in the TN that such supporting information should be conditioned however it is considered this is not in accordance with current planning policy and should be submitted to form part of approved documents submitted in advance of determination.

Overall the applicant has failed to take on board guidance from KMBC or work together and promote a site with a sustainable transport solution as per NPPF (Section 9) and address the potential impacts of the development and offer robust opportunities for avoiding and/or mitigation adverse effects by disregarding the current and future patterns of movement, parking and other transport considerations.

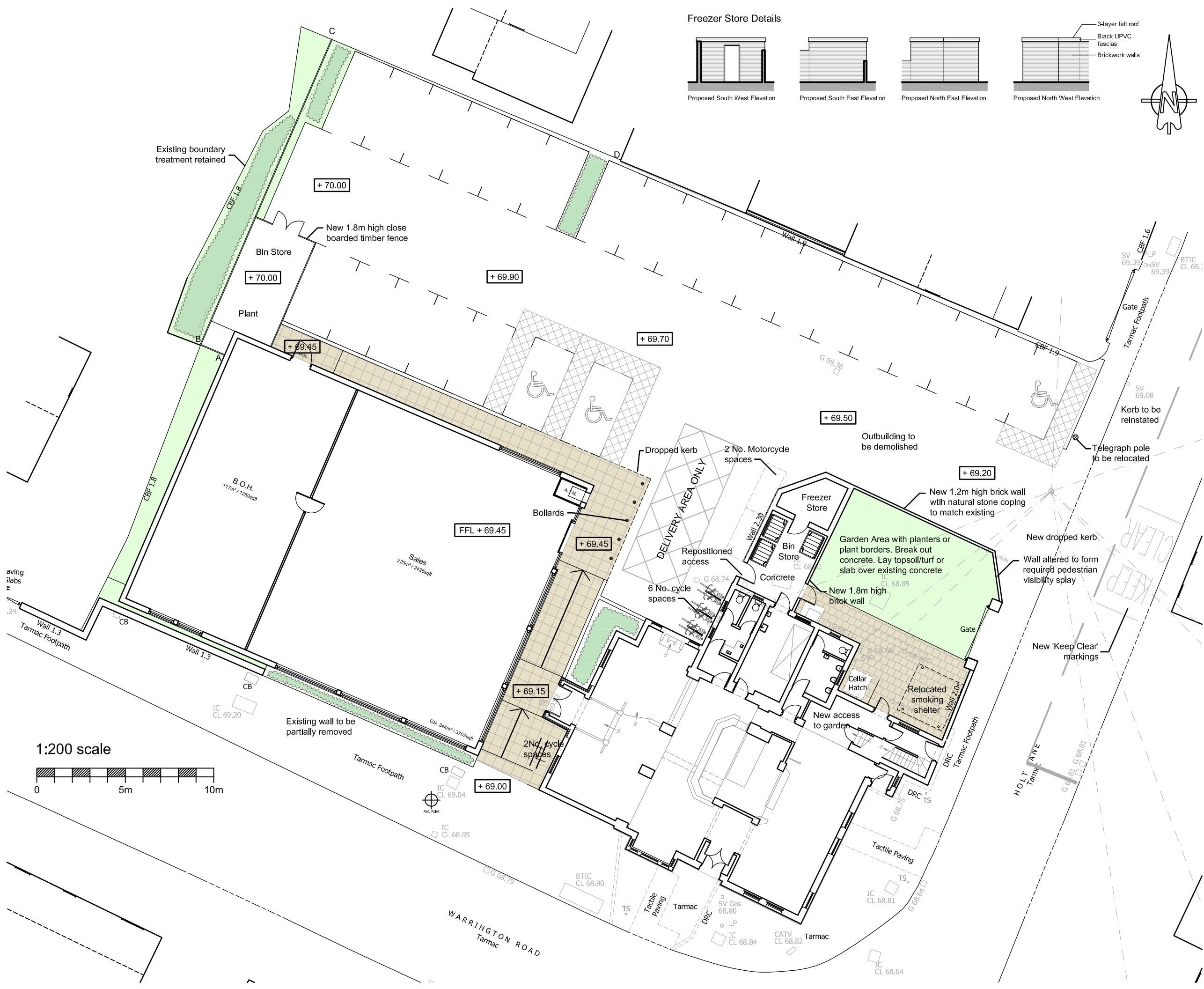
The regional Merseyside Local Transport Plan is supported by the SPD in seeking to manage demand to provide an efficient transport network, ensure the safety of all users and provide the appropriate transport infrastructure to support social and economic growth and regeneration.

The applicant fails to meet the above objectives and KMBC cannot support the proposal as it stands due to, in summary:

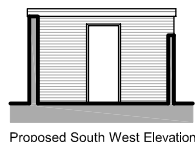
- the insufficient provision of parking, and associated issues of displaced parking on highway safety capacity and amenity of the immediate and local network, with no substantiated mitigation offered,
- the effect on the function of the signalised junction(s) by the traffic (vehicular and NMUs) associated with the proposal, with no robust analysis nor mitigation offered, and
- the unacceptable servicing, manoeuvring and accessibility of the site, with lack of detail or mitigation offered.

Therefore, the cumulative effects give rise to a severe safety concern and a proposal unsupportable by KMBC Highways.

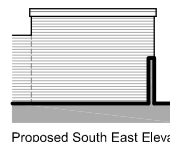
APPENDIX B



Freezer Store Details



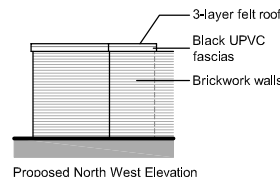
Proposed South West Elevation



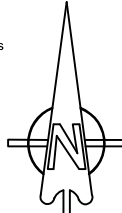
Proposed South East Elevation



Proposed North East Elevation



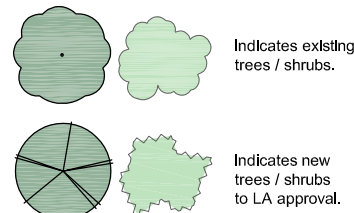
Proposed North West Elevation



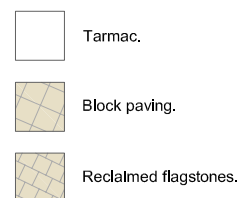
NOTES

GENERAL NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE OTHER RELEVANT CONSULTANTS DRAWINGS.
2. ALL FINISHES ARE TO CONFORM TO THE CURRENT BUILDING REGULATIONS.
3. REFER TO A SEPARATE DOCUMENT FOR THE DESIGNERS RISK ASSESSMENT.
4. ALL WORKS OR MATERIALS INDICATED ON THIS DRAWING ARE TO BE TO THE LATEST RELEVANT BRITISH STANDARDS AND CARRIED OUT IN ACCORDANCE WITH THE BRITISH STANDARDS CODES OF PRACTICE OR RECOGNIZED INSTITUTE OR TRADE ASSOCIATION RECOMMENDATIONS AND PUBLICATIONS.

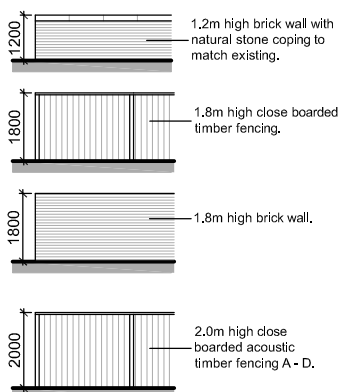
Soft Landscaping



Hard Landscaping



Boundary treatment details



P16	Nov 2021	PLANNING	JCB	
P15	Nov 2021	Delivery bay repositioned. Size of external door to BOH area amended.	TH	
Revision	Date	Description	Drawn	Chkd

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Client: Cordage Estates Limited

Project: The Holt Rainhill

Drawing Title: Proposed Site Layout

Drawn By	Date	Checked By	Date	Approved By	Date
JCB	Oct '19				

Drawing No.	Revision	Scale
19.3177.100	P16	1:200 @ A3

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SCALING ONLY FOR LOCAL AUTHORITY PURPOSES

APPENDIX C

Rainhill - Radar Speed Survey

Speed Limit



Weather
Dry/Bright

Weds 7th July 2021
0930-1210



All speeds are recorded from free flowing vehicles

Northbound				Southbound			
Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)	
1	12	51	19	1	11	51	19
2	14	52	19	2	13	52	19
3	14	53	19	3	13	53	19
4	14	54	19	4	14	54	20
5	15	55	19	5	14	55	20
6	15	56	19	6	15	56	20
7	15	57	19	7	15	57	20
8	15	58	19	8	15	58	20
9	15	59	19	9	15	59	20
10	15	60	20	10	16	60	20
11	15	61	20	11	17	61	20
12	15	62	20	12	17	62	20
13	15	63	20	13	17	63	20
14	15	64	20	14	17	64	20
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21	16	71	20	21	18	71	21
22	16	72	21	22	18	72	21
23	16	73	21	23	18	73	21
24	16	74	21	24	18	74	21
25	16	75	21	25	18	75	21
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27	16	77	21	27	18	77	22
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42	18	92	22	42	19	92	23
43	18	93	22	43	19	93	23
44	18	94	22	44	19	94	23
45	18	95	22	45	19	95	24
46	18	96	23	46	19	96	24
47	18	97	23	47	19	97	24
48	18	98	24	48	19	98	25
49	18	99	26	49	19	99	27
50	19	100	26	50	19	100	30

ROAD SURFACE - DRY

Average Northbound (mph)	18.7	Average Southbound (mph)	19.6
Standard Deviation (mph)	2.8	Standard Deviation (mph)	2.9
85th/ile Northbound (mph)	21.5	85th/ile Southbound (mph)	22.5
% > Speed Limit Northbound	0%	% > Speed Limit Southbound	0%



Rainhill - Radar Speed Survey

Speed Limit



Weather

Weds 7th July 2021

All speeds are recorded from free flowing vehicles

Dry/Bright

1240-1500



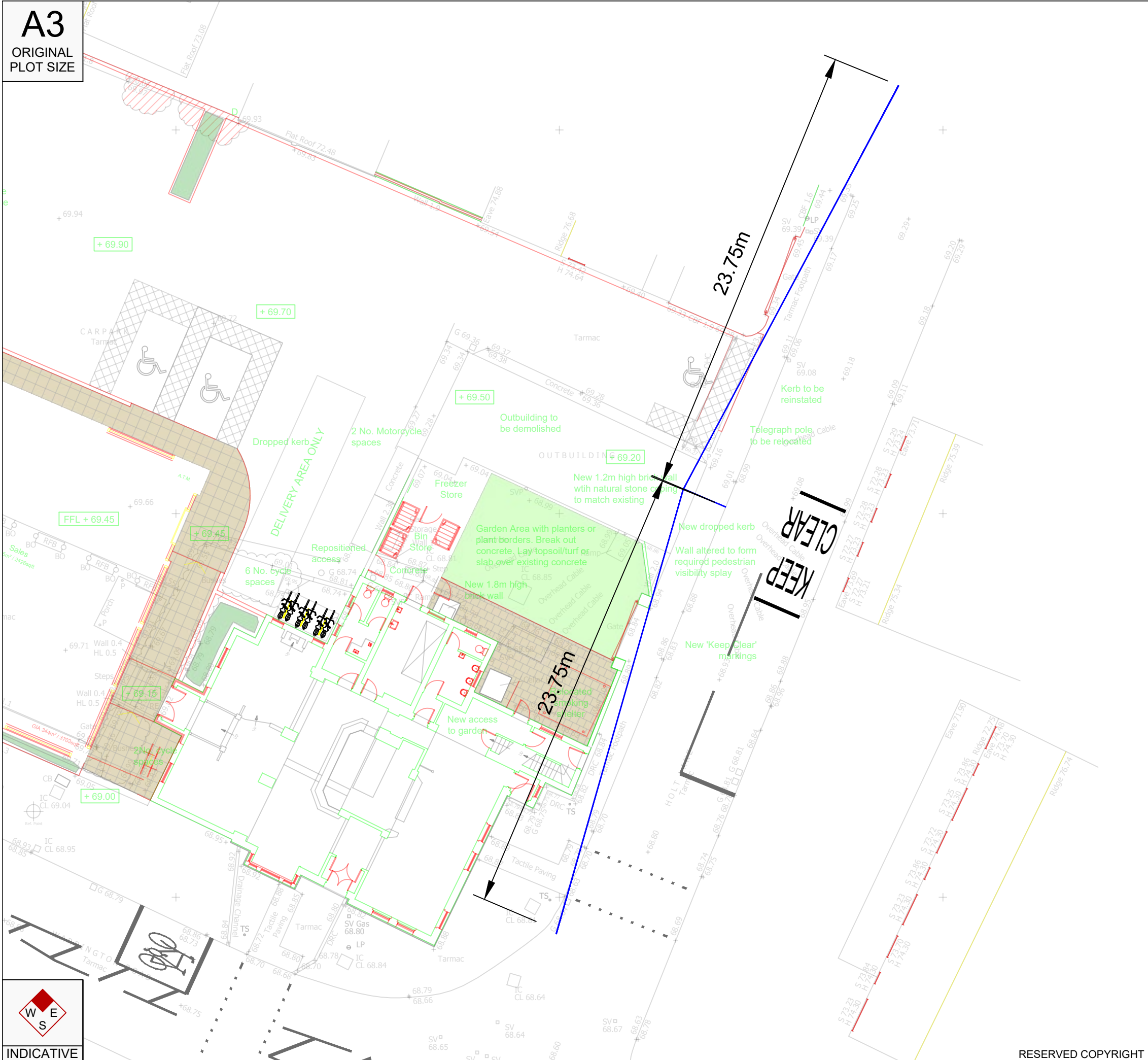
Northbound				Southbound			
Speeds (mph)		Speeds (mph)		Speeds (mph)		Speeds (mph)	
1	13	51	19	1	12	51	21
2	15	52	19	2	13	52	21
3	15	53	19	3	15	53	21
4	15	54	19	4	15	54	21
5	15	55	20	5	15	55	21
6	16	56	20	6	16	56	21
7	16	57	20	7	17	57	21
8	16	58	20	8	17	58	21
9	16	59	20	9	17	59	21
10	16	60	20	10	18	60	21
11	16	61	20	11	18	61	21
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14	16	64	20	14	19	64	21
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21	17	71	21	21	19	71	22
22	17	72	21	22	19	72	22
23	17	73	21	23	19	73	22
24	17	74	21	24	19	74	22
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27	17	77	21	27	19	77	22
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29	17	79	22	29	20	79	22
30	18	80	22	30	20	80	22
31	18	81	22	31	20	81	22
32	18	82	22	32	20	82	22
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34	18	84	22	34	20	84	23
35	18	85	22	35	20	85	23
36	18	86	22	36	20	86	23
37	18	87	22	37	20	87	23
38	18	88	22	38	20	88	23
39	18	89	22	39	20	89	23
40	18	90	23	40	20	90	23
41	18	91	23	41	20	91	23
42	18	92	23	42	20	92	23
43	18	93	23	43	20	93	24
44	18	94	24	44	20	94	24
45	18	95	25	45	20	95	24
46	18	96	25	46	21	96	26
47	18	97	25	47	21	97	26
48	19	98	26	48	21	98	27
49	19	99	28	49	21	99	27
50	19	100	28	50	21	100	29

ROAD SURFACE - DRY

Average Northbound (mph)	19.3	Average Southbound (mph)	20.6
Standard Deviation (mph)	2.9	Standard Deviation (mph)	2.6
85th%ile Northbound (mph)	22.2	85th%ile Southbound (mph)	23.2
% > Speed Limit Northbound	0%	% > Speed Limit Southbound	0%



APPENDIX D



A3
ORIGINAL
PLOT SIZE

INDICATIVE

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NOTES:
Based on proposed layout received on 18 August 2021

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City

90 High Holborn
London
WC1V 6LJ
020 7119 1155
www.tpa.uk.com

CLIENT:
PUNCH PARTNERSHIPS (PML) LTD

PROJECT:
**THE HOLT,
RAINHILL**

TITLE:
**PROPOSED SITE ACCESS
VISIBILITY SPLAY**

STATUS:
FOR INFORMATION

SCALE: 1:200	DATE: 18/08/21	DRAWN: SMK	CHECKED: RJM	APPROVED: RJM
JOB NO: 1911-011	DRAWING NO: PL02	REVISION:		

APPENDIX E

The Holt, Rainhill, Prescot

**Proposed Redevelopment and
Highway Access Arrangements**

Stage 1 Road Safety Audit

July 2021

**Alpha Consultants
18-20 Groveland Way
Stotfold
Bedfordshire
SG5 4PH**

**info@alpha-consultants.co.uk
www.alpha-consultants.co.uk**



Table of Contents

1. Introduction
2. Items raised at this Road Safety Audit
3. Audit Team Statement

Appendices

- A. Problem Location Plan

Project / Document Details	
Date:	12/07/2021
Document reference and revision:	AC/TPA/1207211
Prepared by:	Alpha Highway Consultants Limited
Client	Punch Partnerships (PML) Limited
Design Organisation:	Transport Planning Associates Limited
Overseeing Organisation:	St Helens Council

1. Introduction

- 1.1 This report results from a Stage 1 Road Safety Audit carried out during July 2021 at the request of the design organisation, Transport Planning Associates, 90 High Holborn, London WC1V 6LJ.
- 1.2 The Audit relates to proposed highway access arrangements associated with redevelopment of The Holt public house site adjacent to Holt Lane and Warrington Road, Rainhill, Prescot. It is understood that the public house is to remain, with a new convenience store proposed in the grounds, along with a relocated vehicular access.
- 1.3 The Audit Team membership was as follows:
- | | |
|------------------------------|-------------------|
| J Bown (Audit Team Leader) | Alpha Consultants |
| B Newiss (Audit Team Member) | Alpha Consultants |
- 1.4 The Audit took place at the offices of Alpha Consultants during July 2021 and included an examination of the following documents:
- Drawing No. 1911-011 PL01
 - Drawing No. 1911-011 SP07
- 1.5 The Audit Team visited the site on the morning of 6 July 2021. Weather conditions were overcast with intermittent rain. The surfaces were damp.
- 1.6 The terms of reference of the Audit are as described in GG 119 (formerly HD 19/15).
- 1.7 The Audit Team has acted independently of the Design Team and has had no prior involvement in the design of the scheme.
- 1.8 The Audit Team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the designs to any other criteria.

2. Items raised at this Road Safety Audit

JUNCTIONS

2.1 Problem

Location: Vehicular access

Summary: Potential conflict between opposing vehicles



Description:

It is noted from the swept path information provided that a delivery vehicle may occupy much of the access width, particularly when turning left into the site. Whilst deliveries are likely to be occasional, customer vehicles are likely to be entering and leaving the site on a more frequent basis. If two opposing cars cannot safely negotiate the access at the same time, this could lead to sudden/unexpected braking on Holt Lane and a risk of rear shunt collisions.

Recommendation:

It is recommended that a further swept path analysis is undertaken in order to ensure and demonstrate that two opposing cars can safely negotiate the access.

It is also recommended that delivery times are appropriately scheduled, in order to avoid times when customer usage of the car park is likely to be high.

WALKING, CYCLING AND HORSE RIDING

2.2 Problem

Location: Holt Lane

Summary: Potential conflict between emerging vehicles and footway users



Description:

It is noted that the vehicular access to the site is to be relocated. Depending on the nature and extent of any adjacent boundary features, there may be a risk of conflict between emerging vehicles and footway users if inter-visibility is restricted.

Recommendation:

It is recommended that appropriate pedestrian visibility splays are provided each side of the access and kept clear of obstruction.

3. Audit Team Statement

We certify that this Audit has been carried out in accordance with the principles of GG 119.

AUDIT TEAM LEADER:

J Bown MBA PGDipMS IEng FIHE MICE MSoRSA
Alpha Consultants
18-20 Groveland Way
Stotfold
Bedfordshire
SG5 4PH

Signed:



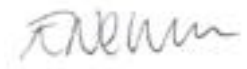
Date:

11 July 2021

AUDIT TEAM MEMBER

B Newiss MCIHT MSoRSA
Alpha Consultants
18-20 Groveland Way
Stotfold
Bedfordshire
SG5 4PH

Signed:



Date:

12 July 2021

Appendix A

Problem Location Plan

A3
ORIGINAL
PLOT SIZE



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NOTES:

No.	Date	Drawn	Checked	Approved	By

Bristol
Cambridge
London
Manchester
Oxford
Weylyn Garden City



50 High Holborn
London
WC1V 6LJ
020 7119 1155
www.tpa.uk.com

CLIENT:

PROJECT:
**The Holt
Rainhill**

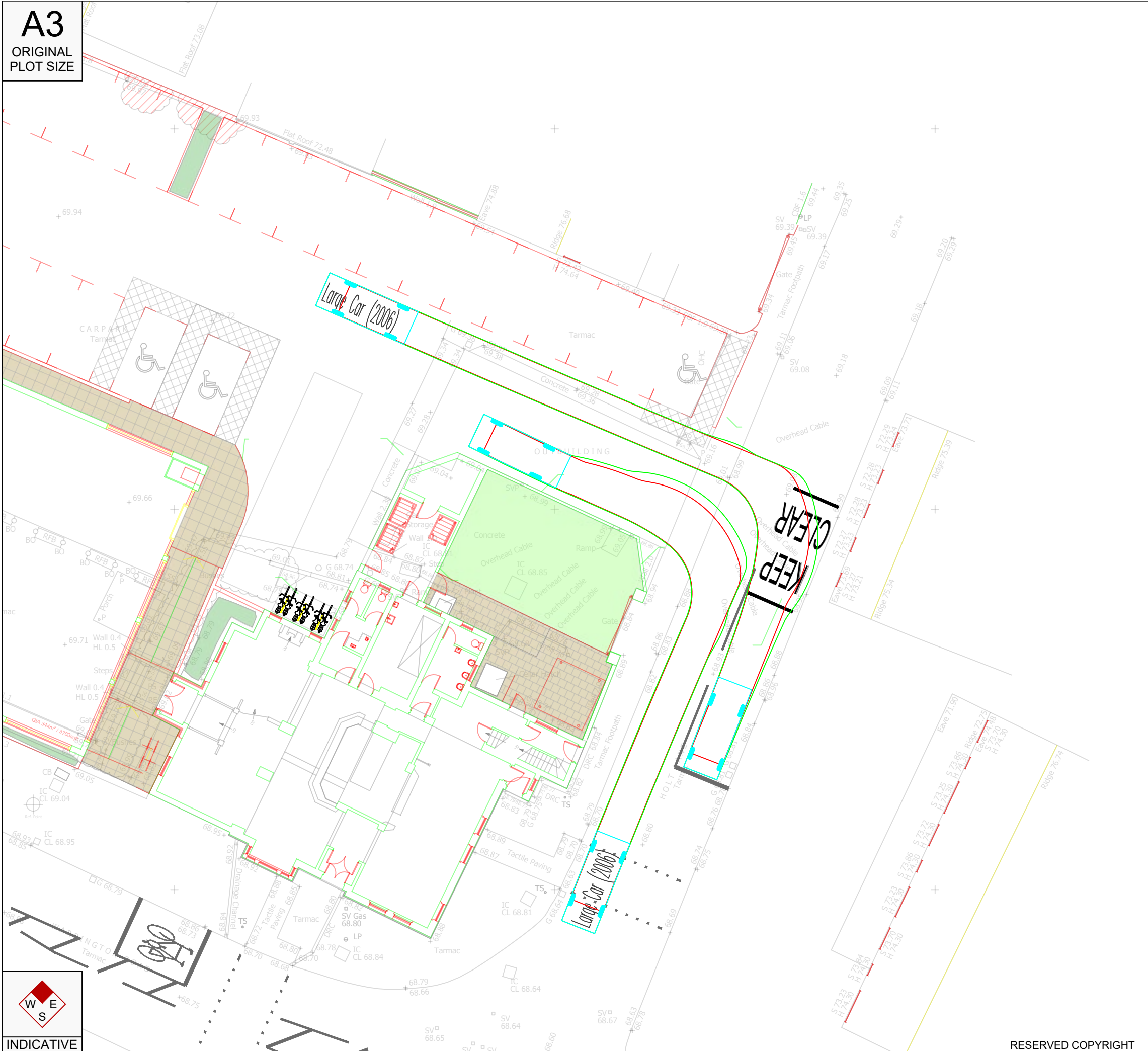
TITLE:
**Proposed access
arrangements**

STATUS:
FOR INFORMATION

SCALE: 1:250	DATE: 05-07-21	DRAWN: NH	CHECKED: -	APPROVED: NH
JOB NO: 1911-011	DRAWING NO: PL01	REVISION: -		

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APPENDIX F



A3
ORIGINAL
PLOT SIZE

INDICATIVE

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NOTES:

Based on proposed layout received on 18 August 2021

Large Car (2006)

Overall Length5.079m

Overall Width1.872m

Overall Body Height1.525m

Min Body Ground Clearance0.310m

Max Track Width1.831m

Lock to lock time4.00s

Kerb to Kerb Turning Radius5.900m

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

Bristol

Cambridge

London

Manchester

Oxford

Welwyn Garden City



Transport Planning Associates

90 High Holborn

London

WC1V 6LJ

020 7119 1155

www.tpa.uk.com

CLIENT:
PUNCH PARTNERSHIPS (PML) LTD

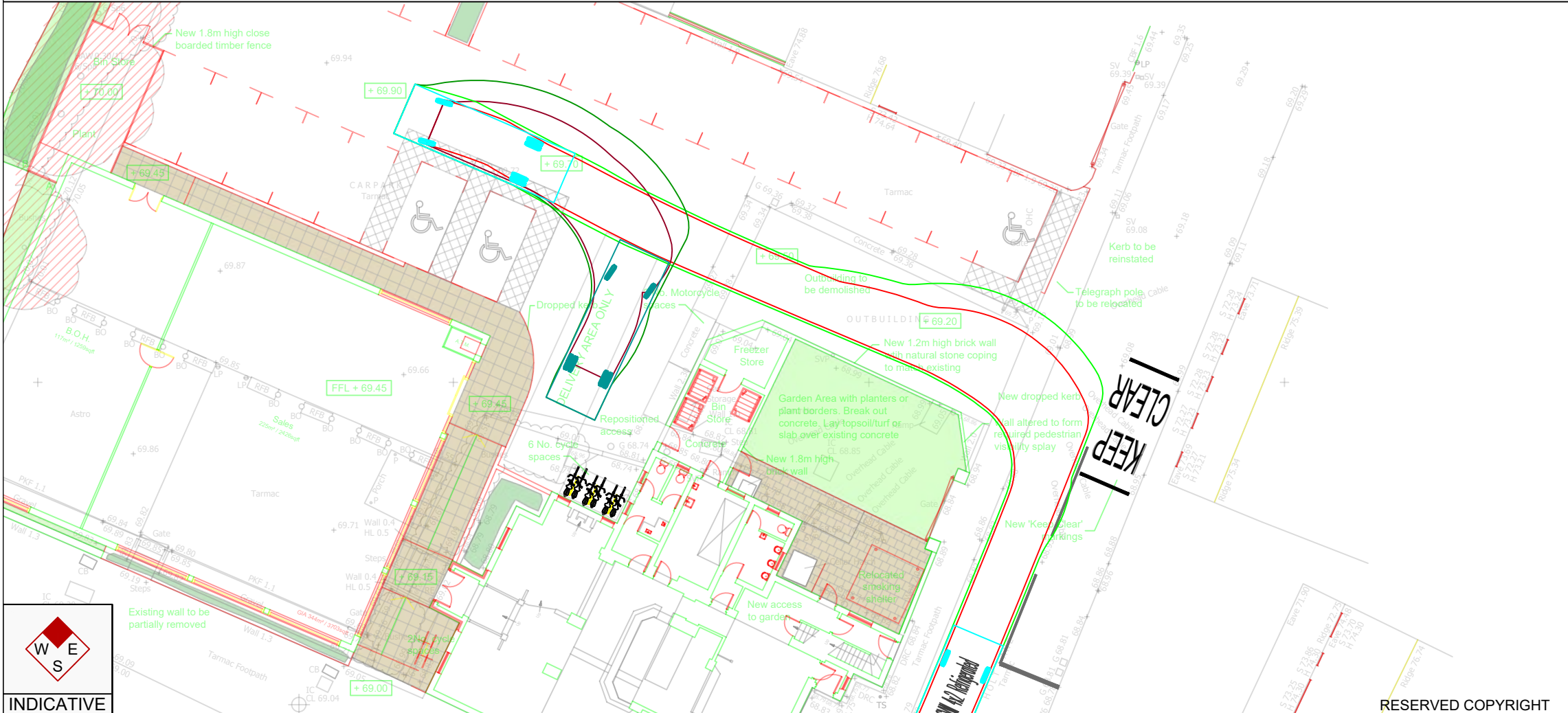
PROJECT:
THE HOLT,
RAINHILL

TITLE:
SWEPT PATH ANALYSIS OF
A LARGE CAR

STATUS:
FOR INFORMATION

SCALE: 1:200	DATE: 21/09/21	DRAWN: SMK	CHECKED: RJM	APPROVED: RJM
JOB NO: 1911-011	DRAWING NO: SP08	REVISION:		

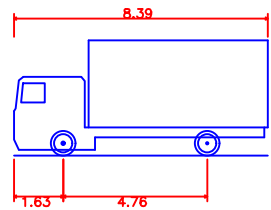
APPENDIX G



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NOTES:

Based on proposed layout received on 18 August 2021



Mercedes Atego 1622L 16T GVW 4x2 Refrigerated
Overall Length 8.390m
Overall Width 2.587m
Overall Body Height 3.811m
Min Body Ground Clearance 0.188m
Track Width 2.321m
Lock to lock time 5.00s
Max Steering Angle (Virtual) 45.00°

Rev	Date	Details	Drawn by	Checked by	Approved by
-	-	-	-	-	-

Bristol
Cambridge
London
Manchester
Oxford
Welwyn Garden City



90 High Holborn
London
WC1V 6LJ
020 7119 1155
www.tpa.uk.com

CLIENT:
PUNCH PARTNERSHIPS (PML) LTD

PROJECT:
**THE HOLT,
RAINHILL**

TITLE:
**SWEPT PATH ANALYSIS OF
AN 8.4M RIGID DELIVERY
VEHICLE**

STATUS:
FOR INFORMATION

SCALE: 1:250	DATE: 21/09/21	DRAWN: SMK	CHECKED: RJM	APPROVED: RJM
JOB NO: 1911-011	DRAWING NO: SP09	REVISION:		

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APPENDIX H

VEHICLE OCCUPANCY SURVEY

Shell Service Station Leicester | Thursday 22/7/2021 | 0700-1900

	Car Park ->	Standard		Disabled		Air & Water		Pumps				Total		Stress
Day	Time	Occupied	Available	Occupied	Available	Occupied	Available	Occupied	Pumps	Not in Space	Queue			%
Thursday 22/7/2021	07 00 am	4	13	0	1	0	1	6	8	1	3	14	23	60.87%
	07 15 am	2	13	0	1	1	1	2	8	0	0	5	23	21.74%
	07 30 am	0	13	0	1	0	1	4	8	0	0	4	23	17.39%
	07 45 am	1	13	0	1	0	1	5	8	0	0	6	23	26.09%
	8 00 am	2	13	0	1	0	1	4	8	0	0	6	23	26.09%
	8 15 am	5	13	0	1	0	1	6	8	0	0	11	23	47.83%
	8 30 am	3	13	0	1	0	1	5	8	0	1	9	23	39.13%
	8 45 am	2	13	0	1	0	1	6	8	1	0	9	23	39.13%
	9 00 am	0	13	0	1	0	1	4	8	0	0	4	23	17.39%
	9 15 am	1	13	0	1	1	1	6	8	1	0	9	23	39.13%
	9 30 am	1	13	0	1	0	1	2	8	0	0	3	23	13.04%
	9 45 am	3	13	0	1	0	1	8	8	0	1	12	23	52.17%
	10 00 am	1	13	0	1	0	1	7	8	1	1	10	23	43.48%
	10 15 am	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	10 30 am	2	13	0	1	1	1	6	8	0	0	9	23	39.13%
	10 45 am	1	13	0	1	0	1	3	8	0	0	4	23	17.39%
	11 00 am	4	13	0	1	0	1	5	8	0	0	9	23	39.13%
	11 15 am	4	13	0	1	1	1	5	8	0	0	10	23	43.48%
	11 30 am	1	13	0	1	0	1	5	8	0	0	6	23	26.09%
	11 45 am	1	13	0	1	0	1	1	8	0	0	2	23	8.70%
	12 00 pm	1	13	0	1	0	1	6	8	0	0	7	23	30.43%
	12 15 pm	3	13	0	1	0	1	5	8	0	5	13	23	56.52%
	12 30 pm	1	13	0	1	1	1	6	8	0	4	12	23	52.17%
	12 45 pm	1	13	0	1	1	1	2	8	1	0	5	23	21.74%
	13 00 pm	4	13	0	1	0	1	4	8	0	3	11	23	47.83%
	13 15 pm	6	13	0	1	1	1	4	8	2	3	16	23	69.57%
	13 30 pm	2	13	0	1	0	1	3	8	0	0	5	23	21.74%
	13 45 pm	3	13	0	1	0	1	6	8	0	1	10	23	43.48%
	14 00 pm	2	13	0	1	1	1	3	8	0	0	6	23	26.09%
	14 15 pm	1	13	0	1	0	1	3	8	0	0	4	23	17.39%
	14 30 pm	2	13	0	1	0	1	3	8	0	0	5	23	21.74%
	14 45 pm	2	13	0	1	0	1	7	8	0	0	9	23	39.13%
	15 00 pm	3	13	0	1	0	1	7	8	0	1	11	23	47.83%
	15 15 pm	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	15 30 pm	2	13	0	1	0	1	7	8	0	1	10	23	43.48%
	15 45 pm	2	13	0	1	0	1	4	8	0	0	6	23	26.09%
	16 00 pm	2	13	0	1	1	1	3	8	0	0	6	23	26.09%
	16 15 pm	4	13	0	1	1	1	5	8	1	1	12	23	52.17%
	16 30 pm	3	13	0	1	0	1	7	8	0	0	10	23	43.48%
	16 45 pm	4	13	0	1	1	1	7	8	2	1	15	23	65.22%
	17 00 pm	5	13	0	1	0	1	4	8	0	1	10	23	43.48%
	17 15 pm	6	13	0	1	0	1	6	8	0	1	13	23	56.52%
	17 30 pm	4	13	0	1	0	1	3	8	0	0	7	23	30.43%
	17 45 pm	4	13	0	1	0	1	4	8	0	0	8	23	34.78%
	18 00 pm	1	13	0	1	0	1	5	8	0	0	6	23	26.09%
	18 15 pm	4	13	0	1	0	1	6	8	0	0	10	23	43.48%
	18 30 pm	4	13	0	1	0	1	7	8	0	1	12	23	52.17%
	18 45 pm	5	13	0	1	1	1	2	8	0	0	8	23	34.78%
	19 00 pm	2	13	0	1	1	1	4	8	0	0	7	23	30.43%

VEHICLE OCCUPANCY SURVEY

Shell Service Station Leicester | Tuesday 20/7/2021 | 0700-1900

	Car Park ->	Standard		Disabled		Air & Water		Pumps				Total		Stress
Day	Time	Occupied	Available	Occupied	Available	Occupied	Available	Occupied	Pumps	Not in Space	Queue			%
Tuesday 20/7/2021	07 00 am	5	13	0	1	0	1	2	8	0	0	7	23	30.43%
	07 15 am	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	07 30 am	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	07 45 am	2	13	0	1	0	1	3	8	1	0	6	23	26.09%
	8 00 am	1	13	0	1	1	1	3	8	0	0	5	23	21.74%
	8 15 am	1	13	0	1	0	1	5	8	0	0	6	23	26.09%
	8 30 am	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	8 45 am	1	13	0	1	0	1	7	8	0	0	8	23	34.78%
	9 00 am	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	9 15 am	3	13	0	1	1	1	2	8	0	0	6	23	26.09%
	9 30 am	1	13	0	1	0	1	5	8	0	0	6	23	26.09%
	9 45 am	2	13	0	1	1	1	4	8	0	0	7	23	30.43%
	10 00 am	3	13	0	1	1	1	3	8	0	0	7	23	30.43%
	10 15 am	3	13	0	1	1	1	5	8	1	0	10	23	43.48%
	10 30 am	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	10 45 am	4	13	0	1	0	1	4	8	1	0	9	23	39.13%
	11 00 am	3	13	0	1	0	1	3	8	0	0	6	23	26.09%
	11 15 am	5	13	0	1	0	1	4	8	0	0	9	23	39.13%
	11 30 am	5	13	0	1	0	1	4	8	0	0	9	23	39.13%
	11 45 am	3	13	0	1	0	1	5	8	0	0	8	23	34.78%
	12 00 pm	3	13	0	1	1	1	5	8	0	0	9	23	39.13%
	12 15 pm	2	13	0	1	0	1	4	8	0	0	6	23	26.09%
	12 30 pm	3	13	0	1	0	1	6	8	0	0	9	23	39.13%
	12 45 pm	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	13 00 pm	4	13	0	1	0	1	4	8	0	0	8	23	34.78%
	13 15 pm	4	13	0	1	0	1	3	8	0	0	7	23	30.43%
	13 30 pm	3	13	0	1	0	1	4	8	0	0	7	23	30.43%
	13 45 pm	5	13	0	1	0	1	3	8	0	0	8	23	34.78%
	14 00 pm	3	13	0	1	0	1	1	8	0	0	4	23	17.39%
	14 15 pm	4	13	1	1	0	1	5	8	0	0	10	23	43.48%
	14 30 pm	4	13	0	1	0	1	4	8	2	0	10	23	43.48%
	14 45 pm	3	13	0	1	0	1	2	8	2	0	7	23	30.43%
	15 00 pm	2	13	0	1	0	1	5	8	1	0	8	23	34.78%
	15 15 pm	3	13	0	1	0	1	8	8	0	0	11	23	47.83%
	15 30 pm	3	13	0	1	0	1	4	8	0	0	7	23	30.43%
	15 45 pm	2	13	0	1	0	1	8	8	0	1	11	23	47.83%
	16 00 pm	2	13	0	1	0	1	1	8	0	0	3	23	13.04%
	16 15 pm	3	13	0	1	0	1	6	8	1	1	11	23	47.83%
	16 30 pm	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	16 45 pm	5	13	0	1	0	1	4	8	1	0	10	23	43.48%
	17 00 pm	2	13	0	1	0	1	2	8	0	0	4	23	17.39%
	17 15 pm	4	13	0	1	1	1	5	8	2	0	12	23	52.17%
	17 30 pm	2	13	0	1	1	1	6	8	0	0	9	23	39.13%
	17 45 pm	2	13	0	1	0	1	3	8	0	0	5	23	21.74%
	18 00 pm	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	18 15 pm	2	13	0	1	0	1	6	8	0	2	10	23	43.48%
	18 30 pm	3	13	0	1	0	1	2	8	0	0	5	23	21.74%
	18 45 pm	1	13	0	1	1	1	4	8	0	0	6	23	26.09%
	19 00 pm	1	13	0	1	0	1	4	8	0	0	5	23	21.74%

APPENDIX I

Calculation Reference: AUDIT-219602-210819-0806

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : O - CONVENIENCE STORE
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 292 to 539 (units: sqm)
 Range Selected by User: 70 to 1200 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

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

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

Selected survey days:

Monday	2 days
Friday	2 days

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

Selected survey types:

Manual count	4 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	3
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	4
------------------	---

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

Secondary Filtering selection:

Use Class:

E(a) 4 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
125,001 to 250,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	1 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	4 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	4 days
----	--------

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

PTAL Rating:

No PTAL Present	4 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	NY-01-O-03 FOREST ROAD NORTHALLERTON	CO-OPERATIVE		NORTH YORKSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Gross floor area:	305 sqm		
	Survey date: MONDAY	19/09/16		Survey Type: MANUAL
2	TW-01-O-02 ETHEL TERRACE SUNDERLAND CASTLETOWN	CO-OPERATIVE		TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Gross floor area:	330 sqm		
	Survey date: FRIDAY	07/04/17		Survey Type: MANUAL
3	WL-01-O-01 THE CIRCLE SWINDON	ONE STOP		WILTSHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone			
	Total Gross floor area:	292 sqm		
	Survey date: FRIDAY	23/09/16		Survey Type: MANUAL
4	WY-01-O-02 AINSTY ROAD WETHERBY	CO-OPERATIVE		WEST YORKSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Residential Zone			
	Total Gross floor area:	539 sqm		
	Survey date: MONDAY	26/09/16		Survey Type: MANUAL

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

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	2	422	4.265	2	422	4.265	2	422	8.530
07:00 - 08:00	4	367	7.299	4	367	7.094	4	367	14.393
08:00 - 09:00	4	367	9.277	4	367	9.482	4	367	18.759
09:00 - 10:00	4	367	6.276	4	367	5.866	4	367	12.142
10:00 - 11:00	4	367	5.798	4	367	5.525	4	367	11.323
11:00 - 12:00	4	367	4.911	4	367	5.389	4	367	10.300
12:00 - 13:00	4	367	7.162	4	367	6.958	4	367	14.120
13:00 - 14:00	4	367	5.457	4	367	5.321	4	367	10.778
14:00 - 15:00	4	367	5.662	4	367	5.866	4	367	11.528
15:00 - 16:00	4	367	6.548	4	367	6.276	4	367	12.824
16:00 - 17:00	4	367	6.685	4	367	6.617	4	367	13.302
17:00 - 18:00	4	367	8.663	4	367	8.731	4	367	17.394
18:00 - 19:00	4	367	9.891	4	367	9.618	4	367	19.509
19:00 - 20:00	4	367	8.458	4	367	8.254	4	367	16.712
20:00 - 21:00	3	391	3.237	3	391	3.578	3	391	6.815
21:00 - 22:00	3	391	2.215	3	391	2.385	3	391	4.600
22:00 - 23:00									
23:00 - 24:00									
Total Rates:		101.804			101.225			203.029	

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

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

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Parameter summary

Trip rate parameter range selected:	292 - 539 (units: sqm)
Survey date range:	01/01/13 - 25/09/19
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

APPENDIX J

Calculation Reference: AUDIT-219602-210917-0913

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : C - PUB/RESTAURANT

TOTAL VEHICLES

Selected regions and areas:

06	WEST MIDLANDS	
	ST STAFFORDSHIRE	1 days
08	NORTH WEST	
	GM GREATER MANCHESTER	1 days
09	NORTH	
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
 Actual Range: 400 to 720 (units: sqm)
 Range Selected by User: 112 to 2384 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/13 to 11/06/19

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

Selected survey days:

Tuesday	1 days
Wednesday	1 days
Friday	1 days

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

Selected survey types:

Manual count	3 days
Directional ATC Count	0 days

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

Selected Locations:

Edge of Town	3
--------------	---

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

Selected Location Sub Categories:

Residential Zone	3
------------------	---

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

Secondary Filtering selection:

Use Class:

Sui Generis 3 days

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

Population within 500m Range:

All Surveys Included

Population within 1 mile:

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

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

Population within 5 miles:

5,001 to 25,000	1 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	1 days

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

Travel Plan:

No 3 days

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

PTAL Rating:

No PTAL Present 3 days

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

LIST OF SITES relevant to selection parameters

1	GM-06-C-04 HELSMAN LANE ROCHDALE	HUNGRY HORSE		GREATER MANCHESTER
	Edge of Town Residential Zone			
	Total Gross floor area:	525 sqm		
	Survey date: TUESDAY	20/10/15		Survey Type: MANUAL
2	ST-06-C-01 STONE ROAD STOKE-ON-TRENT TRENTHAM	HARVESTER		STAFFORDSHIRE
	Edge of Town Residential Zone			
	Total Gross floor area:	720 sqm		
	Survey date: WEDNESDAY	23/10/13		Survey Type: MANUAL
3	TW-06-C-01 WHICKHAM HIGHWAY GATESHEAD	PUB/RESTAURANT		TYNE & WEAR
	Edge of Town Residential Zone			
	Total Gross floor area:	400 sqm		
	Survey date: FRIDAY	04/10/13		Survey Type: MANUAL

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

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/C - PUB/RESTAURANT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00									
08:00 - 09:00									
09:00 - 10:00									
10:00 - 11:00	3	548	0.486	3	548	0.486	3	548	0.972
11:00 - 12:00	3	548	1.581	3	548	0.608	3	548	2.189
12:00 - 13:00	3	548	2.371	3	548	1.216	3	548	3.587
13:00 - 14:00	3	548	2.067	3	548	2.128	3	548	4.195
14:00 - 15:00	3	548	1.033	3	548	2.067	3	548	3.100
15:00 - 16:00	3	548	1.398	3	548	1.155	3	548	2.553
16:00 - 17:00	3	548	3.161	3	548	1.337	3	548	4.498
17:00 - 18:00	3	548	4.012	3	548	2.857	3	548	6.869
18:00 - 19:00	3	548	3.465	3	548	2.675	3	548	6.140
19:00 - 20:00	3	548	2.553	3	548	3.769	3	548	6.322
20:00 - 21:00	3	548	1.398	3	548	2.979	3	548	4.377
21:00 - 22:00	3	548	0.973	3	548	1.824	3	548	2.797
22:00 - 23:00	3	548	0.851	3	548	1.520	3	548	2.371
23:00 - 24:00	3	548	0.243	3	548	0.608	3	548	0.851
Total Rates:			25.592				25.229	50.821	

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

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

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Parameter summary

Trip rate parameter range selected:	400 - 720 (units: sqm)
Survey date range:	01/01/13 - 11/06/19
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

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

APPENDIX K

Duration of stay

Bay Number	AVERAGE DURATION (HH:MM:SS)		
	Friday 1st	Saturday 2nd	Sunday 3rd
1	00:10:11	00:11:09	00:14:13
2	00:07:25	00:07:29	00:08:30
3	00:07:58	00:16:53	00:07:26
4	00:08:33	00:05:00	00:05:38
5	00:06:27	00:07:18	00:05:50
6	00:06:40	00:09:37	00:06:31
7	00:07:04	00:07:19	00:09:46
8	00:04:47	00:26:20	00:06:20
9	00:05:34	00:07:07	00:05:48
10	00:06:55	00:51:05	00:06:40
11	00:05:47	00:06:29	00:06:15
12	00:09:25	00:12:05	00:05:19
13	00:07:18	00:05:52	00:06:02
14	00:29:42	00:12:29	00:06:49
15	00:05:46	00:05:42	00:06:01
16	00:09:24	00:04:57	00:05:32
17	00:00:00	00:00:00	00:00:00
18	00:05:40	00:06:43	00:06:17
19	00:09:14	00:09:14	00:09:21
All Bays	00:08:06	00:11:12	00:06:45

Accumulation

	Vehicles Parked at the end of the 15 minute period		
	Friday 1st	Saturday 2nd	Sunday 3rd
Start:	5	2	6
08:15	7	2	1
08:30	5	2	3
08:45	7	2	1
09:00	7	3	2
09:15	9	3	3
09:30	8	5	3
09:45	7	7	3
10:00	8	6	3
10:15	14	6	2
10:30	12	9	5
10:45	12	13	4
11:00	12	7	3
11:15	11	10	2
11:30	13	11	4
11:45	14	10	4
12:00	14	11	8
12:15	15	7	6
12:30	13	12	5
12:45	9	10	5
13:00	9	6	7
13:15	12	11	4
13:30	11	9	10
13:45	13	13	6
14:00	14	10	5
14:15	9	12	5
14:30	14	10	9
14:45	10	12	6
15:00	7	6	6
15:15	10	12	9
15:30	9	13	6
15:45	9	6	7
16:00	15	7	6
16:15	11	9	10
16:30	10	10	10
16:45	14	4	12
17:00	14	6	13
17:15	5	9	8
17:30	13	10	10
17:45	10	10	14
18:00	13	8	11
18:15	11	8	12
18:30	12	8	7
18:45	11	6	12
19:00	8	5	10
19:15	10	8	10
19:30	11	1	6
19:45	5	4	7
20:00	12	7	9
20:15	3	7	9
20:30	3	7	9
20:45	3	7	9
21:00	3	7	9
Max:	15	13	14



Trethomas Parking Survey, Friday 1st December 2017

Friday Average Stay	00:07:47
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Time in HH:MM:SS

Average Stay	00:10:11
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Average Stay	00:07:25
--------------	----------

Average Stay	00:07:58
--------------	----------

Average Stay	00:08:33
--------------	----------

Average Stay	00:06:27
--------------	----------

Bay 1		
Time IN	Time OUT	DURATION
08:22:26	09:23:14	01:00:48
10:44:30	10:49:13	00:04:43
10:58:57	11:19:32	00:20:35
11:48:33	11:52:16	00:03:43
11:52:27	12:03:13	00:10:46
12:09:54	12:16:08	00:06:14
12:18:30	12:23:32	00:05:02
12:27:40	12:31:02	00:03:22
13:42:20	13:54:24	00:12:04
14:23:33	14:24:27	00:00:54
14:28:54	14:31:20	00:02:26
14:35:54	14:41:54	00:06:00
14:46:00	14:47:36	00:01:36
14:49:49	14:53:54	00:04:05
15:28:26	15:37:12	00:08:46
16:07:16	16:11:03	00:03:47
16:13:12	16:31:11	00:17:59
16:34:21	16:51:03	00:16:42
16:55:23	17:05:26	00:10:03
17:22:08	17:25:55	00:03:47
19:01:40	19:18:00	00:16:20
19:08:51	19:13:13	00:04:22
19:16:41	In at End	-

Bay 2		
Time IN	Time OUT	DURATION
08:49:14	08:52:27	00:03:13
10:42:16	11:13:07	00:30:51
11:23:49	11:27:14	00:03:25
12:15:02	12:25:21	00:10:19
12:26:59	12:29:30	00:02:31
12:31:59	12:38:32	00:06:33
13:13:39	13:16:53	00:03:14
13:19:08	13:24:19	00:05:11
13:56:44	14:09:07	00:12:23
15:27:40	15:29:35	00:01:55
15:59:20	16:03:59	00:04:39
16:54:32	17:01:02	00:06:30
17:45:37	17:51:25	00:05:48
18:00:32	18:04:45	00:04:13
18:24:17	18:34:13	00:09:56
18:57:03	19:04:59	00:07:56

Bay 3		
Time IN	Time OUT	DURATION
08:39:06	08:42:07	00:03:01
09:53:20	10:07:34	00:14:14
10:14:51	10:19:16	00:04:25
10:20:40	10:23:56	00:03:16
10:25:16	10:33:51	00:08:35
11:21:42	11:38:45	00:17:03
11:38:58	11:44:28	00:05:30
11:47:04	11:56:42	00:09:38
13:33:00	13:49:53	00:16:53
13:52:25	13:58:44	00:06:19
14:22:21	14:36:47	00:14:26
14:38:49	14:56:13	00:17:24
15:19:41	15:24:53	00:05:12
16:05:43	16:11:18	00:05:35
16:21:16	16:26:56	00:05:40
16:38:06	16:41:08	00:03:02
16:41:20	16:48:44	00:07:24
16:53:25	16:58:06	00:04:41
17:21:01	17:26:09	00:05:08
17:34:41	17:39:12	00:04:31
17:59:51	18:05:33	00:05:42
18:11:00	18:18:46	00:07:46
19:08:14	19:19:22	00:11:08
19:56:38	20:01:11	00:04:33

Bay 4		
Time IN	Time OUT	DURATION
In at Start	08:10:59	-
09:48:56	09:57:00	00:08:04
10:01:14	10:18:49	00:17:35
10:21:37	10:25:04	00:03:27
10:39:31	10:43:12	00:03:41
11:11:06	11:15:57	00:04:51
11:46:06	12:01:17	00:15:11
12:04:24	12:24:09	00:19:45
12:25:52	12:33:01	00:07:09
12:49:22	13:03:24	00:14:02
13:59:35	14:03:48	00:04:13
14:04:21	14:10:41	00:06:20
14:48:12	14:53:33	00:05:21
15:12:20	15:33:08	00:20:48
15:58:21	16:13:15	00:14:54
16:19:02	16:25:52	00:06:50
16:44:57	16:47:56	00:02:59
16:59:03	17:09:01	00:09:58
17:54:02	17:56:57	00:02:55
18:15:07	18:17:08	00:02:01
18:25:12	18:28:30	00:03:18
18:30:27	18:36:43	00:06:16
18:47:09	In at End	-

Bay 5		
Time IN	Time OUT	DURATION
09:14:14	09:14:30	00:00:16
09:20:35	09:23:00	00:02:25
09:43:15	09:48:11	00:04:56
09:48:23	09:53:29	00:05:06
09:53:45	09:57:37	00:03:52
10:10:51	10:16:52	00:06:01
10:20:31	10:27:33	00:07:02
10:28:32	10:34:16	00:05:44
10:39:06	10:44:47	00:05:41
10:46:10	10:47:19	00:01:09
10:54:31	11:02:08	00:07:37
11:06:49	11:10:36	00:03:47
11:20:15	11:30:09	00:09:54
11:38:44	11:47:14	00:08:30
11:48:30	12:05:06	00:16:36
12:15:37	12:21:24	00:05:47
12:25:13	12:29:46	00:04:33
13:07:35	13:15:25	00:07:50
13:24:22	13:27:56	00:03:34
13:31:16	13:45:21	00:14:05
13:51:27	14:03:03	00:11:36
14:16:40	14:39:41	00:23:01
14:44:15	14:48:43	00:04:28
15:42:47	15:47:31	00:04:44
15:57:44	16:01:33	00:03:49
16:29:54	16:36:57	00:07:03
16:37:54	16:43:49	00:05:55
16:49:48	16:56:03	00:06:15
16:56:35	17:00:47	00:04:12
17:20:41	17:28:52	00:08:11
17:29:12	17:34:58	00:05:46
17:53:56	17:55:32	00:01:36
17:57:07	18:05:57	00:08:50
18:24:11	18:28:59	00:04:48
18:30:13	18:35:50	00:05:37
18:44:54	18:49:20	00:04:26
18:55:20	19:01:58	00:06:38
19:02:30	19:10:18	00:07:48
19:15:48	19:19:43	00:03:55
19:28:53	19:35:03	00:06:10
19:51:51	19:58:48	00:06:57

Time IN
08:05:26
09:06:59
09:19:16
09:37:39
09:58:52
10:33:02
11:11:01
11:25:11
12:05:25
12:27:27
12:33:25
14:04:04
14:08:12
14:40:25
14:47:58
15:10:33
15:15:21
15:17:58
15:25:27
15:38:03
16:00:14
16:13:35
16:35:41
16:43:58
17:01:28
17:46:49
18:07:01
18:28:22
19:10:49
19:56:26

Average Stay	00:06:40
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Average Stay	00:07:04
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Average Stay	00:04:47
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Average Stay	00:05:34
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Average Stay	00:06:55
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Average Stay	
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Bay 6	
Time OUT	DURATION
08:13:13	00:07:47
09:12:44	00:05:45
09:24:42	00:05:26
09:39:32	00:01:53
10:03:34	00:04:42
10:58:06	00:25:04
11:15:05	00:04:04
11:30:39	00:05:28
12:21:33	00:16:08
12:31:10	00:03:43
12:38:18	00:04:53
14:06:55	00:02:51
14:11:05	00:02:53
14:43:16	00:02:51
14:57:57	00:09:59
15:14:20	00:03:47
15:17:08	00:01:47
15:36:04	00:18:06
15:31:14	00:05:47
15:39:28	00:01:25
16:11:47	00:11:33
16:22:32	00:08:57
16:39:32	00:03:51
16:46:30	00:02:32
17:13:18	00:11:50
17:52:16	00:05:27
18:17:29	00:10:28
18:31:01	00:02:39
19:14:51	00:04:02
20:00:52	00:04:26

Bay 7		
Time IN	Time OUT	DURATION
08:10:32	08:15:49	00:05:17
09:02:09	09:10:18	00:08:09
09:15:59	09:25:16	00:09:17
09:30:26	09:34:56	00:04:30
09:40:58	09:45:06	00:04:08
09:45:29	11:15:53	01:30:24
11:19:20	11:28:57	00:09:37
11:29:53	11:34:45	00:04:52
11:38:09	11:57:35	00:19:26
12:00:23	12:07:20	00:06:57
12:08:45	12:10:29	00:01:44
12:10:45	12:13:14	00:02:29
12:14:39	12:21:47	00:07:08
12:24:17	12:32:41	00:08:24
12:41:25	12:46:17	00:04:52
12:47:43	12:50:39	00:02:56
12:55:48	12:59:59	00:04:11
13:13:20	13:15:46	00:02:26
13:17:08	13:20:20	00:03:12
13:21:18	13:31:49	00:10:31
13:34:44	13:37:33	00:02:49
13:37:54	13:40:44	00:02:50
13:41:28	13:48:13	00:06:45
13:50:32	13:58:27	00:07:55
13:58:40	14:03:19	00:04:39
14:03:58	14:11:33	00:07:35
14:15:51	14:25:59	00:10:08
14:26:46	14:29:05	00:02:19
14:31:32	14:40:34	00:09:02
14:43:46	14:48:19	00:04:33
14:49:39	14:53:03	00:03:24
15:03:31	15:05:33	00:02:02
15:10:00	15:13:09	00:03:09
15:14:11	15:23:20	00:09:09
15:39:59	15:54:38	00:14:39
15:56:06	16:08:05	00:11:59
16:11:36	16:15:47	00:04:11
16:21:30	16:25:11	00:03:41
16:26:16	16:32:09	00:05:53
16:39:02	16:41:34	00:02:32
16:41:44	16:50:43	00:08:59
16:52:50	17:03:34	00:10:44
17:11:43	17:16:07	00:04:24
17:17:57	17:27:18	00:09:21
17:27:34	17:37:02	00:09:28
17:39:11	17:43:03	00:03:52
17:44:24	17:50:30	00:06:06
17:52:57	17:56:44	00:03:47
17:56:54	18:01:16	00:04:22
18:03:06	18:05:11	00:02:05
18:06:44	18:09:22	00:02:38
18:14:44	18:26:06	00:11:22
18:26:51	18:31:19	00:04:28
18:32:55	18:36:02	00:03:07
18:37:01	18:39:49	00:02:48
18:42:03	18:45:30	00:03:27
18:46:37	18:49:44	00:03:07
18:52:34	18:59:25	00:06:51
19:01:17	19:04:30	00:03:13
19:04:43	19:09:56	00:05:13
19:10:06	19:16:13	00:06:07
19:18:03	19:22:42	00:04:39
19:27:53	19:31:20	00:03:27
19:51:34	19:54:12	00:02:38
19:57:50	20:00:46	00:02:56

Bay 8		
Time IN	Time OUT	DURATION
08:10:50	08:12:57	00:02:07
09:19:22	09:20:35	00:01:13
09:41:27	09:44:29	00:03:02
09:49:45	09:50:52	00:01:07
09:54:42	09:57:16	00:02:34
10:08:08	10:21:51	00:13:43
10:23:02	10:28:58	00:05:56
10:34:26	10:38:44	00:04:18
11:11:10	11:13:31	00:02:21
11:22:00	11:29:12	00:07:12
11:39:02	12:00:11	00:21:09
12:03:44	12:10:10	00:06:26
12:12:48	12:14:59	00:02:11
12:16:10	12:21:06	00:04:56
12:25:16	12:37:17	00:12:01
12:51:39	12:53:29	00:01:50
13:53:42	13:56:42	00:03:03
13:56:58	14:00:56	00:03:58
14:03:51	14:07:36	00:03:45
14:20:22	14:27:02	00:06:40
15:19:47	15:24:39	00:04:52
15:34:24	15:40:58	00:06:34
15:42:15	15:52:12	00:09:57
15:58:55	16:02:21	00:03:26
16:31:49	16:36:28	00:04:39
16:36:46	16:39:51	00:03:05
17:01:12	17:02:32	00:01:20
17:20:43	17:24:32	00:03:49
17:28:29	17:31:25	00:02:56
17:35:17	17:40:05	00:04:48
17:44:48	17:46:17	00:01:29
17:51:30	17:54:08	00:02:38
17:54:32	17:57:54	00:03:22
18:28:33	18:33:20	00:04:47
18:46:45	18:48:58	00:02:13
18:56:12	18:57:54	00:01:42
19:01:14	19:02:55	00:01:41
19:05:56	19:12:30	00:06:34
19:14:06	19:21:12	00:07:06

Bay 9		
Time IN	Time OUT	DURATION
In at Start	12:57:20	-
13:05:28	13:12:16	00:06:48
13:17:30	13:19:38	00:02:08
13:20:45	13:25:47	00:05:02
13:29:36	13:32:07	00:02:31
13:29:41	13:32:12	00:02:31
13:33:45	13:46:31	00:12:46
13:49:18	13:53:16	00:03:58
14:27:54	14:34:46	00:06:52
14:55:13	14:58:12	00:02:59
15:02:30	15:13:08	00:10:38
15:14:06	15:23:45	00:09:39
15:24:01	15:29:13	00:05:12
15:36:55	15:41:16	00:04:21
15:53:32	15:56:23	00:02:51
15:56:48	16:01:53	00:05:05
16:04:40	16:06:04	00:01:24
16:14:57	16:16:46	00:01:49
16:21:50	16:36:32	00:14:42
16:50:06	16:54:02	00:03:56
16:57:48	17:00:13	00:02:25
17:00:06	17:07:31	00:07:25
17:08:50	17:10:12	00:01:22
17:11:35	17:18:25	00:06:50
17:18:59	17:22:53	00:03:54
17:25:18	17:31:59	00:06:41
17:32:14	17:37:38	00:05:24
17:38:49	17:40:57	00:02:08
17:58:07	18:06:01	00:07:54
18:13:36	18:16:31	00:02:55
18:19:10	18:20:34	00:01:24
18:24:28	18:32:21	00:07:53
18:26:49	18:27:10	00:00:21
18:36:52	18:37:47	00:00:55
18:37:57	18:48:37	00:10:40
18:51:21	19:04:47	00:13:26
19:05:31	19:18:26	00:12:55
19:28:38	19:29:55	00:01:17
19:48:03	19:58:22	00:10:19

Bay 10		
Time IN	Time OUT	DURATION
08:15:36	08:18:46	00:03:10
08:43:18	08:45:57	00:02:39
08:54:07	08:58:09	00:04:02
09:00:37	09:10:42	00:10:05
09:47:36	09:51:13	00:03:37
10:03:55	10:19:57	00:16:02
10:21:53	10:26:10	00:04:17
10:27:12	10:27:54	00:00:42
10:38:58	10:42:32	00:03:34
10:47:56	10:56:58	00:09:02
11:09:24	11:12:18	00:02:54
11:23:02	12:17:10	00:54:08
12:18:13	12:28:14	00:10:01
12:31:00	12:33:35	00:02:35
12:34:16	12:37:31	00:03:15
13:08:27	13:11:09	00:02:42
13:13:32	13:17:59	00:04:27
13:20:12	13:44:50	00:24:38
13:47:16	13:53:10	00:05:54
13:56:17	14:16:19	00:20:02
14:16:50	14:32:37	00:15:47
14:33:48	14:35:44	00:01:56
14:36:05	14:56:21	00:20:16
14:58:12	15:00:35	00:02:23
15:01:39	15:03:36	00:01:57
15:05:04	15:07:50	00:02:46
15:08:17	15:14:06	00:05:49
15:15:50	15:16:10	00:00:20
15:16:32	15:18:10	00:01:38
15:34:06	15:36:11	00:02:05
15:41:41	15:44:21	00:02:40
15:49:57	16:03:42	00:13:45
16:06:40	16:17:14	00:10:34
16:18:20	16:34:48	00:16:28
16:35:07	16:47:15	00:12:08
16:48:07	16:54:41	00:06:34
16:55:06	17:00:13	00:05:07
17:00:24	17:10:01	00:09:37
17:11:22	17:14:18	00:02:56
17:17:52	17:21:06	00:03:14
17:18:37	17:23:09	00:04:32
17:23:42	17:29:12	00:05:30
17:31:05	17:34:51	00:03:46
17:36:40	17:37:32	00:00:52
17:39:14	17:40:45	00:01:31
17:41:10	17:47:48	00:06:38
17:48:23	17:59:18	00:10:55
17:59:42	18:08:59	00:09:17
18:09:37	18:12:08	00:02:31
18:12:16	18:18:17	00:06:01
18:18:32	18:21:10	00:02:38
18:21:55	18:24:16	00:02:21
18:24:23	18:30:28	00:06:05
18:32:09	18:35:27	00:03:18
18:35:55	18:40:15	00:04:20
18:45:53	18:47:39	00:01:46
18:55:06	18:58:26	00:03:20
19:00:50	19:13:18	00:12:28
19:21:38	19:24:46	00:03:08
19:25:34	19:34:59	00:09:25
19:38:11	19:41:39	00:03:28
19:46:57	19:49:40	00:02:43
19:57:51	20:01:34	00:03:43

Bay 11	
Time IN	Time OUT
08:06:51	08:14:11
	08:44:58
08:46:03	08:48:29
08:48:52	08:55:26
09:17:18	09:24:53
09:26:24	09:36:18
09:52:41	09:58:17
09:59:45	10:33:46
10:42:45	10:46:21
10:57:13	10:59:33
11:01:51	11:07:16
11:13:38	11:16:38
11:19:52	11:24:42
11:26:12	11:29:38
11:41:14	11:47:50
11:48:57	11:53:03
11:54:41	11:56:50
11:57:04	12:03:38
12:09:17	12:15:40
12:16:12	12:27:33
12:29:40	12:34:12
12:38:26	12:45:05
12:45:32	12:50:36
12:51:17	12:53:04
12:53:27	12:53:47
12:54:36	12:56:32
13:02:31	13:10:44
13:11:46	13:16:42
13:18:12	13:21:30
13:22:43	13:32:50
13:35:15	13:36:50
13:43:36	14:05:56
14:10:19	14:19:45
14:21:08	14:38:34
14:39:07	14:52:06
14:57:06	14:59:35
15:00:37	15:02:32
15:03:59	15:06:46
15:09:34	15:13:03
15:15:24	15:17:07
15:18:20	15:20:08
15:23:02	15:28:11
15:33:05	15:35:05
15:35:45	15:40:12
15:40:36	15:43:16
15:48:55	16:02:40
16:10:10	16:16:17
16:34:15	16:37:14
16:50:36	16:58:47
16:59:14	17:08:55
17:10:35	17:13:12
17:35:38	17:40:55
17:41:40	17:42:11
17:42:57	17:46:50
17:52:06	17:52:16
17:52:20	17:55:06
17:55:26	17:58:58
17:59:11	18:00:33
18:06:19	18:19:42
18:21:24	18:2

00:05:47

Average Stay 00:09:25

Average Stay 00:07:18

Average Stay 00:29:42

Average Stay 00:05:46

Average Stay 00:09:24

DURATION
00:07:20
00:02:37
00:02:26
00:06:34
00:07:35
00:09:54
00:05:36
00:34:01
00:03:36
00:02:20
00:05:25
00:03:00
00:04:50
00:03:26
00:06:36
00:04:06
00:02:09
00:06:34
00:06:23
00:11:21
00:04:32
00:06:39
00:05:04
00:01:47
00:00:20
00:01:56
00:08:13
00:04:56
00:03:18
00:10:07
00:01:35
00:22:20
00:09:26
00:17:26
00:12:59
00:02:29
00:01:55
00:02:47
00:03:29
00:01:43
00:01:48
00:05:09
00:02:00
00:04:27
00:02:40
00:13:45
00:06:07
00:02:59
00:08:11
00:09:41
00:02:37
00:05:17
00:00:31
00:03:53
00:00:10
00:02:46
00:03:32
00:01:22
00:13:23
00:03:12
00:02:54
00:03:27
00:02:58
00:02:58
00:09:29
00:03:10
00:10:32
00:05:58

Bay 12			
Time IN	Time OUT	DURATION	
08:03:49	08:04:01	00:00:12	
08:14:29	08:17:29	00:03:00	
08:23:30	08:46:17	00:22:47	
08:32:46	08:46:07	00:13:21	
09:13:16	09:20:23	00:07:07	
09:23:48	09:30:52	00:07:04	
09:41:44	09:49:30	00:07:46	
09:46:39	09:49:35	00:02:56	
09:51:04	09:56:04	00:05:00	
10:00:51	14:08:38	04:07:47	
14:11:47	14:12:44	00:00:57	
14:13:37	14:20:12	00:06:35	
14:22:02	14:23:43	00:01:41	
14:25:36	14:32:48	00:07:12	
14:33:40	14:36:43	00:03:03	
14:37:31	14:40:06	00:02:35	
14:41:43	14:44:54	00:03:11	
14:52:54	14:57:10	00:04:16	
15:07:57	15:04:11	00:06:14	
15:07:06	15:14:19	00:07:13	
15:14:36	15:15:07	00:00:31	
15:20:21	15:27:56	00:07:35	
15:30:17	15:33:30	00:03:13	
15:34:27	15:37:30	00:03:03	
15:40:02	15:50:08	00:10:06	
15:50:51	16:01:52	00:11:01	
16:03:43	16:09:28	00:05:45	
16:16:30	16:19:32	00:03:02	
16:26:52	16:28:11	00:01:19	
16:29:38	16:32:27	00:02:49	
16:37:28	16:48:01	00:10:33	
16:59:25	17:05:51	00:06:26	
17:06:20	17:11:50	00:05:30	
17:16:52	17:26:52	00:10:00	
17:27:19	17:33:54	00:06:35	
17:34:01	17:36:03	00:02:02	
17:41:27	17:45:55	00:04:28	
17:48:46	17:54:50	00:06:04	
17:55:13	17:59:27	00:04:14	
18:00:26	18:05:42	00:05:16	
18:06:02	18:07:04	00:01:02	
18:08:40	18:10:47	00:02:07	
18:10:57	18:16:05	00:05:08	
18:15:19	18:15:58	00:00:39	
18:16:15	18:17:17	00:01:02	
18:17:26	18:26:04	00:08:38	
18:26:57	18:31:54	00:04:57	
18:35:28	18:37:31	00:02:03	
18:37:46	18:40:34	00:02:48	
18:41:02	18:50:46	00:09:46	
19:02:32	19:05:04	00:02:32	
19:05:16	19:18:29	00:13:13	
19:19:22	19:28:38	00:09:16	
19:29:44	19:34:33	00:04:49	
19:47:46	19:49:07	00:01:21	
19:52:25	19:57:12	00:04:47	
19:57:36	19:58:50	00:01:14	
19:58:59	20:00:20	00:01:21	

Bay 13			
Time IN	Time OUT	DURATION	
In at Start	08:00:41	-	
08:06:29	08:10:23	00:03:54	
08:22:11	08:25:18	00:03:07	
08:36:32	08:39:32	00:03:00	
08:46:36	08:54:16	00:07:40	
08:54:35	09:03:06	00:08:31	
09:04:09	09:06:56	00:02:47	
09:10:57	09:23:09	00:12:12	
09:14:12	09:16:52	00:02:40	
09:23:26	09:27:08	00:03:42	
09:33:24	09:35:58	00:02:34	
09:41:32	09:44:08	00:02:36	
09:45:24	09:49:00	00:03:36	
09:51:37	09:53:36	00:01:59	
09:55:45	09:57:40	00:01:55	
10:00:12	10:04:28	00:04:16	
10:04:40	10:07:08	00:02:28	
10:09:14	10:22:42	00:13:28	
10:22:57	10:30:02	00:07:05	
10:41:41	10:44:20	00:02:39	
10:48:19	10:49:07	00:00:48	
10:55:44	10:59:49	00:04:05	
11:04:16	11:10:08	00:05:52	
11:19:39	11:24:38	00:04:59	
11:26:04	12:12:34	00:46:30	
12:13:22	12:20:58	00:07:36	
12:22:35	12:34:45	00:12:10	
12:36:19	12:39:05	00:02:46	
12:47:53	12:49:36	00:01:43	
12:50:25	12:58:25	00:08:00	
12:59:23	13:01:56	00:02:33	
13:04:09	13:13:07	00:08:58	
13:13:30	13:20:05	00:06:35	
13:20:21	13:25:37	00:05:16	
13:26:04	13:29:39	00:03:35	
13:33:30	13:35:30	00:02:00	
13:39:14	13:48:27	00:09:13	
13:49:12	13:51:17	00:02:05	
13:51:28	15:16:19	01:24:51	
15:11:48	15:16:14	00:04:26	
15:17:01	15:20:25	00:03:24	
15:22:21	15:42:15	00:19:54	
15:42:50	15:47:20	00:04:30	
16:02:12	16:06:37	00:04:25	
16:03:56	16:13:06	00:09:10	
16:16:03	16:17:17	00:01:14	
16:17:39	16:22:31	00:04:52	
16:22:48	16:23:29	00:00:41	
16:23:42	16:26:39	00:02:57	
16:27:53	16:42:43	00:14:50	
16:42:56	16:46:04	00:03:08	
16:47:39	16:49:40	00:02:01	
16:50:38	16:59:06	00:08:28	
17:16:24	17:19:59	00:03:35	
17:20:36	17:44:30	00:23:54	
17:45:34	17:48:05	00:02:31	
17:49:54	17:53:40	00:03:46	
18:15:41	18:16:32	00:00:51	
18:16:37	18:20:09	00:03:32	
18:21:59	18:27:44	00:05:45	
18:28:10	18:33:26	00:05:16	
18:34:42	18:38:31	00:03:49	
18:40:19	18:46:08	00:05:49	
18:43:11	18:47:56	00:04:45	
18:48:23	18:55:31	00:07:08	
19:02:23	19:10:14	00:07:51	
19:11:02	19:23:26	00:12:24	
19:27:27	19:38:28	00:11:01	
19:40:02	19:40:58	00:00:56	
19:42:33	19:47:00	00:04:27	
19:49:05	19:58:35	00:09:30	

Bay 14			
Time IN	Time OUT	DURATION	
In at Start	08:04:05	-	
08:08:37	08:09:04	00:00:27	
08:09:14	08:12:20	00:03:06	
08:13:36	08:17:09	00:03:33	
08:37:37	08:37:48	00:00:11	
08:45:42	08:49:05	00:03:23	
08:50:02	09:01:06	00:11:04	
09:04:17	09:06:14	00:01:57	
09:12:14	09:18:43	00:06:29	
09:18:56	18:29:23	09:10:27	
18:33:15	18:35:58	00:02:43	
18:36:13	18:41:45	00:05:32	
18:42:02	18:49:14	00:07:12	
18:52:52	18:55:26	00:02:34	
18:55:54	19:08:45	00:12:51	
19:09:04	19:14:53	00:05:49	
19:16:24	19:19:43	00:03:19	
19:24:04	19:28:42	00:04:38	
19:29:52	19:35:38	00:05:46	
19:36:25	19:42:36	00:06:11	
19:45:14	19:50:44	00:05:30	
19:51:31	19:54:02	00:02:31	
19:54:54	20:02:57	00:08:03	

Bay 15			
Time IN	Time OUT	DURATION	
In at Start	15:08:37	-	
15:09:57	15:13:46	00:03:49	
15:14:53	15:16:49	00:01:56	
15:18:38	15:21:00	00:02:22	
15:21:28	15:28:40	00:07:12	
15:29:20	15:33:40	00:04:20	
15:35:16	16:12:14	00:36:58	
16:13:42	16:17:29	00:03:47	
16:18:28	16:22:48	00:04:20	
16:23:28	16:24:50	00:01:22	
16:25:03	16:27:52	00:02:49	
16:30:38	16:38:38	00:08:00	
16:39:29	16:43:12	00:03:43	
16:43:46	16:46:48	00:03:02	
16:47:22	16:50:54	00:03:32	
16:51:11	17:01:22	00:10:11	
17:04:34	17:06:29	00:01:55	
17:09:03	17:11:00	00:01:57	
17:12:58	17:15:12	00:02:14	
17:15:25	17:18:23	00:02:58	
17:19:22	17:22:48	00:03:26	
17:23:52	17:35:11	00:11:19	
17:35:48	In at End	-	

Bay 16			
Time IN	Time OUT	DURATION	
08:02:32	08:05:57	00:03:25	
08:08:17	08:13:46	00:05:29	
08:24:12	08:28:23	00:04:11	
09:18:53	09:26:01	00:07:08	
09:27:37	09:31:07	00:03:30	
09:41:21	09:42:03	00:00:42	
09:46:48	09:49:07	00:02:19	
09:52:10	09:55:14	00:03:04	
10:02:23	10:03:03	00:00:40	
10:03:21	14:32:13	04:28:52	
10:13:35	10:14:26	00:00:51	
14:35:29	14:38:42	00:03:13	
14:40:36	14:43:37	00:03:01	
14:44:38	14:48:55	00:04:17	
14:50:01	14:54:17	00:04:16	
14:57:10	14:58:01	00:00:51	
14:59:01	15:02:38	00:03:37	
15:07:41	15:14:11	00:06:30	
15:15:02	15:18:18	00:03:16	
15:20:48	15:23:45	00:02:57	
15:25:48	15:27:42	00:01:54	
15:34:11	15:37:06	00:02:55	
15:37:24	15:40:01	00:02:37	
15:41:15	15:44:18	00:03:03	
15:54:24	16:06:09	00:11:45	
16:08:07	16:11:16	00:03:09	
16:11:50	16:25:48	00:13:58	
16:26:15	16:30:07	00:03:52	
16:35:40	16:47:45	00:12:05	
16:48:24	16:54:31	00:06:07	
16:55:15	16:56:48	00:01:33	
16:57:30	17:00:52	00:03:22	
17:05:11	17:08:14	00:03:03	
17:17:02	17:26:18	00:09:16	
17:26:35	17:30:57	00:04:22	
17:32:02	17:34:33	00:02:31	
17:36:35	17:48:40	00:12:05	
17:51:36	18:03:08	00:11:32	
18:03:20	18:04:27	00:01:07	
18:09:22	18:16:50	00:07:28	
18:18:15	18:23:40	00:05:25	
18:23:57	18:29:01	00:05:04	
18:30:55	18:32:42	00:01:47	
18:33:11	18:36:45	00:03:34	
18:43:10	18:46:08	00:02:58	
18:48:53	18:50:06	00:01:13	
18:53:40	18:55:07	00:01:27	
18:59:44	19:14:44	00:15:00	
19:16:10	19:21:49	00:05:39	
19:26:21	19:28:30	00:02:09	
19:33:48	19:35:33	00:01:45	
19:40:32	19:43:20	00:02:48	
19:47:11	19:49:52	00:02:41	
19:53:10	19:59:04	00:05:54	

** 1 OGV across 3 bays

Average Stay	00:06:24
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Average Stay	00:05:40
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Average Stay	00:09:14
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Average Stay	00:02:49
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Bay 17		
Time IN	Time OUT	DURATION
08:09:03	08:11:14	00:02:11
09:29:30	09:34:57	00:05:27
10:21:47	10:28:21	00:06:34
10:31:47	10:35:28	00:03:41
10:39:06	10:39:27	00:00:21
10:42:48	10:45:36	00:02:48
10:58:44	11:01:24	00:02:40
11:17:26	11:19:55	00:02:29
11:22:35	12:05:30	00:42:55
12:08:42	12:15:00	00:06:18
12:15:27	12:17:57	00:02:30
12:19:02	12:24:28	00:05:26
12:27:26	12:29:52	00:02:26
12:31:21	12:34:18	00:02:57
12:43:11	12:55:07	00:11:56
12:58:35	13:02:02	00:03:27
13:06:17	13:12:54	00:06:37
13:13:09	13:24:25	00:11:16
13:28:02	13:30:43	00:02:41
13:33:03	13:34:56	00:01:53
13:37:09	13:41:23	00:04:14
13:46:06	13:51:44	00:05:38
13:55:29	13:58:54	00:03:25
14:06:37	14:08:54	00:02:17
14:14:29	14:19:49	00:05:20
14:21:42	14:24:14	00:02:32
14:26:00	14:33:13	00:07:13
14:36:47	14:39:35	00:02:48
14:50:05	14:51:28	00:01:23
15:09:01	15:11:10	00:02:09
15:13:19	15:18:43	00:05:24
15:25:51	15:46:47	00:20:56
15:54:34	15:57:51	00:03:17
16:01:40	16:06:23	00:04:43
16:13:37	16:17:56	00:04:19
16:18:58	16:23:02	00:04:04
16:30:50	16:35:07	00:04:17
16:36:23	16:42:35	00:06:12
16:44:16	16:52:21	00:08:05
16:53:04	16:55:10	00:02:06
16:59:26	17:12:34	00:13:08
17:19:43	17:25:49	00:06:06
17:26:41	17:30:05	00:03:24
17:33:28	17:34:54	00:01:26
17:37:13	18:06:19	00:29:06
18:11:11	18:13:14	00:02:03
18:15:18	18:17:12	00:01:54
18:19:01	18:22:30	00:03:29
18:24:04	18:30:38	00:06:34
18:31:44	18:32:55	00:01:11
18:35:40	18:56:05	00:20:25
19:05:18	19:18:20	00:13:02
19:19:27	19:28:47	00:09:20
19:35:20	19:44:24	00:09:04
19:56:46	20:01:55	00:05:09

Bay 18		
Time IN	Time OUT	DURATION
08:13:42	08:16:28	00:02:46
10:25:30	10:31:21	00:05:51
10:58:49	11:05:35	00:06:46
11:38:06	11:45:09	00:07:03
11:50:42	11:55:56	00:05:14
12:01:51	12:04:44	00:02:53
12:13:37	12:17:09	00:03:32
12:51:59	12:58:41	00:06:42
12:59:46	13:00:30	00:00:44
13:00:58	13:02:49	00:01:51
13:30:26	14:04:52	00:34:26
14:08:39	14:13:25	00:04:46
14:19:20	14:22:17	00:02:57
14:28:35	14:36:20	00:07:45
15:58:21	16:00:33	00:02:12
16:15:51	16:20:56	00:05:05
16:34:04	16:39:46	00:05:42
16:40:51	16:42:50	00:01:59
16:44:22	16:49:05	00:04:43
16:49:37	16:53:15	00:03:38
17:05:17	17:07:29	00:02:12
17:18:21	17:21:24	00:03:03
17:29:33	17:38:38	00:09:05
17:39:22	17:43:44	00:04:22
17:47:39	18:06:32	00:18:53
18:10:43	18:14:27	00:03:44
18:24:17	18:31:01	00:06:44
18:53:58	18:56:50	00:02:52
19:03:06	19:04:43	00:01:37
19:08:02	19:12:51	00:04:49
19:18:04	19:19:51	00:01:47

Bay 19		
Time IN	Time OUT	DURATION
08:29:54	08:56:09	00:26:15
08:57:59	09:18:28	00:20:29
14:24:51	14:28:10	00:03:19
15:58:54	16:12:20	00:13:26
17:20:35	17:29:01	00:08:26
17:30:00	17:30:21	00:00:21
17:53:14	17:55:02	00:01:48
17:55:35	18:01:00	00:05:25
18:16:06	18:21:11	00:05:05
19:05:43	19:13:32	00:07:49

Bay 8, 9, 10 **		
Time IN	Time OUT	DURATION
13:00:21	13:03:10	00:02:49



Trethomas Parking Survey, Saturday 2nd December 2017

Saturday Average Stay	00:08:15
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Time in HH:MM:SS

Average Stay	00:11:09
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Average Stay	00:07:29
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Average Stay	00:16:53
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Average Stay	00:05:00
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Average Stay	00:07:18
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Average Stay	00:09:37
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Bay 1		
Time IN	Time OUT	DURATION
09:48:29	09:53:29	00:05:00
10:29:51	10:31:54	00:02:03
10:33:13	10:40:31	00:07:18
12:03:12	12:05:51	00:02:39
12:23:30	12:32:42	00:09:12
13:12:00	13:22:41	00:10:41
13:29:59	13:32:51	00:02:52
13:34:11	13:40:39	00:06:28
13:41:36	13:57:15	00:15:39
14:04:27	14:06:28	00:02:01
14:08:37	14:20:43	00:12:06
14:44:23	15:22:33	00:38:10
15:30:12	15:44:58	00:14:46
17:18:34	17:45:48	00:27:14

Bay 2		
Time IN	Time OUT	DURATION
10:35:50	10:39:24	00:03:34
10:46:48	10:50:56	00:04:08
10:55:36	11:00:54	00:05:18
11:05:01	11:08:57	00:03:56
11:15:27	11:47:17	00:31:50
11:49:36	12:08:30	00:18:54
12:22:46	12:33:55	00:11:09
13:10:23	13:12:04	00:01:41
13:15:51	13:21:20	00:05:29
13:34:07	13:41:14	00:07:07
13:44:15	13:49:05	00:04:50
14:04:47	14:13:04	00:08:17
14:16:37	14:18:04	00:01:27
14:18:33	14:21:06	00:02:33
14:40:30	14:45:13	00:04:43
14:45:39	14:53:21	00:07:42
16:24:46	16:30:10	00:05:24
16:36:34	16:43:36	00:07:02
19:38:25	19:45:29	00:07:04

Bay 3		
Time IN	Time OUT	DURATION
09:11:41	09:18:40	00:06:59
10:20:27	10:24:16	00:03:49
10:27:05	10:35:02	00:07:57
10:43:33	10:50:38	00:07:05
10:55:21	11:01:29	00:06:08
11:14:52	11:25:55	00:11:03
11:30:22	11:38:48	00:08:26
12:10:00	12:13:17	00:03:17
12:15:37	12:22:14	00:06:37
12:23:44	12:32:57	00:09:13
12:41:15	12:51:31	00:10:16
13:00:50	13:42:17	00:41:27
13:51:50	16:04:34	02:12:44
16:07:46	16:14:43	00:06:57
17:28:41	17:41:32	00:12:51
17:46:19	17:54:48	00:08:29
18:52:17	18:55:56	00:03:39

Bay 4		
Time IN	Time OUT	DURATION
09:05:15	09:06:56	00:01:41
09:11:02	09:14:30	00:03:28
09:41:35	09:46:18	00:04:43
09:38:49	09:48:58	00:10:09
10:35:46	10:40:08	00:04:22
11:03:54	11:08:16	00:04:22
11:29:59	11:35:40	00:05:41
11:39:40	11:42:39	00:02:59
11:44:23	11:46:25	00:02:02
11:48:30	11:49:42	00:01:12
12:02:51	12:07:33	00:04:42
12:22:25	12:26:42	00:04:17
12:45:32	12:57:23	00:11:51
13:10:46	13:15:56	00:05:10
13:40:35	13:42:57	00:02:22
13:43:07	13:45:47	00:02:40
14:47:05	14:48:45	00:01:40
16:25:24	16:27:15	00:01:51
16:30:01	16:45:35	00:15:34
17:09:15	17:13:53	00:04:38
17:57:24	18:00:13	00:02:49

Bay 5		
Time IN	Time OUT	DURATION
08:05:43	08:12:21	00:06:38
08:18:52	08:27:34	00:08:42
09:32:48	09:37:40	00:04:52
09:38:49	09:48:58	00:10:09
10:25:32	10:36:35	00:11:03
10:43:18	10:47:55	00:04:37
10:48:14	10:51:31	00:03:17
10:52:11	10:53:41	00:01:30
10:54:38	10:57:43	00:03:05
11:06:16	11:11:27	00:05:11
11:14:34	11:28:05	00:13:31
11:52:17	12:03:29	00:11:12
12:05:28	12:10:52	00:05:24
12:11:05	12:13:09	00:02:04
12:31:41	12:36:27	00:04:46
12:36:46	12:45:59	00:09:13
13:07:21	13:18:07	00:10:46
13:19:08	13:32:03	00:12:55
13:32:22	13:42:05	00:09:43
13:49:18	13:57:38	00:08:20
13:58:32	14:07:58	00:09:26
14:08:17	14:22:43	00:14:26
14:35:44	14:46:04	00:10:20
14:50:34	14:52:17	00:01:43
15:09:09	15:13:56	00:04:47
15:14:12	15:20:10	00:05:58
15:25:27	15:30:38	00:05:11
15:51:30	15:59:38	00:08:08
16:00:24	16:29:10	00:28:46
17:44:11	17:48:07	00:03:56
18:38:23	18:43:21	00:04:58
18:49:01	18:53:16	00:04:15
19:18:08	19:18:54	00:00:46
19:20:22	19:22:59	00:02:37
19:25:50	19:28:51	00:03:01

Bay 6		
Time IN	Time OUT	DURATION
09:09:55	09:16:08	00:06:13
09:58:26	10:06:26	00:08:00
10:15:51	10:22:42	00:06:51
10:36:11	10:41:47	00:05:36
10:43:58	10:49:27	00:05:29
10:50:28	11:10:57	00:20:29
11:19:49	11:31:09	00:11:20
11:36:41	12:12:43	00:36:02
12:15:28	12:30:52	00:15:24
12:46:27	12:52:19	00:05:52
12:53:26	12:59:49	00:06:23
13:36:02	13:40:13	00:04:11
13:42:39	13:46:25	00:03:46
13:46:31	13:50:01	00:03:30
14:18:41	14:25:43	00:07:02
14:28:15	14:31:22	00:03:07
14:31:37	14:51:28	00:19:51
14:56:33	14:58:46	00:02:13
15:04:22	15:30:12	00:25:50
15:35:50	15:45:33	00:09:43
16:36:02	16:43:23	00:07:21
17:20:25	17:32:34	00:12:09
17:58:26	18:07:18	00:08:52
18:12:43	18:16:15	00:03:32
18:23:22	18:27:51	00:04:29
18:47:12	18:53:53	00:06:41
19:44:32	In at End	-

Time IN
In at Start
11:51:00
12:06:22
12:13:03
12:22:24
12:27:00
12:34:41
12:39:27
12:50:49
13:03:26
13:14:25
13:17:43
13:29:41
14:03:50
14:22:57
14:27:59
14:34:51
14:43:58
15:09:53
15:30:53
15:49:12
16:18:02
16:40:26
16:51:41
17:08:05
17:12:31
17:16:34
17:20:54
17:30:11
17:43:43
17:52:14
18:13:28
18:22:38
18:32:47
18:38:08
18:54:58
19:01:29
19:13:54
19:20:09

Average Stay	00:07:19
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Bay 7	
Time OUT	DURATION
11:46:07	-
12:05:36	00:14:36
12:10:25	00:04:03
12:18:47	00:05:44
12:26:18	00:03:54
12:31:44	00:04:44
12:37:02	00:02:21
12:46:55	00:07:28
12:54:56	00:04:07
13:12:00	00:08:34
13:17:15	00:02:50
13:24:15	00:06:32
14:02:42	00:03:01
14:21:58	00:18:08
14:25:22	00:02:25
14:32:41	00:04:42
14:41:01	00:06:10
14:50:57	00:06:59
15:28:12	00:18:19
15:35:37	00:04:44
16:09:30	00:20:18
16:44:15	00:26:13
16:41:40	00:01:14
16:54:47	00:03:06
17:11:17	00:05:12
17:15:03	00:02:32
17:20:33	00:03:59
17:24:15	00:03:21
17:34:49	00:04:38
17:48:24	00:04:51
17:57:50	00:05:36
18:19:20	00:05:52
18:27:35	00:04:57
18:34:42	00:01:55
18:43:48	00:05:40
18:58:12	00:03:14
19:05:30	00:04:01
19:19:07	00:05:13
19:27:12	00:07:03

Average Stay	00:26:20
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Bay 8		
Time IN	Time OUT	DURATION
10:50:17	10:54:22	00:04:05
11:06:17	11:10:05	00:03:48
11:22:30	11:27:29	00:04:59
11:28:02	16:33:02	05:05:00
13:18:55	13:28:05	00:09:10
16:39:47	16:40:35	00:00:48
17:05:13	17:13:33	00:08:20
17:31:35	17:37:34	00:05:59
17:38:47	17:38:47	00:02:00
17:42:13	17:45:36	00:03:23
18:36:57	18:40:09	00:03:12
18:47:27	18:56:06	00:08:39
19:04:14	19:05:47	00:01:33
19:14:02	19:21:46	00:07:44
19:53:33	In at End	-

Average Stay	00:07:07
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Bay 9		
Time IN	Time OUT	DURATION
09:09:02	09:15:13	00:06:11
10:20:11	10:23:17	00:03:06
10:36:13	10:40:06	00:03:53
10:43:14	10:48:47	00:05:33
13:47:40	13:52:20	00:04:40
13:53:12	13:55:40	00:02:28
13:56:52	13:59:44	00:02:52
14:02:37	14:09:42	00:07:05
14:12:19	14:14:35	00:02:16
14:14:58	14:19:27	00:04:29
14:22:28	14:26:18	00:03:50
14:27:54	14:32:25	00:04:31
14:33:39	14:49:25	00:15:46
14:50:12	14:56:11	00:05:59
14:58:12	15:01:31	00:03:19
15:05:04	15:10:28	00:05:24
15:16:27	15:17:15	00:00:48
15:20:01	15:33:27	00:13:26
15:45:33	15:53:03	00:07:30
15:45:35	15:53:09	00:07:34
15:55:48	15:58:24	00:02:36
16:01:23	16:07:46	00:06:23
16:13:31	16:16:47	00:03:16
16:17:45	16:30:46	00:13:01
16:35:13	16:12:22	01:37:09
16:40:51	16:43:32	00:02:41
16:50:38	16:57:53	00:07:15
16:58:45	17:01:10	00:02:25
17:03:30	17:07:40	00:04:10
17:08:22	17:13:08	00:04:46
17:15:15	17:21:11	00:05:56
17:24:16	17:26:33	00:02:17
17:27:42	17:33:10	00:05:28
17:45:01	17:51:54	00:06:53
17:52:04	17:55:09	00:03:05
17:55:55	17:59:51	00:03:56
18:07:44	18:14:16	00:06:32
18:09:22	18:12:22	00:03:00
18:22:37	18:25:25	00:02:48
18:28:59	18:39:11	00:10:12
18:51:14	18:55:37	00:04:23
19:00:54	19:03:34	00:02:40
19:08:04	19:12:00	00:03:56
19:13:08	19:18:44	00:05:36
19:19:02	19:22:20	00:03:18
19:52:00	In at End	-

Average Stay	00:05:05
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Bay 10		
Time IN	Time OUT	DURATION
08:04:39	08:26:08	00:21:29
08:48:17	08:52:02	00:03:45
08:55:49	13:14:34	04:18:45
10:11:46	10:12:58	00:01:12
13:14:47	13:18:01	00:03:14
13:29:12	13:47:18	00:18:06
13:49:17	In at End	-

Average Stay	00:06:29
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Bay 11		
Time IN	Time OUT	DURATION
08:22:58	08:32:39	00:09:41
08:42:06	08:43:44	00:01:38
08:47:58	08:49:48	00:01:50
08:57:58	08:59:24	00:01:26
08:59:56	09:11:24	00:11:28
09:32:31	09:40:41	00:08:10
09:40:56	09:43:23	00:02:27
09:48:15	10:12:58	00:24:43
10:13:59	10:18:05	00:04:06
10:19:06	10:31:14	00:12:08
10:33:12	10:37:28	00:04:16
10:38:19	10:56:49	00:18:30
10:57:52	10:59:30	00:01:38
11:02:53	11:05:33	00:02:40
11:06:15	11:07:22	00:01:07
11:08:57	11:10:38	00:01:41
11:12:30	11:17:00	00:04:30
11:22:04	11:24:20	00:02:16
11:27:55	11:29:49	00:01:54
11:30:32	11:34:53	00:04:21
11:36:11	11:44:26	00:08:15
11:45:25	11:48:54	00:03:29
11:49:14	11:51:18	00:02:04
12:01:38	12:07:12	00:05:34
12:09:15	12:12:06	00:02:51
12:14:16	12:18:55	00:04:39
12:22:39	12:27:55	00:05:16
12:28:14	12:36:55	00:08:41
12:38:38	12:43:35	00:04:57
12:44:25	12:47:57	00:03:32
12:51:06	13:00:53	00:09:47
13:05:26	13:12:21	00:06:55
13:12:35	13:17:52	00:05:17
13:17:57	13:26:17	00:08:20
13:29:14	13:31:41	00:02:27
13:31:51	13:34:05	00:02:14
13:34:15	13:39:26	00:05:11
13:40:14	13:49:05	00:08:51
13:50:09	14:20:17	00:30:08
14:20:18	14:24:09	00:03:51
14:27:26	14:34:30	00:07:04
14:40:55	14:42:46	00:01:51
14:45:35	14:48:44	00:03:09
14:51:03	14:54:54	00:03:51
15:13:25	15:17:24	00:03:59
15:25:04	15:29:10	00:04:06
15:29:55	15:35:10	00:05:15
15:59:14	16:19:45	00:20:31
16:25:47	16:29:36	00:03:49
16:37:53	16:40:08	00:02:15
16:45:15	16:47:51	00:02:36
16:50:58	16:57:21	00:06:23
17:00:23	17:09:43	00:09:20
17:11:57	17:19:23	00:07:26
17:21:21	17:24:12	00:02:51
17:24:56	17:41:16	00:16:20
17:43:32	17:52:11	00:08:39
18:37:39	18:53:06	00:15:27
19:19:04	19:26:48	00:07:44
19:31:13	19:37:43	00:06:30
19:39:15	19:42:32	00:03:17
19:48:05	In at End	-

Average Stay	00:12:05
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Bay 12		
Time IN	Time OUT	DURATION
08:11:02	08:26:07	00:15:05
08:32:17	08:36:24	00:04:07
08:50:13	08:52:43	00:02:30
08:55:02	09:00:34	00:05:32
09:07:46	09:10:20	00:02:34
09:11:30	09:11:51	00:00:21
09:13:01	09:20:26	00:07:25
09:36:50	09:41:57	00:05:07
09:45:11	09:45:53	00:00:42
09:46:09	09:56:15	00:10:06
10:05:48	14:20:01	04:14:13
14:24:31	14:26:02	00:01:31
14:35:10	14:38:32	00:03:22
14:39:48	14:41:50	00:02:02
14:44:07	14:52:31	00:08:24
14:56:49	14:59:56	00:03:07
15:02:28	15:12:02	00:09:34
15:14:50	15:36:46	00:21:56
15:44:32	15:49:36	00:05:04
15:51:12	15:59:16	00:08:04
16:04:19	16:32:13	00:27:54
16:36:37	16:42:03	00:05:26
16:48:00	16:49:52	00:01:52
16:54:24	17:00:21	00:05:57
17:04:01	17:09:16	00:05:15
17:10:05	17:17:44	00:07:39
17:18:04	17:23:07	00:05:03
17:38:10	17:45:56	00:07:46
17:46:16	17:49:35	00:03:19
17:52:00	18:02:03	00:10:03
18:02:27	18:08:54	00:06:27
18:10:07	18:13:15	00:03:08
18:13:52	18:17:38	00:03:46
18:17:43	18:20:49	00:03:06
18:21:25	18:27:18	00:05:53
18:28:54	18:39:31	00:10:37
18:45:16	18:51:15	00:05:59
18:51:40	18:53:08	00:01:28
19:01:17	19:05:26	00:04:09
19:10:12	19:22:45	00:12:33
19:38:41	19:42:20	00:03:39
19:46:14	19:49:42	00:03:28
19:51:35	19:56:12	00:04:37
19:57:47	In at End	-

Average Stay	
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Bay 13	
Time IN	Time OUT
08:17:26	08:51:32
08:57:02	09:30:00
09:31:44	09:32:02
09:42:15	09:48:13
09:48:54	09:50:52
09:52:20	10:01:28
10:04:40	10:10:42
10:11:58	10:13:36
10:19:36	10:23:20
10:25:24	10:33:44
10:35:52	10:38:18
10:40:18	10:41:19
10:43:14	10:50:22
10:50:46	10:58:33
11:01:56	11:02:30
11:03:27	11:07:38
11:12:51	11:13:46
11:14:34	11:18:09
11:21:54	11:24:45
11:25:27	11:29:54
11:29:21	11:33:50
11:34:36	11:36:16
11:38:20	11:42:07
11:44:18	11:44:48
11:45:32	11:51:29
11:59:32	12:20:13
12:20:44	12:26:35
12:26:44	12:30:34
12:30:44	12:41:08
12:42:22	12:48:40
12:46:57	12:48:52
12:49:52	12:56:32
12:57:53	13:03:16
13:08:46	13:14:16
13:15:03	13:15:44
13:15:53	13:25:17
13:25:50	13:26:36
13:28:47	13:33:28
13:34:30	13:48:31
13:49:15	13:53:12
13:53:37	13:55:23
13:55:39	14:06:54
14:07:15	14:12:19
14:12:38	14:21:48
14:22:56	14:34:09
14:34:37	14:48:24
14:49:12	14:51:53
15:06:43	15:17:19
15:29:45	15:36:08
15:49:34	15:50:36
15:51:36	15:56:39
16:00:53	16:03:06
16:15:02	16:19:14
16:21:51	16:26:30
16:32:55	16:36:17
16:39:59	16:43:26
16:47:29	16:49:02
16:56:11	16:57:32
17:08:37	17:19:14
17:23:37	17:37:47
17:40:31	17:48:52
17:52:12	17:54:40
17:55:18	17:58:42
18:01:56	18:07:07
18:08:33	18:11:14
18:12:13	18:17:58
18:18:16	18:23:42
18:24:12	18:26:39
18:28:17	18:32:41
18:34:22	18:39:17
18:41:51	18:45:26
18:47:49	18:49:36
18:51:15	18:55:23
18:55:38	18:59:28
19:23:15	19:28:23

00:05:52

Average Stay	00:02:29
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DURATION
00:34:06
00:32:58
00:00:18
00:05:58
00:01:58
00:09:08
00:06:02
00:01:38
00:03:44
00:08:20
00:02:26
00:01:01
00:07:08
00:07:42
00:00:34
00:04:11
00:00:55
00:03:35
00:02:51
00:02:33
00:04:29
00:01:40
00:03:47
00:00:30
00:05:17
00:20:41
00:05:51
00:03:50
00:04:18
00:01:55
00:06:40
00:05:23
00:05:30
00:00:41
00:09:24
00:00:46
00:01:40
00:03:57
00:01:46
00:11:15
00:05:04
00:09:10
00:11:13
00:13:47
00:02:41
00:10:36
00:06:23
00:01:02
00:05:03
00:02:13
00:04:12
00:04:39
00:03:22
00:03:27
00:01:33
00:01:21
00:10:37
00:14:10
00:08:21
00:02:28
00:03:24
00:05:11
00:02:41
00:05:45
00:03:36
00:02:47
00:04:08
00:03:50
00:05:08

Bay 14		
Time IN	Time OUT	DURATION
In at Start	12:12:03	-
12:15:12	12:32:02	00:16:50
12:36:30	12:40:46	00:04:16
12:43:19	12:47:25	00:04:06
12:47:52	12:49:20	00:01:28
12:50:57	12:54:13	00:03:16
12:55:15	12:55:43	00:00:28
13:04:22	13:20:20	00:15:58
13:22:33	13:27:14	00:04:41
13:31:24	13:31:58	00:00:34
13:32:10	13:35:29	00:03:19
13:36:08	13:38:16	00:02:08
13:38:33	16:37:11	02:58:38
16:37:42	16:38:50	00:01:08
16:50:32	16:55:23	00:04:51
16:59:01	17:03:37	00:04:36
17:24:35	17:34:54	00:10:19
17:35:15	17:38:45	00:03:30
17:49:14	17:54:50	00:05:36
17:57:18	18:01:43	00:04:25
18:08:11	18:17:51	00:09:40
18:21:18	18:39:43	00:18:25
18:43:50	18:54:46	00:10:56
18:56:24	18:57:49	00:01:25
19:05:17	19:05:00	00:00:43
19:07:56	19:28:40	00:20:44
19:39:35	19:41:31	00:01:56
19:46:22	19:53:36	00:07:14
19:54:43	19:56:53	00:02:10

Bay 15		
Time IN	Time OUT	DURATION
15:10:09	15:22:39	00:12:30
15:23:51	15:26:45	00:02:54
15:27:25	15:32:21	00:04:56
15:32:44	15:40:55	00:08:11
15:48:10	15:52:49	00:04:39
15:53:11	15:59:49	00:06:38
16:02:38	16:05:53	00:03:15
16:08:50	16:10:17	00:01:27
16:11:39	16:16:51	00:05:12
16:17:02	16:20:05	00:03:03
16:20:22	16:24:53	00:04:31
16:25:49	16:26:15	00:00:26
16:26:20	16:30:33	00:04:13
16:30:48	16:42:05	00:11:17
16:51:38	16:56:46	00:05:08
17:03:29	17:09:12	00:05:43
17:12:44	17:15:01	00:02:17
17:18:20	17:21:42	00:03:22
17:29:28	17:32:34	00:03:06
17:33:10	17:37:28	00:04:18
18:03:37	18:10:31	00:06:54
18:11:01	18:25:52	00:14:51
18:26:08	18:29:03	00:01:55
18:28:30	18:34:35	00:06:05
18:36:43	18:41:43	00:05:00
18:43:54	18:51:45	00:07:51
18:52:46	19:03:10	00:10:24
19:04:05	19:06:21	00:02:16
19:06:59	19:22:44	00:15:45
19:26:05	19:27:57	00:01:52
19:37:37	19:49:38	00:12:01
19:54:29	19:55:07	00:00:38

Bay 16		
Time IN	Time OUT	DURATION
08:00:24	08:01:14	00:00:50
08:01:58	08:07:10	00:05:12
08:26:02	08:27:07	00:01:05
08:30:25	08:32:45	00:02:20
08:52:28	08:53:42	00:01:14
08:57:45	09:00:12	00:02:27
09:15:19	09:15:34	00:00:15
09:16:20	09:17:57	00:01:37
09:41:43	09:51:59	00:10:16
09:53:30	09:57:56	00:04:26
10:05:09	10:08:09	00:03:00
10:10:31	10:14:08	00:03:37
10:17:44	10:18:16	00:00:32
10:18:36	10:21:48	00:03:12
10:27:06	10:29:04	00:01:58
10:30:10	10:30:46	00:00:36
10:30:58	10:33:13	00:02:15
10:33:58	10:49:45	00:15:47
10:50:05	10:56:16	00:06:11
10:58:23	10:59:19	00:00:56
11:02:04	11:04:22	00:02:18
11:05:25	11:17:47	00:12:22
11:25:58	11:29:25	00:03:27
11:29:47	11:32:36	00:02:49
11:34:20	11:34:45	00:00:25
11:37:05	11:41:03	00:03:58
11:41:19	11:47:09	00:05:50
11:51:43	11:51:48	00:00:05
11:54:14	11:55:14	00:01:00
11:57:26	12:00:39	00:03:13
12:02:16	12:24:56	00:22:40
12:25:18	12:37:40	00:12:22
12:40:06	12:49:33	00:09:27
12:51:42	12:55:02	00:03:20
13:03:46	13:05:16	00:01:30
13:09:13	13:15:57	00:06:44
13:16:24	13:21:28	00:05:04
13:21:46	13:30:48	00:09:02
13:30:57	13:36:04	00:05:07
13:36:19	13:39:46	00:03:27
13:40:49	13:47:54	00:07:05
13:46:45	13:50:17	00:03:32
13:50:28	13:55:43	00:05:15
13:56:01	13:59:58	00:03:57
14:02:06	14:04:40	00:02:34
14:06:53	14:06:16	00:01:23
14:06:55	14:09:41	00:02:46
14:11:27	14:19:02	00:07:35
14:19:19	14:26:10	00:06:51
14:26:25	14:29:11	00:02:46
14:30:59	14:37:52	00:06:53
14:38:01	14:43:18	00:05:17
14:44:29	14:52:45	00:08:16
14:54:24	14:59:01	00:04:37
15:00:46	15:01:45	00:00:59
15:03:12	15:12:51	00:09:39
15:17:55	15:28:45	00:10:50
15:29:17	15:41:04	00:11:47
15:48:24	15:54:12	00:05:48
15:55:45	15:58:57	00:03:12
16:11:04	16:16:21	00:04:17
16:22:03	16:24:06	00:02:03
16:26:17	16:31:32	00:05:15
16:34:36	16:42:50	00:08:14
16:44:10	16:52:47	00:08:37
16:54:34	16:56:53	00:04:19
16:59:52	17:04:36	00:04:44
17:05:00	17:12:00	00:07:00
17:13:33	17:18:27	00:04:54
17:23:45	17:28:25	00:04:40
17:42:35	17:47:01	00:04:26
17:47:14	17:50:16	00:03:02
17:52:22	17:54:24	00:02:02
17:58:15	18:00:38	00:02:23
18:09:53	18:18:44	00:08:51
18:21:08	18:22:28	00:01:20
18:22:54	18:25:35	00:02:41
18:28:37	18:36:20	00:07:43
18:37:59	18:41:34	00:03:35
18:44:37	18:47:17	00:02:40
18:49:10	18:57:19	00:08:09
18:58:55	19:10:01	00:11:06
19:13:16	19:21:31	00:08:15
19:22:02	19:25:31	00:03:29
19:45:25	19:48:36	00:03:11
19:56:04	In at End	-

Average Stay	00:04:57
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Bay 17		
Time IN	Time OUT	DURATION
08:34:02	08:41:21	00:07:19
08:49:24	08:57:37	00:08:13
10:07:50	10:08:57	00:01:07
10:15:07	10:16:47	00:01:40
10:20:13	10:23:29	00:03:16
10:36:25	10:37:30	00:01:05
10:40:21	10:55:53	00:15:32
11:05:53	11:16:31	00:10:38
11:17:13	11:18:12	00:00:59
11:31:25	11:36:40	00:05:15
11:40:53	11:42:02	00:01:09
11:42:51	11:47:42	00:04:51
12:00:21	12:00:53	00:00:32
12:06:14	12:09:09	00:02:55
12:12:00	12:14:15	00:02:15
12:26:23	12:30:04	00:03:41
12:31:37	12:38:18	00:06:41
12:46:17	12:51:25	00:05:08
12:52:09	12:58:29	00:06:20
13:14:44	13:20:45	00:06:01
13:30:35	13:36:56	00:06:21
13:38:23	13:50:10	00:11:47
13:51:33	13:57:46	00:06:13
14:04:23	14:10:39	00:06:16
14:14:47	14:20:14	00:05:27
14:27:30	14:33:29	00:05:59
14:36:16	14:37:32	00:01:16
14:53:52	14:55:42	00:01:50
15:22:39	15:26:38	00:03:59
15:33:38	15:37:25	00:03:47
15:51:53	15:59:25	00:07:32
16:04:53	16:14:25	00:09:32
16:26:01	16:31:06	00:05:05
16:36:10	16:40:22	00:04:12
16:47:49	16:50:35	00:02:46
17:05:38	17:21:01	00:15:23
17:29:43	17:41:16	00:11:33
17:58:31	18:00:19	00:01:48
18:16:28	18:22:06	00:05:38
18:22:21	18:39:23	00:17:02
18:49:32	18:51:03	00:01:31
18:51:25	18:54:31	00:03:06
19:17:05	19:22:58	00:05:53

Average Stay	00:05:33
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Bay 18		
Time IN	Time OUT	DURATION
08:04:42	08:11:49	00:07:07
08:13:30	08:25:16	00:11:46
08:44:56	08:48:04	00:03:08
09:07:40	09:38:54	00:31:14
10:21:42	10:48:04	00:26:22
10:48:33	10:57:22	00:08:49
11:07:23	11:13:34	00:06:11
11:24:45	11:25:16	00:00:31
11:27:31	11:40:25	00:12:54
11:41:49	11:42:27	00:00:38
11:45:56	12:07:19	00:21:23
12:15:33	12:17:49	00:02:16
12:21:31	12:24:27	00:02:56
12:31:56	12:33:49	00:01:53
13:15:49	13:20:31	00:04:42
13:26:02	13:26:58	00:00:56
13:41:19	13:43:14	00:01:55
13:45:48	13:48:37	00:02:49
13:57:02	14:05:00	00:07:58
14:05:48	14:13:35	00:07:47
14:33:18	14:35:31	00:02:13
14:38:06	14:42:07	00:04:01
14:46:14	14:58:17	00:12:03
15:10:30	15:15:30	00:05:00
15:15:48	15:18:06	00:02:18
15:26:23	15:31:03	00:04:40
15:49:05	15:52:38	00:03:33
15:57:11	16:06:31	00:09:20
16:39:13	16:44:16	00:05:03
17:21:44	17:29:00	00:07:16
17:36:32	17:38:13	00:01:41
17:44:16	17:45:46	00:01:30
18:24:17	18:26:11	00:01:54
18:32:05	18:36:11	00:04:06
18:52:56	19:00:16	00:07:20

Average Stay	00:06:43
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Bay 19		
Time IN	Time OUT	DURATION
10:08:40	10:12:56	00:04:16
11:31:22	11:43:37	00:12:15
11:48:13	11:53:29	00:05:16
12:47:19	13:03:41	00:16:22
13:32:30	13:39:50	00:07:20
13:42:57	13:54:20	00:11:23
14:15:02	14:21:42	00:06:40
14:51:49	15:08:40	00:16:51
17:08:04	17:10:50	00:02:46

Average Stay	00:09:14
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Sunday Average Stay	00:06:33
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Time in HH:MM:SS

Average Stay	00:14:13
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Average Stay	00:08:30
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Average Stay	00:07:26
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Average Stay	00:05:38
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Average Stay	00:05:50
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Average Stay	00:06:31
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Bay 1		
Time IN	Time OUT	DURATION
13:27:41	13:32:50	00:05:09
14:29:12	15:42:55	01:13:43
16:14:17	16:20:00	00:05:43
16:27:29	16:31:13	00:03:44
16:55:57	17:02:22	00:06:25
18:19:18	18:27:46	00:08:28
18:34:41	18:38:18	00:03:37
18:40:42	18:47:38	00:06:56
18:51:21	In at End	-

Bay 2		
Time IN	Time OUT	DURATION
13:03:11	13:06:59	00:03:48
13:24:50	13:34:18	00:09:28
16:31:51	16:35:43	00:03:52
16:40:07	16:47:31	00:07:24
17:00:08	17:09:13	00:09:05
17:35:55	17:45:23	00:09:28
18:26:08	18:29:14	00:03:06
18:37:32	18:56:43	00:19:11
19:16:46	19:27:54	00:11:08

Bay 3		
Time IN	Time OUT	DURATION
10:36:49	10:40:07	00:03:18
11:09:25	11:18:22	00:08:57
11:48:02	12:05:06	00:17:04
12:41:49	12:48:00	00:06:11
12:57:50	13:00:01	00:02:11
13:22:57	13:35:26	00:12:29
13:44:38	13:54:00	00:09:22
14:28:00	14:35:11	00:07:11
14:35:48	14:41:04	00:05:16
15:17:18	15:21:16	00:03:58
15:53:07	15:56:56	00:03:49
16:12:45	16:23:44	00:10:59
16:24:00	16:29:32	00:05:32
16:39:33	16:40:58	00:01:25
16:43:38	16:49:04	00:05:26
16:50:20	17:02:45	00:12:25
17:15:07	17:22:14	00:07:07
17:22:25	17:28:02	00:05:37
17:34:54	17:40:22	00:05:28
17:40:36	17:47:16	00:06:40
17:47:53	17:52:30	00:04:37
18:00:20	18:11:26	00:11:06
18:14:20	18:21:59	00:07:39
18:32:14	18:37:43	00:05:29
18:45:17	19:02:03	00:16:46

Bay 4		
Time IN	Time OUT	DURATION
10:35:52	10:41:28	00:05:36
11:22:55	11:26:22	00:03:27
12:22:48	12:27:02	00:04:14
13:24:22	13:26:26	00:02:04
15:37:55	15:42:17	00:04:22
16:15:11	16:24:33	00:09:22
16:26:34	16:34:00	00:07:26
16:53:57	17:02:22	00:08:25
17:05:54	17:09:38	00:03:44
17:14:44	17:18:32	00:03:48
17:32:14	17:34:25	00:02:11
17:34:48	17:39:23	00:04:35
17:39:38	17:44:16	00:04:38
17:47:45	17:51:33	00:03:48
17:56:42	18:01:30	00:04:48
18:04:27	18:19:48	00:15:21
18:23:25	18:29:27	00:06:02
18:38:42	18:43:49	00:05:07
19:07:58	19:17:09	00:09:11
19:21:50	19:26:30	00:04:40

Bay 5		
Time IN	Time OUT	DURATION
09:06:50	09:11:59	00:05:09
09:53:23	09:56:36	00:03:13
10:02:54	10:07:09	00:04:15
11:49:36	11:50:16	00:00:40
12:39:08	12:43:10	00:04:02
12:45:58	12:47:42	00:01:44
12:57:29	13:04:30	00:07:01
13:05:18	13:09:18	00:04:00
13:11:23	13:13:51	00:02:28
13:18:21	13:23:56	00:05:35
13:44:14	13:52:15	00:08:01
14:24:22	14:30:17	00:05:55
14:40:39	14:41:20	00:00:41
15:11:19	15:17:46	00:06:27
15:35:32	15:41:57	00:06:25
15:44:37	15:58:10	00:13:33
15:59:59	16:04:16	00:04:17
16:06:13	16:15:53	00:09:40
16:16:06	16:21:13	00:05:07
16:22:41	16:30:33	00:07:52
16:34:15	16:39:25	00:05:10
16:39:26	16:53:26	00:14:00
17:20:25	17:27:06	00:06:41
17:44:28	17:47:22	00:02:54
18:08:46	18:11:36	00:02:50
18:28:38	18:29:49	00:01:11
18:31:21	18:44:58	00:13:37
18:46:25	18:49:23	00:02:58
18:59:01	19:09:56	00:10:55
19:10:46	19:18:38	00:07:52
19:21:25	19:28:56	00:07:31
19:59:59	In at End	-

Bay 6		
Time IN	Time OUT	DURATION
09:12:36	09:31:00	00:18:24
09:48:01	09:55:25	00:07:24
10:36:42	10:39:15	00:02:33
11:15:50	11:25:51	00:10:01
13:24:07	13:27:54	00:03:47
13:50:49	14:02:36	00:11:47
14:39:24	14:51:05	00:11:41
16:31:19	16:38:13	00:06:54
16:53:53	17:00:57	00:07:04
17:02:00	17:03:09	00:01:09
17:03:27	17:07:38	00:04:11
17:12:01	17:31:09	00:19:08
17:31:27	17:35:49	00:04:22
17:36:33	17:37:49	00:01:16
17:39:09	17:45:19	00:06:10
17:45:44	17:49:36	00:03:52
17:50:21	17:52:46	00:02:25
17:56:15	18:01:49	00:05:34
18:03:42	18:05:58	00:02:16
18:06:11	18:10:39	00:04:28
18:11:08	18:22:16	00:11:08
18:23:14	18:26:18	00:03:04
18:50:54	18:54:09	00:03:15
19:44:33	19:49:08	00:04:35

Time IN
09:06:35
09:31:39
10:33:01
10:41:36
11:22:10
11:47:31
14:07:21
14:17:34
14:35:05
15:01:18
15:11:09
15:14:24
15:16:00
15:28:17
15:46:20
16:22:13
16:30:03
16:38:54
16:44:12
16:52:56
16:54:49
17:08:02
17:20:15
17:29:29
17:38:46
17:42:26
17:46:07
17:48:59
18:05:22
18:18:54
18:30:02
18:34:01
18:42:55
18:56:00
18:58:53
19:03:56
19:11:22
19:27:15
19:34:46
19:43:43
19:54:34

Average Stay	00:09:46
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Average Stay	00:06:20
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Average Stay	00:05:48
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Average Stay	00:06:40
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Average Stay	00:06:15
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Average Stay	00:05:19
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Average Stay	
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Bay 7	
Time OUT	DURATION
09:09:12	00:02:37
09:37:03	00:05:24
10:39:51	00:06:50
10:48:17	00:06:41
11:30:01	00:07:51
13:52:34	02:05:03
14:13:48	00:06:27
14:36:36	00:09:02
14:40:20	00:05:15
15:04:18	00:03:00
15:13:54	00:02:45
15:14:59	00:00:35
15:22:53	00:06:53
15:46:12	00:17:55
16:21:33	00:35:13
16:29:48	00:07:35
16:36:33	00:06:30
16:43:38	00:04:44
16:48:00	00:03:48
16:54:37	00:01:41
17:01:15	00:06:26
17:12:23	00:04:21
17:26:01	00:05:46
17:37:25	00:07:56
17:42:13	00:03:27
17:45:49	00:03:23
17:48:45	00:02:38
18:05:05	00:16:06
18:13:44	00:08:22
18:27:44	00:08:50
18:33:21	00:03:19
18:42:12	00:08:11
18:46:50	00:03:55
18:58:23	00:02:23
19:03:23	00:04:30
19:10:51	00:06:55
19:22:19	00:10:57
19:31:52	00:04:37
19:41:42	00:05:56
19:49:40	00:05:57
In at End	-

Bay 8		
Time IN	Time OUT	DURATION
In at Start	08:08:48	-
09:02:12	09:05:35	00:03:23
11:20:57	11:28:41	00:07:44
12:58:00	13:00:03	00:02:03
16:26:25	16:42:31	00:16:06
16:45:38	16:56:41	00:11:03
16:56:56	16:57:14	00:00:18
16:57:40	17:05:32	00:07:52
17:04:31	17:07:29	00:02:52
17:14:27	17:17:58	00:03:31
17:18:39	17:27:46	00:09:07
17:57:49	18:06:37	00:08:48
19:07:55	19:10:14	00:02:19
19:47:41	19:54:56	00:07:15

Bay 9		
Time IN	Time OUT	DURATION
09:22:58	09:29:18	00:06:20
10:29:43	10:43:12	00:13:29
11:18:09	11:23:55	00:05:46
11:31:01	11:34:17	00:03:16
11:45:03	11:46:42	00:01:39
11:46:53	11:51:06	00:04:13
11:58:36	12:02:38	00:04:02
12:06:56	12:13:49	00:06:53
13:00:46	13:06:07	00:05:21
13:08:19	13:12:21	00:04:02
13:18:36	13:25:56	00:07:20
13:26:10	13:36:50	00:10:40
14:02:57	14:13:22	00:10:25
14:42:12	14:46:25	00:04:13
15:09:33	15:16:52	00:07:19
15:43:50	15:48:11	00:04:21
15:57:08	16:01:37	00:04:29
16:08:48	16:11:59	00:03:11
16:13:09	16:14:29	00:01:20
16:15:40	16:21:50	00:06:10
16:22:54	16:26:01	00:02:07
16:42:10	16:50:46	00:08:36
16:52:24	16:54:51	00:02:27
16:55:16	17:03:34	00:08:18
17:06:34	17:09:29	00:02:55
17:28:36	17:38:03	00:09:27
17:39:25	17:48:25	00:09:00
17:49:40	17:55:27	00:05:47
18:07:59	18:12:31	00:04:32
18:14:41	18:27:04	00:12:23
18:27:28	18:31:20	00:03:52
18:34:17	18:42:30	00:08:13
18:43:07	18:53:59	00:10:52
18:58:15	18:59:20	00:01:05
19:14:09	19:20:58	00:06:49
19:24:19	19:26:09	00:01:50
19:46:49	19:50:47	00:03:58
19:56:21	19:59:59	00:03:38

Bay 10		
Time IN	Time OUT	DURATION
10:09:18	10:11:56	00:02:38
10:17:52	10:22:40	00:04:48
13:56:50	14:00:02	00:03:12
14:13:39	14:25:39	00:12:00
14:26:30	14:28:38	00:02:08
14:59:19	15:01:32	00:02:13
15:32:14	15:36:18	00:04:04
15:50:37	15:54:56	00:04:19
16:03:00	16:12:47	00:09:47
16:14:09	16:15:33	00:01:24
16:15:53	16:25:53	00:10:00
16:26:17	16:30:02	00:03:45
16:31:42	16:36:54	00:05:12
16:37:16	16:40:13	00:02:57
17:04:04	17:16:23	00:12:19
17:16:59	17:19:42	00:02:43
17:20:03	17:33:57	00:13:54
17:34:16	17:43:05	00:08:49
17:43:24	18:01:12	00:17:48
18:02:02	18:09:54	00:07:52
18:10:13	18:17:28	00:07:15
18:17:49	18:23:35	00:05:46
18:24:48	18:29:13	00:04:25
18:32:03	18:39:32	00:07:29
18:39:51	18:47:03	00:07:12
18:53:18	19:00:57	00:07:39
19:03:17	19:21:54	00:18:37
19:23:19	19:27:57	00:04:38
19:29:44	19:32:53	00:03:09
19:38:32	19:44:47	00:06:15
19:54:09	19:56:46	00:02:37
19:59:53	In at End	-

Bay 11		
Time IN	Time OUT	DURATION
In at Start	08:03:06	-
08:26:56	08:42:55	00:15:59
08:54:26	08:56:45	00:02:19
09:01:17	09:07:23	00:06:06
09:11:24	09:16:10	00:04:46
09:30:04	09:33:48	00:03:44
10:03:03	10:05:35	00:02:32
10:26:03	10:34:42	00:08:40
10:34:48	10:36:43	00:01:55
10:39:26	10:40:50	00:01:24
10:41:10	10:45:07	00:03:57
10:56:26	10:59:38	00:03:12
10:59:57	11:01:48	00:01:51
11:08:32	11:10:55	00:02:23
11:15:19	11:21:26	00:06:07
11:23:21	11:28:31	00:05:10
11:38:33	11:50:55	00:12:22
11:51:45	12:06:07	00:14:22
12:13:25	12:16:16	00:02:51
12:18:06	12:25:35	00:07:29
12:25:35	12:30:13	00:04:38
12:40:40	12:42:58	00:02:18
12:56:59	13:05:31	00:08:32
13:06:32	13:12:23	00:05:51
13:15:47	13:19:17	00:03:30
13:20:05	13:35:44	00:15:39
13:38:47	13:47:06	00:08:19
13:48:41	13:55:19	00:06:38
14:01:52	14:08:38	00:06:46
14:27:59	14:36:52	00:08:53
14:38:37	14:41:56	00:03:19
14:57:07	15:02:34	00:05:27
15:16:21	15:18:39	00:02:18
15:21:31	15:24:09	00:02:38
15:24:27	15:35:12	00:10:45
15:36:18	15:38:54	00:02:36
15:42:32	15:45:16	00:02:44
16:04:25	16:14:55	00:10:30
16:22:05	16:26:15	00:04:10
16:26:37	16:30:34	00:03:57
16:31:19	16:34:52	00:03:33
16:36:16	16:58:50	00:22:34
16:59:07	17:04:11	00:05:04
17:17:40	17:24:33	00:06:53
17:27:35	17:29:49	00:02:14
17:35:59	17:46:51	00:10:52
17:47:00	17:52:12	00:05:12
17:53:32	18:00:35	00:07:03
18:00:48	18:03:12	00:02:24
18:04:31	18:22:26	00:17:55
18:22:45	18:24:46	00:02:01
18:25:58	18:32:00	00:06:02
18:32:38	18:39:36	00:06:58
18:39:59	18:43:42	00:03:43
18:43:50	18:49:04	00:05:14
18:51:58	19:02:45	00:10:47
19:41:32	19:47:35	00:06:03

Bay 12		
Time IN	Time OUT	DURATION
In at Start	08:01:53	-
08:36:53	08:42:32	00:05:39
08:45:21	08:49:27	00:04:06
09:25:26	09:29:52	00:04:26
09:59:04	10:05:52	00:06:48
10:07:07	10:10:21	00:03:14
10:12:05	10:14:11	00:02:06
10:26:03	10:28:26	00:02:23
10:32:11	10:37:13	00:05:02
10:46:16	10:49:57	00:03:41
10:50:08	10:58:12	00:08:04
11:04:18	11:05:38	00:01:20
11:06:19	11:07:37	00:01:18
11:07:45	11:13:29	00:05:44
11:25:42	11:31:33	00:05:51
11:32:09	11:35:48	00:03:39
11:36:03	11:41:56	00:05:53
11:43:14	11:48:15	00:05:01
11:51:17	11:55:19	00:04:02
11:56:25	12:00:20	00:03:55
12:01:18	12:05:46	00:04:28
12:06:03	12:10:07	00:04:04
12:11:12	12:22:20	00:11:08
12:36:08	12:40:02	00:03:54
12:45:34	12:51:18	00:05:44
12:51:51	12:55:53	00:04:02
13:05:44	13:10:22	00:04:38
13:15:42	13:21:06	00:05:24
13:22:15	13:25:55	00:03:40
13:30:15	13:36:54	00:06:39
13:40:15	13:44:40	00:04:25
13:55:46	13:57:39	00:01:53
14:01:11	14:03:32	00:02:21
14:08:44	14:10:30	00:01:46
14:12:43	14:15:41	00:02:58
14:16:08	14:20:47	00:04:39
14:22:02	14:26:31	00:04:29
14:35:14	14:39:12	00:03:58
14:42:31	14:47:07	00:04:36
14:51:08	14:53:45	00:02:37
15:07:46	15:16:04	00:08:18
15:09:45	15:24:39	00:14:54
15:25:02	15:29:08	00:04:06
15:48:21	15:54:25	00:06:04
16:01:19	16:04:24	00:03:05
16:15:10	16:21:35	00:06:25
16:27:05	16:36:32	00:09:27
16:45:54	16:50:10	00:04:16
16:49:36	17:00:53	00:11:17
17:02:44	17:06:12	00:03:28
17:14:36	17:17:12	00:02:36
17:26:52	17:32:20	00:05:28
17:32:59	17:34:36	00:01:37
17:35:44	17:38:47	00:03:03
17:38:58	17:43:35	00:04:37
17:43:45	17:44:12	00:00:27
18:09:25	18:14:53	00:05:28
18:15:00	18:20:51	00:05:51
18:21:42	18:41:05	00:19:23
18:41:31	18:45:21	00:03:50
18:45:35	18:53:43	00:08:08
18:55:17	18:58:56	00:03:39
19:00:47	19:06:49	00:06:02
19:07:01	19:12:27	00:05:26
19:12:43	19:20:16	00:07:33
19:20:33	19:44:40	00:24:07
19:45:38	19:49:13	00:03:35
19:45:59	19:56:16	00:03:17
19:57:09	In at End	-

Bay 13	
Time IN	Time OUT
In at Start	08:01:28
08:11:45	08:14:32
08:21:19	08:31:12
08:33:07	08:34:34
08:49:09	08:52:03
08:52:36	09:05:11
09:05:48	09:10:34
09:10:57	09:14:55
09:21:49	09:23:02
09:27:26	09:31:48
09:37:25	09:39:43
09:44:32	09:53:05
09:54:10	09:56:41
10:02:02	10:04:46
10:17:15	10:19:48
10:23:54	10:30:00
10:37:29	10:37:51
10:40:48	10:42:28
10:53:54	11:00:05
11:15:22	11:17:00
11:17:14	11:25:05
11:58:08	12:06:37
12:24:59	12:28:20
12:33:09	12:36:15
12:36:38	12:41:07
13:17:17	13:26:06
13:30:09	13:34:10
13:46:23	13:53:10
13:53:22	13:54:59
14:03:50	14:11:34
14:12:50	14:17:53
14:26:28	14:31:41
14:33:26	14:34:46
14:53:59	15:05:08
15:07:00	15:09:13
15:10:07	15:19:46
15:30:03	15:37:13
15:40:06	15:46:02
15:53:24	16:00:31
16:05:35	16:09:44
16:11:15	16:19:49
16:21:39	16:26:45
16:37:54	16:42:45
16:43:13	16:45:37
16:50:51	16:51:27
16:54:43	17:05:43
17:18:18	17:19:46
17:22:19	17:28:18
17:28:37	17:34:56
17:35:17	18:10:44
17:44:23	17:47:37
17:48:32	17:51:51
17:54:24	18:02:22
17:54:27	17:55:56
17:56:26	18:01:47
18:03:26	18:08:36
18:11:28	18:20:06
18:21:04	18:26:13
18:26:27	18:59:16
19:01:51	19:02:50
19:04:07	19:07:39
19:08:07	19:15:27
19:15:57	19:18:51
19:19:24	19:24:14
19:25:11	19:29:59
19:30:47	19:32:49
19:37:07	19:48:11
19:48:25	19:57:14
19:58:08	In at End

Average Stay 00:06:02

DURATION
00:02:47
00:09:53
00:01:27
00:02:54
00:12:35
00:04:46
00:03:58
00:01:13
00:04:22
00:02:18
00:08:33
00:02:31
00:02:44
00:02:33
00:06:06
00:00:22
00:01:40
00:06:11
00:01:38
00:07:51
00:08:29
00:08:16
00:03:21
00:03:06
00:04:29
00:08:49
00:04:01
00:06:47
00:01:37
00:07:44
00:05:03
00:05:13
00:01:20
00:11:09
00:02:13
00:09:39
00:07:10
00:05:56
00:07:07
00:04:09
00:09:34
00:05:06
00:04:51
00:02:24
00:00:36
00:11:00
00:10:48
00:06:59
00:06:19
00:35:27
00:03:14
00:03:19
00:00:18
00:01:39
00:05:21
00:05:10
00:08:38
00:05:09
00:32:49
00:02:59
00:03:32
00:07:20
00:02:54
00:04:50
00:04:48
00:07:02
00:10:04
00:08:49
-

Average Stay 00:06:49

Bay 14		
Time IN	Time OUT	DURATION
08:01:39	08:04:50	00:03:11
08:33:43	08:36:38	00:02:55
09:33:28	09:36:44	00:03:16
10:13:53	10:17:43	00:03:50
10:29:02	10:31:48	00:02:46
10:31:59	10:36:53	00:04:54
10:41:36	10:50:08	00:08:32
11:19:33	11:25:16	00:05:43
11:26:01	11:28:25	00:02:24
11:39:57	11:55:30	00:15:33
12:07:14	12:27:24	00:20:10
12:39:30	12:46:27	00:06:57
12:47:10	12:49:36	00:02:26
12:50:18	12:57:43	00:07:25
12:58:48	13:02:00	00:03:12
13:02:26	13:06:34	00:04:08
13:06:57	13:19:04	00:12:07
13:19:29	13:39:25	00:19:56
13:40:48	13:45:46	00:04:58
13:46:14	13:50:45	00:04:31
14:05:24	14:04:31	00:00:57
14:06:16	14:14:44	00:08:28
14:15:17	14:24:37	00:09:20
14:25:19	14:31:04	00:05:45
14:34:01	14:35:46	00:01:45
14:37:24	14:43:04	00:05:40
14:43:37	14:46:09	00:02:32
15:24:11	15:30:42	00:06:31
15:35:59	15:37:33	00:01:34
15:38:05	15:39:14	00:01:09
15:42:39	15:53:37	00:10:58
15:54:56	15:57:10	00:02:14
16:01:20	16:02:40	00:01:20
16:04:21	16:08:52	00:04:31
16:12:55	16:17:57	00:05:02
16:20:17	16:27:36	00:07:19
16:30:21	16:33:53	00:03:32
16:34:07	16:39:50	00:05:43
16:40:11	16:43:22	00:03:11
16:44:12	16:47:42	00:03:30
16:47:51	16:53:43	00:05:52
16:54:03	16:56:36	00:02:33
16:57:21	17:00:42	00:03:21
17:08:35	17:11:40	00:03:05
17:12:20	17:22:23	00:10:03
17:22:40	17:24:41	00:02:01
17:26:34	17:36:34	00:10:00
17:37:43	18:15:56	00:38:13
18:16:26	18:38:05	00:21:39
18:38:28	18:41:35	00:03:07
18:41:55	18:50:05	00:08:10
18:51:35	19:03:04	00:11:29
19:05:09	19:11:59	00:06:50
19:12:07	19:13:58	00:01:51
19:14:26	19:17:18	00:02:52
19:18:06	19:26:13	00:08:07
19:27:55	19:32:32	00:04:37
19:32:52	19:39:43	00:06:51
19:40:56	19:54:01	00:13:05
19:59:20	In at End	-

Average Stay 00:06:01

Bay 15		
Time IN	Time OUT	DURATION
15:12:43	15:18:55	00:06:12
15:20:24	15:25:27	00:05:03
15:25:38	15:34:28	00:08:50
15:34:50	15:43:24	00:08:34
15:43:33	15:46:26	00:02:53
16:00:40	16:03:19	00:02:39
16:06:06	16:17:32	00:11:26
16:18:40	16:23:44	00:05:04
16:24:24	16:27:45	00:03:21
16:29:22	16:31:38	00:02:16
16:32:57	16:36:54	00:03:57
16:37:06	16:48:01	00:10:55
16:48:40	16:55:30	00:06:50
16:55:54	17:03:58	00:08:04
17:05:12	17:07:46	00:02:34
17:08:55	17:11:00	00:02:05
17:12:17	17:13:09	00:00:52
17:13:51	17:21:36	00:07:45
17:22:06	17:26:08	00:04:02
17:26:38	17:41:30	00:14:52
17:41:57	17:52:07	00:10:10
18:02:55	18:07:37	00:04:42
18:07:57	18:19:44	00:11:47
18:20:24	18:24:04	00:03:40
18:24:20	18:39:26	00:15:06
18:39:46	18:47:01	00:07:15
18:47:37	18:48:45	00:01:08
18:49:13	18:53:14	00:04:01
18:54:13	19:04:46	00:10:33
19:09:29	19:12:57	00:03:28
19:13:39	19:14:09	00:00:30
19:55:33	19:57:23	00:01:50

Average Stay 00:05:32

Bay 16		
Time IN	Time OUT	DURATION
In at Start	08:00:20	
08:00:48	08:01:43	00:00:55
08:02:09	08:05:23	00:03:14
08:18:09	08:20:34	00:02:25
08:32:24	08:35:41	00:03:17
08:50:38	08:55:02	00:04:24
09:08:09	09:13:58	00:05:49
09:31:48	09:34:50	00:03:02
09:44:36	09:48:13	00:03:37
09:59:00	10:05:18	00:06:18
10:25:14	10:27:39	00:02:25
10:30:32	10:32:32	00:02:00
10:32:52	10:43:01	00:10:09
10:49:01	10:52:07	00:03:06
11:08:38	11:13:34	00:04:56
11:19:25	11:26:36	00:07:11
11:21:33	11:22:24	00:00:51
11:27:33	11:31:38	00:04:05
11:33:46	11:35:38	00:01:52
11:41:20	11:44:40	00:03:20
11:46:08	11:51:35	00:05:27
11:52:42	12:08:49	00:16:07
12:05:45	12:08:50	00:03:05
12:09:43	12:21:13	00:11:30
12:21:58	12:27:41	00:05:43
12:27:59	12:32:41	00:04:42
12:38:06	12:44:50	00:06:44
12:47:31	12:51:13	00:03:42
12:56:29	12:59:12	00:02:43
13:03:43	13:09:05	00:05:22
13:09:43	13:13:18	00:03:35
13:16:43	13:22:15	00:05:32
13:23:01	13:36:52	00:13:51
13:37:31	13:44:46	00:07:15
13:45:39	13:48:23	00:02:44
13:49:52	13:54:09	00:04:17
13:59:12	14:04:06	00:04:54
14:05:38	14:08:48	00:03:10
14:10:11	14:16:19	00:06:08
14:18:35	14:20:36	00:02:01
14:22:00	14:23:28	00:01:28
14:25:33	14:30:04	00:04:31
14:34:10	14:43:14	00:09:04
14:46:53	14:53:30	00:06:37
14:57:31	15:01:21	00:03:50
15:08:09	15:16:35	00:08:26
15:17:15	15:22:54	00:05:39
15:24:34	15:26:55	00:02:21
15:29:00	15:36:37	00:07:37
15:37:05	15:37:09	00:00:04
15:37:27	15:44:15	00:06:48
15:51:21	15:53:50	00:02:29
15:56:39	16:01:39	00:05:00
16:01:47	16:05:33	00:03:46
16:11:48	16:16:07	00:04:19
16:19:53	16:29:10	00:09:17
16:29:32	16:37:23	00:07:51
16:38:47	16:42:18	00:03:31
16:43:20	16:57:58	00:14:38
16:58:50	17:03:55	00:05:05
17:09:18	17:14:55	00:05:37
17:15:18	17:19:18	00:04:00
17:19:45	17:25:50	00:06:05
17:27:47	17:42:51	00:15:04
17:43:13	17:50:57	00:07:44
17:54:14	18:02:31	00:08:17
18:06:11	18:11:32	00:05:21
18:11:52	18:25:30	00:13:38
18:26:22	18:30:02	00:03:40
18:30:20	18:40:29	00:10:09
18:41:00	18:48:04	00:07:04
18:51:46	19:02:28	00:10:42
19:05:50	19:09:10	00:03:20
19:18:14	19:22:37	00:04:23
19:23:06	19:27:57	00:04:51
19:30:49	19:33:06	00:02:17
19:38:44	In at End	-

Average Stay 00:06:51

Bay 17		
Time IN	Time OUT	DURATION
09:30:25	09:34:03	00:03:38
10:52:21	10:55:40	00:03:19
11:22:12	11:24:58	00:02:46
11:28:21	11:33:22	00:05:01
11:41:58	11:46:58	00:05:00
11:48:56	11:51:58	00:03:02
12:19:34	12:23:49	00:04:15
12:27:15	12:35:07	00:07:52
12:41:19	12:46:12	00:04:53
13:00:53	13:15:06	00:14:13
13:20:50	13:26:19	00:05:29
13:27:00	13:35:09	00:08:09
14:03:24	14:06:33	00:03:09
14:19:05	14:21:28	00:02:23
14:28:31	14:32:43	00:04:12
15:05:00	15:06:02	00:01:02
15:13:07	15:21:19	00:08:12
15:23:28	15:25:59	00:02:31
15:30:19	15:32:49	00:02:30
15:40:56	15:42:32	00:01:36
16:14:54	16:33:24	00:18:30
16:33:32	16:55:06	00:21:34
16:35:25	16:39:23	00:03:58
16:41:33	16:46:04	00:04:31
16:49:48	16:53:13	00:03:25
16:53:35	16:59:32	00:05:57
17:00:08	17:06:53	00:06:45
17:20:34	17:25:02	00:04:28
17:29:30	18:09:16	00:39:46
18:10:45	18:18:33	00:07:48
18:22:37	18:27:43	00:05:06
18:43:21	18:48:20	00:04:59
18:52:51	19:06:49	00:13:58
19:07:13	19:12:11	00:04:58
19:12:22	19:15:37	00:03:15
19:18:28	19:31:04	00:12:36
19:32:29	19:33:51	00:01:22
19:46:14	19:50:20	00:04:06
19:57:00	In at End	-

Average Stay 00:06:17

Bay 18		
Time IN	Time OUT	DURATION
08:25:07	08:31:54	00:06:47
11:08:45	11:12:39	00:03:54
12:01:34	12:07:14	00:05:40
13:05:53	13:12:54	00:07:01
13:23:01	13:27:06	00:04:05
13:30:22	13:38:29	00:08:07
14:30:17	14:32:06	00:01:49
15:14:34	15:22:41	00:08:07
16:02:26	16:04:44	00:02:18
16:11:54	16:15:36	00:03:42
16:21:39	16:26:15	00:04:36
16:34:41	16:36:31	00:01:50
16:40:25	16:46:09	00:05:44
16:49:51	17:03:51	00:14:00
17:11:50	17:24:00	00:12:10
17:24:24	17:29:13	00:04:49
17:31:35	17:42:45	00:11:10
17:44:54	17:57:05	00:12:11
17:59:52	18:05:47	00:05:55
18:12:47	18:21:15	00:08:28
18:28:25	18:31:11	00:02:46
18:37:25	18:43:41	00:06:16
18:44:52	18:45:55	00:01:03
18:55:52	19:01:55	00:06:03
19:08:37	19:15:10	00:06:33
19:18:51	19:32:54	00:14:03
19:41:12	19:41:31	00:00:19

Average Stay 00:09:21

Bay 19		
Time IN	Time OUT	DURATION
10:12:25	10:46:31	00:34:06
11:28:39	11:35:38	00:06:59
13:11:40	13:22:59	00:11:19
13:26:13	13:26:35	00:00:22
14:03:45	14:07:47	00:04:02
16:14:25	16:23:51	00:09:26

APPENDIX L

Calculation Reference: AUDIT-219602-200417-0436

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : O - CONVENIENCE STORE
VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	WL WILTSHIRE	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	WY WEST YORKSHIRE	1 days
09	NORTH	
	DH DURHAM	1 days
	TW TYNE & WEAR	1 days

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

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 292 to 469 (units: sqm)
Range Selected by User: 70 to 1200 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 07/04/17

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

Selected survey days:

Monday	1 days
Thursday	1 days
Friday	3 days

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

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	1

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

Selected Location Sub Categories:

Residential Zone	5
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This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

A1	5 days
----	--------

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

Secondary Filtering selection (Cont.):

Population within 1 mile:

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

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

Population within 5 miles:

100,001 to 125,000	1 days
125,001 to 250,000	3 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	3 days

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

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	5 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	5 days
----	--------

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

PTAL Rating:

No PTAL Present	5 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	DH-01-O-01	SAINSBURY'S LOCAL	DURHAM
	132 STATION LANE		
	HARTLEPOOL		
	SEATON CAREW		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	469 sqm	
	Survey date: MONDAY	26/11/12	Survey Type: MANUAL
2	NF-01-O-01	TESCO EXPRESS	NORFOLK
	DEREHAM ROAD		
	NORWICH		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	298 sqm	
	Survey date: FRIDAY	26/10/12	Survey Type: MANUAL
3	TW-01-O-02	CO-OPERATIVE	TYNE & WEAR
	ETHEL TERRACE		
	SUNDERLAND		
	CASTLETOWN		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	330 sqm	
	Survey date: FRIDAY	07/04/17	Survey Type: MANUAL
4	WL-01-O-01	ONE STOP	WILTSHIRE
	THE CIRCLE		
	SWINDON		
	Suburban Area (PPS6 Out of Centre)		
	Residential Zone		
	Total Gross floor area:	292 sqm	
	Survey date: FRIDAY	23/09/16	Survey Type: MANUAL
5	WY-01-O-01	SAINSBURY'S LOCAL	WEST YORKSHIRE
	KEIGHLEY ROAD		
	BRADFORD		
	Edge of Town		
	Residential Zone		
	Total Gross floor area:	400 sqm	
	Survey date: THURSDAY	06/12/12	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
DV-01-O-01	parking?
ES-01-O-01	parking?
LE-01-O-01	parking?
NY-01-O-03	parking?
SY-01-O-02	parking?
WY-01-O-02	parking?

TRIP RATE for Land Use 01 - RETAIL/O - CONVENIENCE STORE
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	1	298	4.027	1	298	3.356	1	298	7.383
07:00 - 08:00	5	358	8.552	5	358	7.658	5	358	16.210
08:00 - 09:00	5	358	8.888	5	358	8.105	5	358	16.993
09:00 - 10:00	5	358	7.378	5	358	6.596	5	358	13.974
10:00 - 11:00	5	358	6.819	5	358	6.931	5	358	13.750
11:00 - 12:00	5	358	7.826	5	358	7.937	5	358	15.763
12:00 - 13:00	5	358	11.068	5	358	10.061	5	358	21.129
13:00 - 14:00	5	358	6.931	5	358	6.708	5	358	13.639
14:00 - 15:00	5	358	8.496	5	358	8.273	5	358	16.769
15:00 - 16:00	5	358	9.670	5	358	10.453	5	358	20.123
16:00 - 17:00	5	358	12.018	5	358	10.229	5	358	22.247
17:00 - 18:00	5	358	12.186	5	358	10.900	5	358	23.086
18:00 - 19:00	5	358	13.639	5	358	14.813	5	358	28.452
19:00 - 20:00	5	358	10.117	5	358	11.794	5	358	21.911
20:00 - 21:00	4	374	3.741	4	374	5.611	4	374	9.352
21:00 - 22:00	4	374	2.672	4	374	3.407	4	374	6.079
22:00 - 23:00	1	469	1.919	1	469	2.559	1	469	4.478
23:00 - 24:00									
Total Rates:			135.947			135.391			271.338

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

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

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Parameter summary

Trip rate parameter range selected: 292 - 469 (units: sqm)
 Survey date range: 01/01/12 - 07/04/17
 Number of weekdays (Monday-Friday): 5
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 6

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

APPENDIX M

Co-Op Marston Moretaine, Saturday 15th February 2014

Car Park	800	805	810	815	820	825	830	835	840	845	850	855	Ax
1-15	3	5	4	6	5	4	7	7	7	6	5	5	5
	17.6%	29.4%	23.5%	35.3%	29.4%	23.5%	41.2%	41.2%	41.2%	35.3%	29.4%	29.4%	31%

Car Park	900	905	910	915	920	925	930	935	940	945	950	955	Ax
1-15	5	6	7	7	7	9	8	8	8	8	7	6	7
	29.4%	35.3%	41.2%	41.2%	41.2%	52.9%	47.1%	47.1%	47.1%	47.1%	41.2%	35.3%	42%

Car Park	1000	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050	1055	Ax
1-15	6	6	7	8	7	8	9	8	7	8	6	7	7
	35.3%	35.3%	41.2%	47.1%	41.2%	47.1%	52.9%	47.1%	41.2%	47.1%	35.3%	41.2%	43%

Car Park	1100	1105	1110	1115	1120	1125	1130	1135	1140	1145	1150	1155	Ax
1-15	7	9	7	8	6	5	6	7	7	7	6	7	7
	41.2%	52.9%	41.2%	47.1%	35.3%	29.4%	35.3%	41.2%	41.2%	41.2%	35.3%	41.2%	40%

Car Park	1200	1205	1210	1215	1220	1225	1230	1235	1240	1245	1250	1255	Ax
1-15	6	7	8	8	8	8	6	7	7	7	5	5	7
	35.3%	41.2%	47.1%	47.1%	47.1%	47.1%	35.3%	41.2%	41.2%	41.2%	29.4%	29.4%	40%

Car Park	1300	1305	1310	1315	1320	1325	1330	1335	1340	1345	1350	1355	Ax
1-15	5	6	8	7	7	7	8	7	6	7	8	7	7
	29.4%	35.3%	47.1%	41.2%	41.2%	41.2%	47.1%	41.2%	35.3%	41.2%	47.1%	41.2%	41%

Car Park	1400	1405	1410	1415	1420	1425	1430	1435	1440	1445	1450	1455	Ax
1-15	7	6	6	6	7	5	6	6	7	6	8	8	7
	41.2%	35.3%	35.3%	35.3%	41.2%	29.4%	35.3%	35.3%	41.2%	35.3%	47.1%	47.1%	38%

Car Park	1500	1505	1510	1515	1520	1525	1530	1535	1540	1545	1550	1555	Ax
1-15	8	7	7	7	6	7	7	8	9	10	10	8	8
	47.1%	41.2%	41.2%	41.2%	35.3%	41.2%	41.2%	47.1%	52.9%	58.8%	58.8%	47.1%	46%

Car Park	1600	1605	1610	1615	1620	1625	1630	1635	1640	1645	1650	1655	Ax
1-15	6	7	7	8	8	8	8	7	8	7	9	10	8
	35.3%	41.2%	41.2%	47.1%	47.1%	47.1%	47.1%	41.2%	47.1%	41.2%	52.9%	58.8%	46%

Car Park	1700	1705	1710	1715	1720	1725	1730	1735	1740	1745	1750	1755	Ax
1-15	10	9	8	8	8	10	10	9	8	7	6	7	8
	58.8%	52.9%	47.1%	47.1%	47.1%	58.8%	58.8%	52.9%	47.1%	41.2%	35.3%	41.2%	49%

Car Park	1800	1805	1810	1815	1820	1825	1830	1835	1840	1845	1850	1855	Ax
1-15	6	6	6	5	5	7	8	9	9	8	7	5	7
	35.3%	35.3%	35.3%	29.4%	29.4%	41.2%	47.1%	52.9%	52.9%	47.1%	41.2%	29.4%	40%

Car Park	1900	1905	1910	1915	1920	1925	1930	1935	1940	1945	1950	1955	Ax
1-15	5	4	4	4	6	5	6	6	7	7	8	7	6
	29.4%	23.5%	23.5%	23.5%	35.3%	29.4%	35.3%	35.3%	41.2%	41.2%	47.1%	41.2%	34%

Co-Op Marston Moretaine, Tuesday 18th February 2014

Car Park	700	705	710	715	720	725	730	735	740	745	750	755	Ax
1-15	4	5	4	5	4	6	5	4	5	6	5	7	5
	23.5%	29.4%	23.5%	29.4%	23.5%	35.3%	29.4%	23.5%	29.4%	35.3%	29.4%	41.2%	29%

Car Park	800	805	810	815	820	825	830	835	840	845	850	855	Ax
1-15	5	6	5	6	8	6	5	6	8	9	7	6	6
	29.4%	35.3%	29.4%	35.3%	47.1%	35.3%	29.4%	35.3%	47.1%	52.9%	41.2%	35.3%	38%

Car Park	900	905	910	915	920	925	930	935	940	945	950	955	Ax
1-15	7	7	6	7	8	7	9	7	5	6	7	6	7
	41.2%	41.2%	35.3%	41.2%	47.1%	41.2%	52.9%	41.2%	29.4%	35.3%	41.2%	35.3%	40%

Car Park	1000	1005	1010	1015	1020	1025	1030	1035	1040	1045	1050	1055	Ax
1-15	5	7	6	6	7	6	7	8	8	7	7	6	7
	29.4%	41.2%	35.3%	35.3%	41.2%	35.3%	41.2%	47.1%	47.1%	41.2%	41.2%	35.3%	39%

Car Park	1100	1105	1110	1115	1120	1125	1130	1135	1140	1145	1150	1155	Ax
1-15	5	4	5	6	6	5	5	6	5	4	6	7	5
	29.4%	23.5%	29.4%	35.3%	35.3%	29.4%	29.4%	35.3%	29.4%	23.5%	35.3%	41.2%	31%

Car Park	1200	1205	1210	1215	1220	1225	1230	1235	1240	1245	1250	1255	Ax
1-15	7	6	5	6	4	5	6	5	6	7	8	6	6
	41.2%	35.3%	29.4%	35.3%	23.5%	29.4%	35.3%	29.4%	35.3%	41.2%	47.1%	35.3%	35%

Car Park	1300	1305	1310	1315	1320	1325	1330	1335	1340	1345	1350	1355	Ax
1-15	7	7	8	7	7	8	9	7	7	7	6	7	7
	41.2%	41.2%	47.1%	41.2%	41.2%	47.1%	52.9%	41.2%	41.2%	41.2%	35.3%	41.2%	43%

Car Park	1400	1405	1410	1415	1420	1425	1430	1435	1440	1445	1450	1455	Ax
1-15	7	7	6	6	6	7	6	5	6	6	5	7	6
	41.2%	41.2%	35.3%	35.3%	35.3%	41.2%	35.3%	29.4%	35.3%	35.3%	29.4%	41.2%	36%

Car Park	1500	1505	1510	1515	1520	1525	1530	1535	1540	1545	1550	1555	Ax
1-15	5	6	5	4	5	6	7	6	7	8	8	9	6
	29.4%	35.3%	29.4%	23.5%	29.4%	35.3%	41.2%	35.3%	41.2%	47.1%	47.1%	52.9%	37%

Car Park	1600	1605	1610	1615	1620	1625	1630	1635	1640	1645	1650	1655	Ax
1-15	9	9	10	8	7	9	8	7	6	7	8	6	8
	52.9%	52.9%	58.8%	47.1%	41.2%	52.9%	47.1%	41.2%	35.3%	41.2%	47.1%	35.3%	46%

Car Park	1700	1705	1710	1715	1720	1725	1730	1735	1740	1745	1750	1755	Ax
1-15	6	6	6	7	6	5	6	7	7	7	6	5	6
	35.3%	35.3%	35.3%	41.2%	35.3%	29.4%	35.3%	41.2%	41.2%	41.2%	35.3%	29.4%	36%

Car Park	1800	1805	1810	1815	1820	1825	1830	1835	1840	1845	1850	1855	Ax
1-15	5	5	5	4	5	6	5	4	5	4	5	3	5
	29.4%	29.4%	29.4%	23.5%	29.4%	35.3%	29.4%	23.5%	29.4%	23.5%	29.4%	17.6%	27%

Car Park	1900	1905	1910	1915	1920	1925	1930	1935	1940	1945	1950	1955	Ax
1-15	4	4	5	4	4	3	4	6	4	3	3	2	4
	23.5%	23.5%	29.4%	23.5%	23.5%	17.6%	23.5%	35.3%	23.5%	17.6%	17.6%	11.8%	23%

Car Park	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050	2055	Ax
1-15	2	2	3	4	3	5	3	4	4	4	3	2	3
	11.8%	11.8%	17.6%	23.5%	17.6%	29.4%	17.6%	23.5%	23.5%	23.5%	17.6%	11.8%	19%

Car Park	2100	2105	2110	2115	2120	2125	2130	2135	2140	2145	2150	2155	Ax
1-15	3	3	4	4	5	3	4	4	3	3	2	3	3
	17.6%	17.6%	23.5%	23.5%	29.4%	17.6%	23.5%	23.5%	17.6%	17.6%	11.8%	17.6%	20%

APPENDIX N

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Administration

General Specifications

Customer Name	St. Helens M.B.C.	Customer Order No.	
Intersection/ General Description	Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens	Controller/ Serial Number	
		S.T.S. /EM Number	82167 Issue 1
Controller	☒ New ☐ Modification	Equipment Installation by	
Area Specifications/ Customer Drawings		Slot Cutting by	
Specification Section		Civil Works by	
Contract/Tender Ref:		Customer's Engineer	Ian McCooley
Quotation No.		Telephone Number	01744 67 6407
Works Order No.	460917142		

Signal Company Use Only

Signal Engineer	Stuart Mulliner	(IF PROM Label as >) PROM Number	0	PROM Variant	0
		Configuration Check Value	FD 88 DA 76		

Controller Options

Hardware	ST950 ELV	Firmware Type and Issue	46059 ISS 8	Other Options	
----------	-----------	-------------------------	-------------	---------------	--

ST950/ST900/ST750 Series Cabinet Options

Cabinet/Rack	Cabinet	Kit Type Options	☒ UK-Std ☐ Non-UK ☐		
Cabinet/Rack Variant	Grey	Cuckoo Options	None	Gemini Unit Fitted	☐

Mains Supply	240	Volts	50	Hz				
Peak Lamp Current	15	Amps	Dimming Voltage	27.5	Answer Issue	0	Date Created	10/08/2015
Average Lamp Power	750	Watts	Low Inrush Transformer	☐	Edit Issue	1		
Total Average Power	1000	Watts						

Power feed fuse rating: requires 30 Amp minimum for controller, 15 Amp minimum for pelican/lightly loaded controller

Phases, Stages and Streams

Phases, Stages and Streams

Add/Delete/Insert Streams:

Streams

Current Number of Streams

2

Phases

Current Total Number of Phases

22

Number of Real Phases

19

Number of Dummy Phases

3

Stages

Current Number of stages
(inc.ALL-RED stages)

13

Switched Signs

Number of Switched Signs

0

Action

Add At

Delete At

Facilities/Modes Enabled and Mode Priority Levels

Facilities

UTC

☒ Serial/Internal UTMC OTU

☐ Free-standing OTU

☐

☒ Serial MOVA

☒ Master Time Clock

☐ Holiday Clock

☒ FT To Current MAX

☐ Linked Fixed Time

☒ Lamp Monitoring

☒ RED Lamp Monitoring

☐ Pelican/Puffin/Toucan

☐ Standalone Manual

☐ Extend All Red

☐ Speed Measurement

☐ Ripple Change

☐

☐ Non-UK

☐ Fail to Part Time

☐ Fail To Hardware Flashing

☐

☐ Download To Level 3

9

Starting Intergreen

Mode Priority

	1	2	3	4	5	6	7	8	9	10	11	12	13
☒ Part Time	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Emergency Vehicles	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Hurry Call	☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐
☐ LRT	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Priority Vehicle	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Manual Control	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ Manual Step On	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ Selected FT or VA or CLF	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ UTC	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐ CLF (Non-Base Time)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☒ CLF (Base Time)	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐
☒ Vehicle Actuated	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒	☐
☒ Fixed Time	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☒

Configuration Complexity

☐ Low

☐ Medium

☐ High

☒ Maximum

standard46059.8df

Default PROM data file

Correspondence Monitoring to inc.

☒ Reds

☒ Ambers

☒ Switched Signs

☐ Ignore Reds and Ambers during

Flash Rate (ms)

400

Off

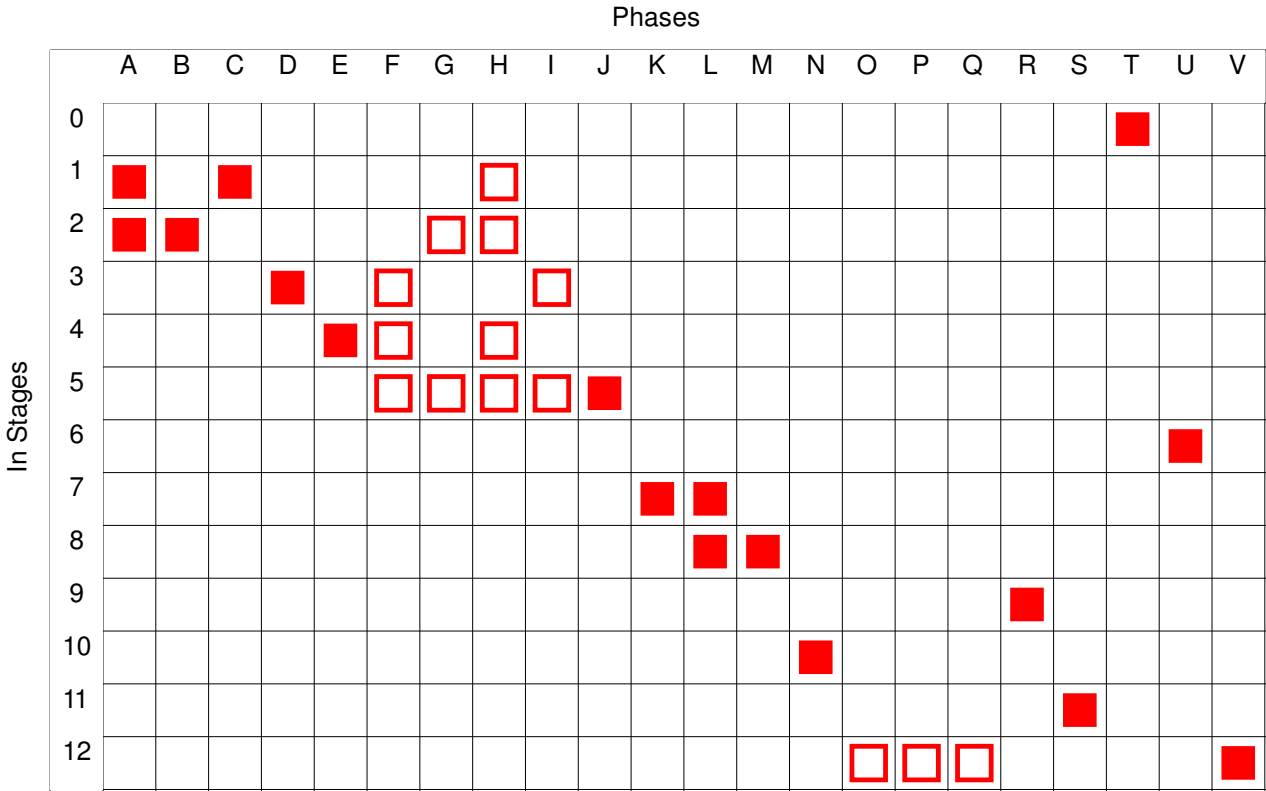
400

On

Last Modified 11/08/2015, Issue 1.0.1

Form Ref: 1.3

Phases in Stages



Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Stages in Streams

Stages in Streams

	0	1	2	3	4	5	6	7
Phase or Stage to revert to in absence of demands/extensions								
Startup Stage	1	7						
Switch Off Stage	0	6						
Standalone Pedestrian	☐	☐	☐	☐	☐	☐	☐	☐

Note: For a Stand-Alone Stream, the reversion must be to All Red stage or Traffic stage/phase to meet the relevant standard or specification.

Stages

In Stream

	0	1	2	3	4	5	6	7	8	9	10	11	12
0	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐
1	☐	☐	☐	☐	☐	☐	☒	☒	☒	☒	☒	☒	☒

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Phase Type and Conditions

Phase Type and Conditions

☒ Phases A to P

☐ Phases Q to F2

Manual Output Allocation

☒ Improved GA Appearance

☒

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs		
						"R"	"A"	"G"
A	Warrington Road Eastbound	0 - UK Traffic	0	0 - E		1	1	1
B	Warrington Road Eastbound Right Turn Arrow	2 - UK Green Arrow	0	2 - P	A	0	0	1
C	Warrington Road Westbound	0 - UK Traffic	0	0 - E		1	1	1
D	Hospital Exit	0 - UK Traffic	0	0 - E		1	1	1
E	Longview Road	0 - UK Traffic	0	0 - E		1	1	1
F	Pedestrians across Phase A Stop Line	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
G	Pedestrians across Phase C Exit Side	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
H	Pedestrians across Phase D Stop Line	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
I	Pedestrians across Hospital Entrance	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
J	Pedestrians across Longview Road	3 - UK Near Side Pedestrian	0	0 - E		1	1	2
K	Warrington Road Eastbound	0 - UK Traffic	0	0 - E		1	1	1
L	Warrington Road Westbound	0 - UK Traffic	0	0 - E		1	1	1
M	Warrington Road Westbound Right Turn Arrow	2 - UK Green Arrow	0	2 - P	L	0	0	1
N	Holt Lane	0 - UK Traffic	0	0 - E		1	1	1
O	Pedestrians across Warrington Road West Side	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
P	Pedestrians across Holt Lane	3 - UK Near Side Pedestrian	3	0 - E		1	1	2

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W, 2 = Term's when Assoc phase loses R.O.W.
3) The H/W Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Phase Type and Conditions

Phase Type and Conditions

☐ Phases A to P

☒ Phases Q to F2

Manual Output Allocation

☒ Improved GA Appearance

☒

Phase	Title	Type	App. Type	Term. Type	Assoc. Phase	No. of Drive Outputs		
						"R"	"A"	"G"
Q	Pedestrians across Warrington Road East Side	3 - UK Near Side Pedestrian	3	0 - E		1	1	2
R	North Access	0 - UK Traffic	0	0 - E		1	1	1
S	South Access	0 - UK Traffic	0	0 - E		1	1	1
T	Dummy for Stage 0 / Stream 0 All Red	2 - UK Green Arrow	0	0 - E				
U	Dummy for Stage 6 / Stream 1 All Red	2 - UK Green Arrow	0	0 - E				
V	Dummy for Stage 12 Reference	2 - UK Green Arrow	0	0 - E				

1) App Types: 0 = Always Appears, 1 = Appears if dem'd prior to interstage, 2 = If dem'd, 3 = If dem'd before end of window time
2) Term Types: 0 = Term's at end of stage, 1 = Term's when Assoc phase gains R.O.W., 2 = Term's when Assoc phase loses R.O.W.
3) The H/W Fail Flash fields are for information only on all but ST900ELV Controllers. For other controllers, physical switches or links (etc.) select which aspects flash and these need to be set up manually.

Opposing and Conflicting Phases

Select Stream(s) To Configure

☐ All

☐ 0

☐ 1

☐

☐

☐

☐

☐

Initialise

☒ Amber Conflict Monitoring

To Phase

From Phase

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
A		o	o	Co	Co	Co	o	o	Co	Co										o		
B	o		Co	Co	Co	Co	o	o	Co	Co										o		
C	o	Co		Co	Co	o	Co	o	Co	Co										o		
D	Co	Co	Co		Co	o	Co	Co	o	Co										o		
E	Co	Co	Co	Co		o	Co	o	Co	Co										o		
F	Co	Co	o	o	o		o	o	o	o										o		
G	o	o	Co	Co	Co	o		o	o	o										o		
H	o	o	o	Co	o	o	o		o	o										o		
I	Co	Co	Co	o	Co	o	o	o		o										o		
J	Co	Co	Co	Co	Co	o	o	o	o											o		
K												o	Co	Co	Co	Co	Co	Co	Co		o	o
L											o		o	Co	Co	Co	Co	Co	Co		o	o
M											Co	o		Co	Co	Co	Co	Co	Co		o	o
N											Co	Co	Co		Co	Co	Co	Co	Co		o	o
O											Co	Co	Co	Co		o	o	Co	Co		o	o
P											Co	Co	Co	Co	o		o	Co	Co		o	o
Q											Co	Co	Co	Co	o	o		Co	Co		o	o
R											Co	Co	Co	Co	Co	Co	Co		Co		o	o
S											Co	Co	Co	Co	Co	Co	Co	Co			o	o
T	o	o	o	o	o	o	o	o	o	o												
U											o	o	o	o	o	o	o	o	o			o
V											o	o	o	o	o	o	o	o	o		o	

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

☒ Phases A to P☐ Phases Q to F2

Phase	Min Green	Min Ped Clr	Extensions	Maximums								
				A	B	C	D	E	F	G	H	Pre-timed
A	7	0	0.0	35	35	35	35	35	35	35	35	☐
B	4	0	0.0	20	20	20	20	20	20	20	20	☐
C	7	0	0.0	35	35	35	35	35	35	35	35	☐
D	7	0	0.0	20	20	20	20	20	20	20	20	☐
E	7	0	0.0	20	20	20	20	20	20	20	20	☐
F	6	3	0.0	0	0	0	0	0	0	0	0	☐
G	6	3	0.0	0	0	0	0	0	0	0	0	☐
H	6	3	0.0	0	0	0	0	0	0	0	0	☐
I	6	3	0.0	0	0	0	0	0	0	0	0	☐
J	6	3	0.0	0	0	0	0	0	0	0	0	☐
K	7	0	0.0	35	35	35	35	35	35	35	35	☐
L	7	0	0.0	35	35	35	35	35	35	35	35	☐
M	4	0	0.0	20	20	20	20	20	20	20	20	☐
N	7	0	0.0	20	20	20	20	20	20	20	20	☐
O	6	3	0.0	0	0	0	0	0	0	0	0	☐
P	6	3	0.0	0	0	0	0	0	0	0	0	☐

Note: For Standalone Streams see Help for use of Max Sets.

Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Phase Minimums, Maximums, Extensions, Ped Leaving Periods

Note: For Standalone Streams see Help for use of Max Sets.

Phase Intergreen Times

Select Stream(s) To Configure

☐ All ☐ 0 ☐ 1 ☐ ☐ ☐ ☐ ☐ ☐

Note: On a Stand Alone Pelican/Toucan/Puffin Stream the Intergreens between Pedestrian and Traffic Phases are controlled by the timings (PBT, PIT, CMX, CDY, CRD and PAR), therefore 0 should be entered for the appropriate intergreen times in grid below.

		To Phase																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
From Phase	A				5	5	5			9	7										3		
	B			6	5	6	5			9	7										3		
	C		5		5	5		8		7	8										3		
	D	6	6	5		6		7	5		8										3		
	E	5	5	5	6			8		7	5										3		
	F	7	7																		3		
	G			7	7	7															3		
	H				7																3		
	I	7	7	7		7															3		
	J	7	7	7	7	7															3		
	K													5	6	8	8	8	8	6		3	8
	L														6	8	8	8	9	8		3	8
	M											5			6	8	8	8	9	8		3	8
	N											6	6	6		8	8	8	6	7		3	8
	O											9	9	9	9				9	9		3	
	P											9	9	9	9				9	9		3	
	Q											9	9	9	9				9	9		3	
	R											8	8	8	6	8	8	8		7		3	8
	S											6	6	6	6	8	8	8	7			3	8
	T																						
	U																						
	V																						

Intergreen Handset Limits

HIGH

30

Copy Intergreen Values

		To Phase																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
From Phase	A				5	5	5			8	6										3		
	B			5	5	5	5			8	6										3		
	C		5		5	5		7		6	7										3		
	D	5	5	5		5		6	5		7										3		
	E	5	5	5	5			7		6	5										3		
	F	6	6																		3		
	G			6	6	6															3		
	H				6																3		
	I	6	6	6		6															3		
	J	6	6	6	6	6															3		
	K													5	5	7	7	7	7	5		3	7
	L														5	7	7	7	8	7		3	7
	M											5			5	7	7	7	8	7		3	7
	N											5	5	5		7	7	7	5	6		3	7
	O											8	8	8	8				8	8		3	
	P											8	8	8	8				8	8		3	
	Q											8	8	8	8				8	8		3	
	R											7	7	7	5	7	7	7		6		3	7
	S											5	5	5	5	7	7	7	6			3	7
	T																						
	U																						
	V																						

Phase Timing Handset Ranges

Phase Timing Handset Ranges

Initialise Min Green Limits

Phase	Min. Green	
	Min.	Max.
A	7	20
B	4	20
C	7	20
D	7	20
E	7	20
F	6	20
G	6	20
H	6	20
I	6	20
J	6	20
K	7	20
L	7	20
M	4	20
N	7	20
O	6	20
P	6	20

Phase	Min. Green	
	Min.	Max.
Q	6	20
R	7	20
S	7	20
T	3	20
U	3	20
V	6	20
W		
X		
Y		
Z		
A2		
B2		
C2		
D2		
E2		
F2		

Max. Green

Min. 0Max. 255

Vehicle Extension

Min. 0.0Max. 10.0

Phase Delay

Min. 0Max. 30

Starting I/G

Min. 7Max. 15

Min Pedestrian Clearance (PBT)

Min. 1Max. 5

Traffic Phase Leaving

Min. 3.0Max. 3.0

Traffic Phase Red/Amber

Min. 2Max. 2

VA Demand and Extend Definitions

VA Demand and Extend Definitions

Phase

A	AX3	BX4		
B				
C	CX8	CX9		
D	DX12	DX13		
E	EX16			
F	PEDF1	PEDF1516		
G	PEDG12	PEDG1314		
H	PEDH910	PEDH11		
I	PEDI6	PEDI78		
J	PEDJ2	PEDJ3		
K	KX34			
L	LX37			
M				
N	NX39			
O	PEDO17	PEDO26		
P	PEDP20	PEDP22		

☒ Phases A to P

☐ Phases Q to F2

Extensions

AX3	ASL5	BX4	BSL6
BX4	BSL6		
CX8	CX9	CSL10	CSL11
DX12	DX13	DSL14	DSL15
EX16	ESL17		
KX34	KSL35		
LX37	LSL38		
LX37	LSL38		
NX39	NSL40		

VA Demand and Extend Definitions

VA Demand and Extend Definitions

Phase

Q

R

S

T

U

V

Demands

For Unlatched demands precede the name with a #.
Conditioning MUST be used to specify unlatched demands.

PEDQ23	PEDQ24		
RSL41			
SSL42			

☐ Phases A to P

☒ Phases Q to F2

Extensions

RSL41			
SSL42			

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Phase Internal/Revertive Demands

Phase Internal/Revertive Demands

Start-up Vehicle Responsive Demands

A	☒	B	☐	C	☒	D	☒	E	☒	F	☒	G	☒	H	☒	I	☒	J	☒	K	☒	L	☒	M	☐	N	☒	O	☒	P	☒
Q	☒	R	☒	S	☒	T	☐	U	☐	V	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Demands Inserted When Leaving Manual and Fixed Time Modes

A	☒	B	☐	C	☒	D	☒	E	☒	F	☐	G	☐	H	☐	I	☐	J	☐	K	☒	L	☒	M	☒	N	☒	O	☐	P	☐
Q	☐	R	☒	S	☒	T	☐	U	☐	V	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Unlatched Demands that Start Max Timers

A	☒	B	☒	C	☒	D	☒	E	☒	F	☒	G	☒	H	☒	I	☒	J	☒	K	☒	L	☒	M	☒	N	☒	O	☒	P	☒
Q	☒	R	☒	S	☒	T	☒	U	☒	V	☒		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐

Revertive Phase Demands

A		B		C		D		E		F		G		H		I		J		K		L		M		N		O		P	
A	A	C	D	E						K	L	M	N																		
Q		R		S		T		U		V		W		X		Y		Z		A2		B2		C2		D2		E2		F2	
	R	S																													

Stages - Prohibited, Alternative, Ignored Moves

Stages - Prohibited, Alternative, Ignored Moves

Sets
☒ 1
☐ 2
☐ 3
☐ 4

Modes	Restrictions Apply To:	No Restrictions
	☒	☐
Cableless Linking	☒	☐
Vehicle Actuated	☒	☐
Hurry Call	☒	☐
Fixed Time	☒	☐

Modes	Restrictions Apply To:	No Restrictions
Manual	☒	☐
	☐	☐
	☐	☐
Part Time	☒	☐
	☐	☐

To Stage

From Stage

	0	1	2	3	4	5	6	7	8	9	10	11	12
0			1										
1													
2		0											
3			1										
4			1										
5			1										
6									7				
7													
8								6					
9								7					
10								7					
11								7					
12								7					

Stages - Prohibited, Alternative, Ignored Moves

Stages - Prohibited, Alternative, Ignored Moves

Sets
☐ 1
☒ 2
☐ 3
☐ 4

Modes	Restrictions Apply To:	No Restrictions
Urban Traffic Control	☒	☐
	☒	☐
	☒	☐
	☒	☐
	☒	☐
	☐	☐

Modes	Restrictions Apply To:	No Restrictions
	☒	☐
	☐	☐
	☐	☐
	☒	☐
	☐	☐

		To Stage												
		0	1	2	3	4	5	6	7	8	9	10	11	12
From Stage	0			X										
	1													
	2		X											
	3			X										
	4			X										
	5			X										
	6									X				
	7													
	8							X						
	9								X					
	10								X					
	11								X					
	12								X					

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Stage Internal Demands/Pedestrian Window Times

Stage Internal Demands/Pedestrian Window Times

Start-up Vehicle Responsive Demands

0	☐	1	☐	2	☐	3	☐	4	☐	5	☐	6	☐	7	☐	8	☐	9	☐	10	☐	11	☐	12	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐	

Demands Inserted When Leaving Manual and Fixed Time Modes

0	☐	1	☐	2	☐	3	☐	4	☐	5	☐	6	☐	7	☐	8	☐	9	☐	10	☐	11	☐	12	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐	

Unlatched Demands that Start Maximum Timers

0	☒	1	☒	2	☒	3	☒	4	☒	5	☒	6	☒	7	☒	8	☒	9	☒	10	☒	11	☒	12	☒	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐	

Window Times

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0	0	0	0	0	0	0	0	0	0	0	0	0			
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Exceptional Stages

0	☐	1	☐	2	☐	3	☐	4	☐	5	☐	6	☐	7	☐	8	☐	9	☐	10	☐	11	☐	12	☐	☐	☐	☐
	☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐		☐	

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Fixed Time

Fixed Time

Stage Moves & Times (Nbt Fixed Time to Current Max)

Current Stage	0	1	2	3	4	5	6	7
Next Stage	1	2	3	4	5	1	7	8
Time	0	35	20	20	20	0	0	35
Current Stage	8	9	10	11	12	13	14	15
Next Stage	9	10	11	12	7			
Time	20	7	20	7	0			
Current Stage	16	17	18	19	20	21	22	23
Next Stage								
Time								
Current Stage	24	25	26	27	28	29	30	31
Next Stage								
Time								

Note:
Fixed Time mode may be used by the Reserve State, therefore, the Stage Moves and Times section should always be configured (unless Linked Fixed Time is selected instead).

Phases Demanded and Extended under Fixed Time to Current Max.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Demand	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒	☒	☐	☐
Extend	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☒	☒	☒	☒	☐	☐
	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Demand	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Extend	☐	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

CLF - Base Time

CLF - Base Time

Controller Base Date

XX/XX/XX

Controller Base Time

02:00:00

Plan Offset

	Minutes	Seconds		Minutes	Seconds
Plan 0	0	0	Plan 8	0	0
Plan 1	0	0	Plan 9	0	0
Plan 2	0	0	Plan 10	0	0
Plan 3	0	0	Plan 11	0	0
Plan 4	0	0	Plan 12	0	0
Plan 5	0	0	Plan 13	0	0
Plan 6	0	0	Plan 14	0	0
Plan 7	0	0	Plan 15	0	0

Handset Range Limits

	Minutes	Seconds
Min	0	0
Max	4	59

CLF - Demand Dependent Moves

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

		Phases																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Stages	0																						
	1																						
	2		■					■															
	3				■					■													
	4					■	■																
	5										■												
	6																						
	7																						
	8														■								
	9																						
	10																						
	11																						
	12																						

UTC General Data

UTC General Data

Type of UTC

☒ 106

☐ 316

Integral OTU Address

4

Number of Control Words

4

Number of Reply Words

☐

Controller to respond to TC bit.

☐

Introduction of UTC to be disabled by Priority and L

Non UTC RTC synchronisation input name

RTC Synchronisation Times

Clock Synchronise Time (UTC TS input)

Day

Time

Saturday

00:00:00

Clock Confirm Time (UTC RT output)

Day

Time

Saturday

00:00:00

UTC Control and Reply Data Format

UTC Control and Reply Data Format

	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
Control Words								
Word 1	F1	F2	F3	F4	F5	F0		
Word 2								
Word 3	F7	F8	F9	F10	F11	F12	F6	
Word 4								
Reply Words								
Word 1	G1	G2	G3	G4	G5	G0	GA	
Word 2								
Word 3	G7	G8	G9	G10	G11	G12	G6	GL
Word 4								
Word 5								
Word 6								
Word 7								
Word 8								
Word 9								
Word 10								
Word 11								
Word 12								
Word 13								
Word 14								

UTC Stage and Mode Data Definitions

UTC Stage and Mode Data Definitions

Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit	Stage	Force Bit	Green Confirm Bit	Demand Confirm Bit
0	F0	G0		16			
1	*ROUGH1	G1		17			
2	F2	G2		18			
3	F3	G3		19			
4	F4	G4		20			
5	F5	G5		21			
6	F6	G6		22			
7	*ROUGH7	G7		23			
8	F8	G8		24			
9	F9	G9		25			
10	F10	G10		26			
11	F11	G11		27			
12	F12	G12		28			
13				29			
14				30			
15				31			

Mode Data Definitions

Manual Mode Operative:

☐ G1/G2 ☐ RR ☐

Manual Mode Selected:

☐ G1/G2 ☐ RR ☐

No Lamp Power, or Lamps Off due to RLM or Part Time:

☐ G1/G2 ☐ ☐

Detector Fault:

☐ ☐ ☐ DF

Normal NOT selected on the Manual Panel:

☐ G1/G2 ☐ RR ☐

RR Button Selected:

☐ G1/G2 ☐ RR ☐

If UTC Reply Confirms are required for a Controller Fault (CF) OR for separate MC and RR replies, Conditioning must be used.

UTC Demand Dependent Forces

Clear Grid Data

Notes:
If no data is entered for a stage then a demand for any phases in that stage will be considered. The data specified on this screen will also change the screen CLF - Demands to Consider with Demand Dependent Stage Moves.

		Phases																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Stages	0																						
	1																						
	2																						
	3																						
	4																						
	5																						
	6																						
	7																						
	8																						
	9																						
	10																						
	11																						
	12																						

UTC and MOVA Detectors

UTC and MOVA Detectors

Detector Mapping

☒ Combined

Set Selection

☐☐☐☐☐

1	AIN1	2	BIN2	3	AX3	4	BX4	5		6		7	CIN7	8	CX8
9	CX9	10		11		12	DX12	13	DX13	14		15		16	EX16
17		18		19		20		21		22		23		24	
25		26		27		28		29		30		31		32	
33	KIN33	34	KX34	35		36	LIN36	37	LX37	38		39	NX39	40	
41	RSL41	42	SSL42	43		44		45		46		47		48	
49		50		51		52		53		54		55		56	
57		58		59		60		61		62		63		64	

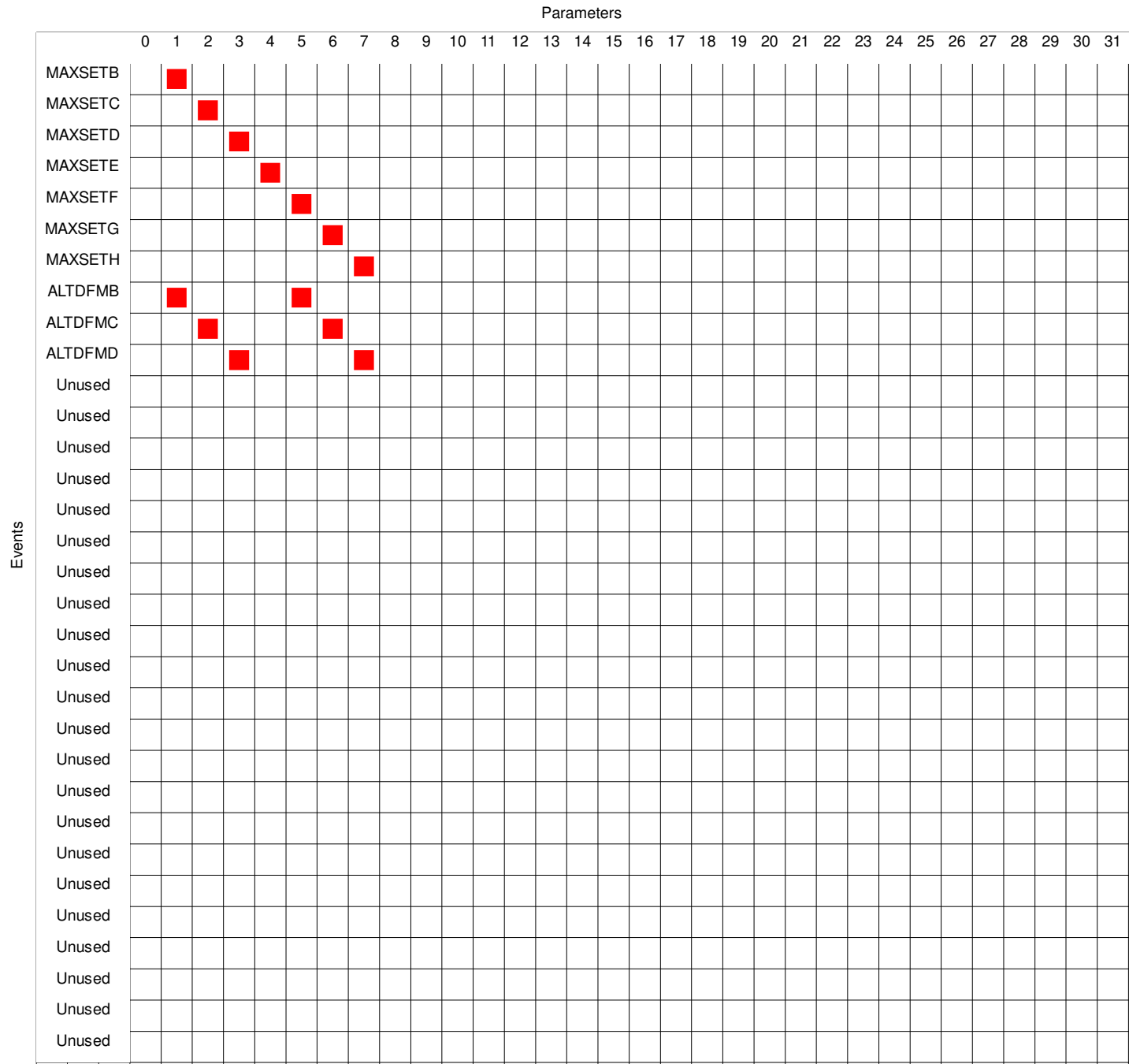
Note - only 32 detectors available on MOVA 4.0

MTC - Time Switch Parameters

MTC - Time Switch Parameters

	Type	Event		Type	Event
0	Alternate Max	MAXSETB	16	No Action	
1	Alternate Max	MAXSETC	17	No Action	
2	Alternate Max	MAXSETD	18	No Action	
3	Alternate Max	MAXSETE	19	No Action	
4	Alternate Max	MAXSETF	20	No Action	
5	Alternate Max	MAXSETG	21	No Action	
6	Alternate Max	MAXSETH	22	No Action	
7	Alternate DFM	ALTDFMB	23	No Action	
8	Alternate DFM	ALTDFMC	24	No Action	
9	Alternate DFM	ALTDFMD	25	No Action	
10	No Action		26	No Action	
11	No Action		27	No Action	
12	No Action		28	No Action	
13	No Action		29	No Action	
14	No Action		30	No Action	
15	No Action		31	No Action	

MTC - Time Switch Parameters Array



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Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

MTC - Day Type

MTC - Day Type

No.	Mon	Tue	Wed	Thu	Fri	Sat	Sun
0	☐	☐	☐	☐	☐	☒	☐
1	☐	☐	☐	☐	☐	☐	☒
2	☒	☐	☐	☐	☐	☐	☐
3	☐	☒	☐	☐	☐	☐	☐
4	☐	☐	☒	☐	☐	☐	☐
5	☐	☐	☐	☒	☐	☐	☐
6	☐	☐	☐	☐	☒	☐	☐
7	☒	☒	☒	☒	☒	☒	☒
8	☒	☒	☒	☒	☒	☒	☐
9	☒	☒	☒	☒	☒	☐	☐
10	☐	☐	☐	☐	☐	☐	☐
11	☐	☐	☐	☐	☐	☐	☐
12	☐	☐	☐	☐	☐	☐	☐
13	☐	☐	☐	☐	☐	☐	☐
14	☐	☐	☐	☐	☐	☐	☐
15	☐	☐	☐	☐	☐	☐	☐

MTC - Timetable

MTC - Timetable

View Timetable Settings

☒ 0 - 15☐ 16 - 31☐ 32 - 47☐ 48 - 63

No.	Day Type	Time	Description	Function Code	Plan/Parameter
0	9	07:00:00	MaxsetA and DFM setA	2	0
1	9	09:30:00	Maxset B and DFM set B	2	1
2	9	16:00:00	Maxset C and DFM set C	2	2
3	9	18:30:00	Maxset D and DFM set D	2	3
4	0	09:00:00	Maxset E and DFM setA	2	4
5	0	18:00:00	Maxset F and DFM set F	2	5
6	1	10:00:00	Maxset G and DFM set G	2	6
7	1	19:00:00	Maxset H and DFM set H	2	6
8	0			0	0
9	0			0	0
10	0			0	0
11	0			0	0
12	0			0	0
13	0			0	0
14	0			0	0
15	0			0	0

Function Codes:

0 = Isolate From CLF

1 = Introduce a CLF Plan

2 = Introduce a Parameter
(Combination of event switches)

3 = Selects an Individual event
switch to be set

4 = Selects an Individual event
switch to be cleared.

LMU - General

LMU - General

Lamp Monitoring - LMU Voltage

48

Red Lamp Monitoring

Max Red Bulb Wattage

First Red Lamp Fault Speed

2

☒ RLF2 Cancels RLM additional Intergreens

☒ RLF2 Only Cleared by RFL = 1

☐ RLF1 Only Cleared by RFL = 1

RLM Additional Intergreen Handset Limits

Minimum

2

Maximum

10

Streams with Phase BlackOut on RLF2

☐ 0

☐ 1

☐

☐

☐

☐

☐

☐

Works Order : 460917142
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Integral LMU Onboard Sensors

Integral LMU Onboard Sensors

No. of LSLS cards fitted
3

HPU Connection
1

Sensor Configuration For LSLS 1 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
A	Red	1	As Seq.	N/A	N/A		
A	Amber	1	As Seq.	N/A	N/A		
A	Green	1	As Seq.	N/A	N/A		
B	Green	2	As Seq.	N/A	N/A		
N/A	N/A			N/A	N/A		
N/A	N/A			N/A	N/A		
C	Red	3	As Seq.	N/A	N/A		
C	Amber	3	As Seq.	N/A	N/A		
C	Green	3	As Seq.	N/A	N/A		
D	Red	4	As Seq.	N/A	N/A		
D	Amber	4	As Seq.	N/A	N/A		
D	Green	4	As Seq.	N/A	N/A		
E	Red	5	As Seq.	N/A	N/A		
E	Amber	5	As Seq.	N/A	N/A		
E	Green	5	As Seq.	N/A	N/A		
N/A	N/A			N/A	N/A		

Note : A(*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Integral LMU Onboard Sensors

Integral LMU Onboard Sensors

No. of LSLS cards fitted
3

HPU Connection
1

Sensor Configuration For LSLS 2 (Cabinet 1)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
F	Red	6	R,G	J	Red	14	R,G
F	Amber	7	Wait	J	Amber	15	Wait
F	Green	6	R,G	J	Green	14	R,G
F	Green	N/A		J	Green	N/A	
G	Red	8	R,G	N/A	N/A		
G	Amber	9	Wait	N/A	N/A		
G	Green	8	R,G	N/A	N/A		
G	Green	N/A		N/A	N/A		
H	Red	10	R,G	N/A	N/A		
H	Amber	11	Wait	N/A	N/A		
H	Green	10	R,G	N/A	N/A		
H	Green	N/A		N/A	N/A		
I	Red	12	R,G	N/A	N/A		
I	Amber	13	Wait	N/A	N/A		
I	Green	12	R,G	N/A	N/A		
I	Green	N/A		N/A	N/A		

Note : A(*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
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Integral LMU Onboard Sensors

Integral LMU Onboard Sensors

No. of LSLS cards fitted
3

HPU Connection
1

Sensor Configuration For LSLS 3 (Cabinet 1) (Reversed)

Phase	Aspect	Sensor #	Sensor Type	Phase	Aspect	Sensor #	Sensor Type
K	Red	16	As Seq.	S	Amber	27	As Seq.
K	Amber	16	As Seq.	S	Green	27	As Seq.
K	Green	16	As Seq.	N/A	N/A		
L	Red	17	As Seq.	N/A	N/A		
L	Amber	17	As Seq.	O	Red	20	R,G
L	Green	17	As Seq.	O	Amber	21	Wait
M	Green	18	As Seq.	O	Green	20	R,G
N/A	N/A			O	Green	N/A	
N/A	N/A			P	Red	22	R,G
N	Red	19	As Seq.	P	Amber	23	Wait
N	Amber	19	As Seq.	P	Green	22	R,G
N	Green	19	As Seq.	P	Green	N/A	
R	Red	26	As Seq.	Q	Red	24	R,G
R	Amber	26	As Seq.	Q	Amber	25	Wait
R	Green	26	As Seq.	Q	Green	24	R,G
S	Red	27	As Seq.	Q	Green	N/A	

Note : A(*) character next to a sensor number indicates that the sensor would also be available on the External sensors screen. Please be sure you wish to use these sensors here, as they will then become unavailable for Regulatory Signs.

Integral LMU External Sensors for Regulatory Signs

Integral LMU External Sensors for Regulatory Signs

External Sensors (1)

Sensor	Sensor Type
96	Regulatory Sign
95	Regulatory Sign
94	Regulatory Sign
93	Regulatory Sign

External Sensors (2)

Sensor	Sensor Type
92	Regulatory Sign
91	Regulatory Sign
90	Regulatory Sign
89	Regulatory Sign

External Sensors (3)

Sensor	Sensor Type
88	Regulatory Sign
87	Regulatory Sign
86	Regulatory Sign
85	Regulatory Sign

External Sensors (4)

Sensor	Sensor Type
--------	-------------

External Sensors (5)

Sensor	Sensor Type
--------	-------------

External Sensors (6)

Sensor	Sensor Type
--------	-------------

Note: Sensors which have been used as Onboard sensors will not be available here.

Last Modified 11/08/2015, Issue 1.0.1

Form Ref: 4.5.3

LMU Sensor Load Types

LMU Sensor Load Types

Screen Select

1 of 3

Sensor	Phase	Sensor Type	LED R+W	Load Type	LLF Profile
1	A	As Seq.	Auto	1: Siemens Helios ELV	
2	B	As Seq.	Auto	1: Siemens Helios ELV	
3	C	As Seq.	Auto	1: Siemens Helios ELV	
4	D	As Seq.	Auto	1: Siemens Helios ELV	
5	E	As Seq.	Auto	1: Siemens Helios ELV	
6	F	R,G	Auto	1: Siemens Helios ELV	
7	F	Wait	Auto	5: Siemens LED Wait	
8	G	R,G	Auto	1: Siemens Helios ELV	
9	G	Wait	Auto	5: Siemens LED Wait	
10	H	R,G	Auto	1: Siemens Helios ELV	
11	H	Wait	Auto	5: Siemens LED Wait	
12	I	R,G	Auto	1: Siemens Helios ELV	
13	I	Wait	Auto	5: Siemens LED Wait	
14	J	R,G	Auto	1: Siemens Helios ELV	
15	J	Wait	Auto	5: Siemens LED Wait	
16	K	As Seq.	Auto	1: Siemens Helios ELV	

LMU Sensor Load Types

LMU Sensor Load Types

Screen Select

2 of 3

Sensor	Phase	Sensor Type	LED R+W	Load Type	LLF Profile
17	L	As Seq.	Auto	1: Siemens Helios ELV	
18	M	As Seq.	Auto	1: Siemens Helios ELV	
19	N	As Seq.	Auto	1: Siemens Helios ELV	
20	O	R,G	Auto	1: Siemens Helios ELV	
21	O	Wait	Auto	5: Siemens LED Wait	
22	P	R,G	Auto	1: Siemens Helios ELV	
23	P	Wait	Auto	5: Siemens LED Wait	
24	Q	R,G	Auto	1: Siemens Helios ELV	
25	Q	Wait	Auto	5: Siemens LED Wait	
26	R	As Seq.	Auto	1: Siemens Helios ELV	
27	S	As Seq.	Auto	1: Siemens Helios ELV	
85	N/A	Regulatory Sign	Auto	7: AGD PED Demand Indicator	
86	N/A	Regulatory Sign	Auto	7: AGD PED Demand Indicator	
87	N/A	Regulatory Sign	Auto	7: AGD PED Demand Indicator	
88	N/A	Regulatory Sign	Auto	7: AGD PED Demand Indicator	
89	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	

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LMU Sensor Load Types

LMU Sensor Load Types

Screen Select

3 of 3

Sensor	Phase	Sensor Type	LED R+W	Load Type	LLF Profile
90	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
91	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
92	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
93	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
94	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
95	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	
96	N/A	Regulatory Sign	Auto	4: Siemens ELV Regulatory Sign	

RLM Additional Intergreens

		Phases Delayed																					
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Phases with RLF1	A						2			2	2												
	B																						
	C							2		2	2												
	D						2	2		2													
	E						2			2	2												
	F																						
	G																						
	H																						
	I																						
	J																						
	K																2	2	2				
	L															2	2	2					
	M																						
	N																2	2	2				
	O																						
	P																						
	Q																						
	R																2	2	2				
	S																2	2	2				
	T																						
	U																						
	V																						

Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

RLM Phase Inhibits

Phases Inhibited/Black-Out

[illegible]

Phases with RLF2

Hurry Call

Hurry Call

Hurry Call	Stage Called	Call Input Name	Cancel Input Name	Confirm Output Name	Delay Time	Hold Time	Prevent Time
0	1	*SCRT1			0	5	60
1	7	*SCRT7			0	5	60
2					0	0	0
3					0	0	0
4					0	0	0
5					0	0	0
6					0	0	0
7					0	0	0

Hurry Call Limit Values

	Min.	Max.
Call Delay	0	255
Call Hold	0	255
Call Prevent	0	255

Manual Panel

Manual Panel

Stage Buttons and LEDs

Button No.	Title	Called Stage for Stream							
		0	1	2	3	4	5	6	7
0	All Red	0	6						
1	Warrington Road	1	7						
2	Warrington Road Right Turn	2	8						
3	Hospital Exit and Holt Lane	3	10						
4	Hospital Exit and North Access	3	9						
5	Longview Road and Holt Lane	4	10						
6	Longview Road and South Access	4	11						
7	Pedestrians	5	12						

General LEDs

	AUX 1	AUX 2	AUX 3	AUX 4 (Hurry Call)	AUX 5 (Higher Priority)
Conditioned	☒	☒	☒	☐	☒

General Buttons

	None	SW1	SW2	SW3
Momentary		☒	☒	☐
Dim Override	☒	☐	☐	☐
RR	☒	☐	☐	☐

Manual Signals On

☐ Immediate Signals On

☒ As Start-Up

Manual Mode Enable

☒ Always

☐ When Handset Plugged in (Note 1)

☐ When 'MND' Command Entered

NOTE:
For this to operate Special Conditioning is required.

Mode Select Switches Disabled

☐ VA ☐ Fixed Time ☐ CLF

Manual Mode - Optional Phases Appearance

Manual Mode - Optional Phases Appearance

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Never Appears	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Demand Dependant	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Always Appears	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒	☒
	Q	R	S	T	U	V	W	X	Y	Z	A2	B2	C2	D2	E2	F2
Never Appears	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Demand Dependant	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Always Appears	☒	☒	☒	☒	☒	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Reserve State

Reserve State

	Stream	0	1	2	3	4	5	6	7
Entry	Go to Switch	☐	☐	☐	☐	☐	☐	☐	☐
	Off Stage	☐	☐	☐	☐	☐	☐	☐	☐
Timeout (seconds)	Part Time on App	☐	☐	☐	☐	☐	☐	☐	☐
	Failure or Timeout	☐	☐	☐	☐	☐	☐	☐	☐
Limited Time	Fixed Time	☒	☒	☒	☒	☒	☒	☒	☒
	Part Time	☐	☐	☐	☐	☐	☐	☐	☐
	Hold Stage	☐	☐	☐	☐	☐	☐	☐	☐
After Timeout	Fixed Time	☒	☒	☒	☒	☒	☒	☒	☒
	Part Time	☐	☐	☐	☐	☐	☐	☐	☐
	Hold Stage	☐	☐	☐	☐	☐	☐	☐	☐

Global Settings

☒ Use Defaults

☐

Timeouts

0 = Use Firmware default

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Special Conditioning

```
; T800 SPECIAL FACILITIES
; -----

DOORSW=ESPTX0 ; DOOR SWITCH ALSO SENT ALONG SERIAL LINK

MAXSETB+MAXSETF=ESPTX1 ; MAXSET INFORMATION ALSO SENT ALONG SERIAL LINK
MAXSETC+MAXSETG=ESPTX2
MAXSETD+MAXSETH=ESPTX3

TRUE=ESPTX4 ; FLAG TO DETECT SERIAL LINK DISCONNECTION

(NOT FFH22).(LMUINHF+LMUINHG+LMUINHH+LMUINHI+LMUINHJ):::+=UCST1
                                     *+=UCST2
                                     *+=UCST3
                                     *+=UCST4
                                     *+=UCST5

(NOT FFH22).(LMUINHO+LMUINHP+LMUINHQ):::+=UCST7 ; DEMAND ALL STAGES IF A DOUBLE RED FAIL JUST CLEARED
                                     *+=UCST8 ; BUT PEDESTRIAN PHASE(S) STILL INHIBITED
                                     *+=UCST9
                                     *+=UCST10
                                     *+=UCST11
                                     *+=UCST12

(CNDTMA92+CFE63).(CNDTMA82+CFE62)=LAMPS ; LAMPS ON CONFIRM TO OMU


; SPECIAL WORKING MODE
; -----

CFE63=1PTSTRM0 ; STREAM 0 ENABLED UNLESS CFE63=1
CFE62=1PTSTRM1 ; STREAM 1 ENABLED UNLESS CFE62=1


; CONTROL READY BIT STREAM 0
; -----

IFT 1SCRT0+CNDTER94 THN ; START CRB PULSE TIMER IF CRB DELAY TIMER
RUN <95> ; JUST TIMED OFF OR IF CONTROLLER HAS JUST
END ; DROPPED OFF MOVA CONTROL

IFT (MODE0 EQL <6>) THN ; THIS BLOCK OF CONDITIONING WILL PULSE CRB BIT
TRUE=1SCRT0 ; FOR PIR95 SECONDS EVERY PIR94 SECONDS IF MOVA IS
; NOT IN CONTROL
CNDTMA92.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW3))=MOVACRB ; IT WILL ALSO DROP CRB IF LAMPS ARE OFF OR NORMAL
ELS ; NOT SELECTED OR SW3 PRESSED
FALSE=1SCRT0
CNDTMA92.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW3+CNDTMA95))=MOVACRB
END

IFT (NOT MOVACRB)+CNDTER95 THN ; RESET CRB DELAY TIMER IF CRB NOT PRESENT
RUN <94> ; OR IF CRB PULSE TIMER HAS JUST FINISHED
END

NOT CNDTMA93=DISUTC0 ; MOVA OVERRIDE TIMER WILL DISABLE MOVA IF IT HAS
IFT MOVACRB THN ; NOT RELEASED CONTROL AFTER LOSING CRB
RUN <93>
```

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Special Conditioning

```
END

IFT PRSLMPRA+PRSLMPAA+PRSLMPGA THN ; LAMPS SUPPLY DELAY TIMER
RUN <92>
END

; CONTROL READY BIT STREAM 1
; -----

IFT 1SCRT1+CNDTER84 THN ; START CRB PULSE TIMER IF CRB DELAY TIMER
RUN <85> ; JUST TIMED OFF OR IF CONTROLLER HAS JUST
END ; DROPPED OFF MOVA CONTROL

IFT (MODE1 EQL <6>) THN ; THIS BLOCK OF CONDITIONING WILL PULSE CRB BIT
TRUE=1SCRT1 ; FOR PIR95 SECONDS EVERY PIR94 SECONDS IF MOVA IS
; NOT IN CONTROL

CNDTMA82.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW3))=MOVACON32 ; IT WILL ALSO DROP CRB IF LAMPS ARE OFF OR NORMAL
ELS ; NOT SELECTED OR SW3 PRESSED
FALSE=1SCRT1
CNDTMA82.(NOT(SSMAN+SSVA+SSFIX+SSCLF+MAUXSW3+CNDTMA85))=MOVACON32
END

IFT (NOT MOVACON32)+CNDTER85 THN ; RESET CRB DELAY TIMER IF CRB NOT PRESENT
RUN <84> ; OR IF CRB PULSE TIMER HAS JUST FINISHED
END

NOT CNDTMA83=DISUTC1 ; MOVA OVERRIDE TIMER WILL DISABLE MOVA IF IT HAS
IFT MOVACON32 THN ; NOT RELEASED CONTROL AFTER LOSING CRB
RUN <83>
END

IFT PRSLMPRK+PRSLMPAK+PRSLMPGK THN ; LAMPS SUPPLY DELAY TIMER
RUN <82>
END

(MODE0 EQL <6>)=1SCRT2
(MODE1 EQL <6>)=1SCRT3

IFT (MODE0 EQL <6>) XOR (MODE1 EQL <6>) THN ; IF MOVA IS IN CONTROL ON ONLY ONE STREAM
INC 2SCRTCH31 ; FLASH THE HIGHER PRIORITY L.E.D. ON THE
2SCRT248=MIL17 ; MANUAL PANEL OTHERWISE THE LED IS FULLY
ELS ; LIT IF BOTH STREAMS ARE RUNNING MOVA
(MODE0 EQL <6>).(MODE1 EQL <6>)=MIL17
END

MAUXSW3=MIL05 ; AUX3 LED CONFIRMS MOVA DISABLED BY SW3

; INTERSTREAM LINKING
; -----

IFT STAGE1.STAGE7.(NOT(1SCRT4+1SCRT5)) THN ; WHEN STAGES 1 AND 7 HAVE BOTH REACHED GREEN
TRUE::+=ROUGH1 ; THE FORCE BITS FOR THESE TWO STAGES ARE
*+=ROUGH7 ; PULSED FOR 200ms TO FORCE A MAX GREEN RESET
*+=1SCRT4
```

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Special Conditioning

<pre> *=+1SCRT5 FALSE:=DISUTC0 *=DISUTC1 ELS (F1)=ROUGH1 (F7)=ROUGH7 END STAGE1=.1SCRT4 STAGE7=.1SCRT5 IFT PHASEL.EXOL THN RUN <34> TRUE:=+EXOC *=+EXCC ELS PHASEC.CNDTMA34:=+EXOC *=+EXCC END IFT PHASEA.EXOA THN RUN <35> TRUE:=+EXOK *=+EXCK ELS PHASEK.CNDTMA35:=+EXOK *=+EXCK END VRDMNDA+ATOROW+=UCPHK VRDMNDL+LTOROW+=UCPHC ; QUEUE DETECTION ; ----- PHASEL.LSL38=SCRT10 NOT SCRT10=ROUGH10 CCTO1+=UCPHM CCTO2+MAUXSW1:=SCRT1 *=+MOVADET29 CCTO3+MAUXSW2:=SCRT7 *=+MOVADET61 ; STOP LINE LOOPS ; ----- IFT ASL5.(NOT CNDTMA0) THN RUN <1> TRUE=+2SCRT0 END IFT (NOT ASL5).(NOT CNDTMA1) THN</pre>	<pre> ; THIS RESET CAN ONLY OCCUR ONCE PER CYCLE ; AN EXTENSION FOR PHASE L WILL ALSO EXTEND ; PHASE C VIA THE REPEAT PULSE EXTENSION TIMER ; AN EXTENSION FOR PHASE A WILL ALSO EXTEND ; PHASE K VIA THE REPEAT PULSE EXTENSION TIMER ; PHASE A DEMAND ALSO DEMANDS PHASE K ; PHASE L DEMAND ALSO DEMANDS PHASE C ; LSL38 IS A CALL/CANCEL LOOP FOR PHASE M BUT ; ONLY OPERATES DURING GREEN OF PHASE L ; LOOP OCCUPIED AFTER DELAY CALLS GREEN ARROW ; QUEUE ON CIN7 OR SW1 HURRY CALLS STAGE 1 ; AND SETS MOVA 29 ; QUEUE ON KIN33 OR SW2 HURRY CALLS STAGE 7 ; AND SETS MOVA 61 ; CALL/CANCEL FACILITY FOR ASL5 LOOP</pre>
---	--

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```
RUN <0>
FALSE=.2SCRT0
END

IFT PHASEA THN                                ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
ASL5=+MOVADET5
ELS                                            ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT0:=+MOVADET5                             ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
      *=+LCPHA                               ; AFTER THE CALL DELAY
END

IFT BSL6.(NOT CNDTMA2) THN                    ; CALL/CANCEL FACILITY FOR BSL6 LOOP
RUN <3>
TRUE=+2SCRT1
END

IFT (NOT BSL6).(NOT CNDTMA3) THN
RUN <2>
FALSE=.2SCRT1
END

IFT PHASEA THN                                ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
BSL6=+MOVADET6
ELS                                            ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT1:=+MOVADET6                             ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
      *=+LCPHA                               ; AFTER THE CALL DELAY
END

IFT CSL10.(NOT CNDTMA4) THN                   ; CALL/CANCEL FACILITY FOR CSL10 LOOP
RUN <5>
TRUE=+2SCRT2
END

IFT (NOT CSL10).(NOT CNDTMA5) THN
RUN <4>
FALSE=.2SCRT2
END

IFT PHASEC THN                                ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
CSL10=+MOVADET10
ELS                                            ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT2:=+MOVADET10                             ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
      *=+LCPHC                               ; AFTER THE CALL DELAY
END

IFT CSL11.(NOT CNDTMA6) THN                   ; CALL/CANCEL FACILITY FOR CSL11 LOOP
RUN <7>
TRUE=+2SCRT3
END

IFT (NOT CSL11).(NOT CNDTMA7) THN
RUN <6>
FALSE=.2SCRT3
END

IFT PHASEC THN                                ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
CSL11=+MOVADET11
ELS                                            ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
```

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2SCRT3:=+MOVADET11
 *+=+LCPHC
END

IFT DSL14.(NOT CNDTMA8) THN
RUN <9>
TRUE=+2SCRT4
END

IFT (NOT DSL14).(NOT CNDTMA9) THN
RUN <8>
FALSE=.2SCRT4
END

IFT PHASED THN
DSL14:=+MOVADET14
ELS
2SCRT4:=+MOVADET14
 *+=+LCPHD
END

IFT DSL15.(NOT CNDTMA10) THN
RUN <11>
TRUE=+2SCRT5
END

IFT (NOT DSL15).(NOT CNDTMA11) THN
RUN <10>
FALSE=.2SCRT5
END

IFT PHASED THN
DSL15:=+MOVADET15
ELS
2SCRT5:=+MOVADET15
 *+=+LCPHD
END

IFT ESL17.(NOT CNDTMA12) THN
RUN <13>
TRUE=+2SCRT6
END

IFT (NOT ESL17).(NOT CNDTMA13) THN
RUN <12>
FALSE=.2SCRT6
END

IFT PHASEE THN
ESL17:=+MOVADET17
ELS
2SCRT6:=+MOVADET17
 *+=+LCPHE
END

IFT KSL35.(NOT CNDTMA14) THN
RUN <15>

; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
; AFTER THE CALL DELAY

; CALL/CANCEL FACILITY FOR DSL14 LOOP

; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
; AFTER THE CALL DELAY

; CALL/CANCEL FACILITY FOR DSL15 LOOP

; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
; AFTER THE CALL DELAY

; CALL/CANCEL FACILITY FOR ESL17 LOOP

; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
; AFTER THE CALL DELAY

; CALL/CANCEL FACILITY FOR KSL35 LOOP

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Special Conditioning

```
TRUE=+2SCRT8
END

IFT (NOT KSL35).(NOT CNDTMA15) THN
RUN <14>
FALSE=.2SCRT8
END

IFT PHASEK THN ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
KSL35=+MOVADET35
ELS ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT8:=+MOVADET35 ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
*+=LCPHK ; AFTER THE CALL DELAY
END

IFT LSL38.(NOT CNDTMA16) THN ; CALL/CANCEL FACILITY FOR LSL38 LOOP
RUN <17>
TRUE=+2SCRT9
END

IFT (NOT LSL38).(NOT CNDTMA17) THN
RUN <16>
FALSE=.2SCRT9
END

IFT PHASEL THN ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
LSL38=+MOVADET38
ELS ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT9:=+MOVADET38 ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
*+=LCPHL ; AFTER THE CALL DELAY
END

IFT NSL40.(NOT CNDTMA18) THN ; CALL/CANCEL FACILITY FOR LSL38 LOOP
RUN <19>
TRUE=+2SCRT10
END

IFT (NOT NSL40).(NOT CNDTMA19) THN
RUN <18>
FALSE=.2SCRT10
END

IFT PHASEN THN ; IF PHASE IS AT GREEN LOOP GOES DIRECT TO MOVA
NSL40=+MOVADET40
ELS ; IF PHASE IS NOT AT GREEN THE LOOP GOES TO MOVA
2SCRT10:=+MOVADET40 ; AFTER CALL DELAY AND INSERTS A LATCHED DEMAND
*+=LCPHN ; AFTER THE CALL DELAY
END

; MOVA LINKING STREAM 0 TO STREAM 1
; -----

IFT (NOT CNDTMA20).2SCRT16 THN
RUN <21>
FALSE=.2SCRT16
END
```

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```
IFT PHASEA.(NOT(2SCRT16+2SCRT17)) THN ; MOVA DETECTOR 31 IS PULSED A SHORT TIME AFTER
RUN <20> ; PHASE A GAINS GREEN PROVIDING CFE20=255 HAS BEEN
TRUE:+=2SCRT16 ; ENTERED ON THE HANDSET
      +=2SCRT17
END

PHASEA=.2SCRT17

CNDTMA21.CFE20+=MOVADET31

IFT PHASEA.(NOT CNDTMA22) THN ; CALL/CANCEL FACILITY FOR MOVA DETECTOR 32
RUN <23>
TRUE+=2SCRT18
END

IFT (NOT PHASEA).(NOT CNDTMA23) THN
RUN <22>
FALSE=.2SCRT18
END

2SCRT18.((NOT CFE22)+EXOK+EXTAK).PHASEA+=MOVADET32 ; MOVA 32 SET AFTER DELAY DURING PHASE A GREEN
; IF CFE22=0, (default), OR IF EXTENSIONS PRESENT
; FOR PHASE K

2SCRT18.((NOT CFE23)+EXOK+EXTAK).(NOT PHASEA)=+MOVADET32; MOVA 32 SET AFTER DELAY AFTER PHASE A GREEN
; IF CFE23=0, (default), OR IF EXTENSIONS PRESENT
; FOR PHASE K

IFT (NOT CNDTMA24).2SCRT19 THN
RUN <25>
FALSE=.2SCRT19
END

IFT PHASED.(NOT(2SCRT19+2SCRT20)) THN ; MOVA DETECTOR 30 IS PULSED A SHORT TIME AFTER
RUN <24> ; PHASE D GAINS GREEN PROVIDING CFE25=255 HAS BEEN
TRUE:+=2SCRT19 ; ENTERED ON THE HANDSET
      +=2SCRT20
END

PHASED=.2SCRT20

CNDTMA25.CFE24+=MOVADET30

; MOVA LINKING STREAM 0 TO STREAM 1
; -----

IFT (NOT CNDTMA26).2SCRT24 THN
RUN <27>
FALSE=.2SCRT24
END

IFT PHASEL.(NOT(2SCRT24+2SCRT25)) THN ; MOVA DETECTOR 63 IS PULSED A SHORT TIME AFTER
RUN <26> ; PHASE L GAINS GREEN PROVIDING CFE26=255 HAS BEEN
TRUE:+=2SCRT24 ; ENTERED ON THE HANDSET
      +=2SCRT25
END
```

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```
PHASEL=.2SCRT25

CNDTMA27.CFE26=+MOVADET63

IFT PHASEL.(NOT CNDTMA28) THN                                ; CALL/CANCEL FACILITY FOR MOVA DETECTOR 32
RUN <29>
TRUE=+2SCRT26
END

IFT (NOT PHASE1).(NOT CNDTMA29) THN
RUN <28>
FALSE=.2SCRT26
END

2SCRT26.((NOT CFE28)+EXOC+EXTAC).PHASEL=+MOVADET64           ; MOVA 64 SET AFTER DELAY DURING PHASE L GREEN
                                                                ; IF CFE28=0, (default), OR IF EXTENSIONS PRESENT
                                                                ; FOR PHASE C
2SCRT26.((NOT CFE29)+EXOC+EXTAC).(NOT PHASE1)=+MOVADET64    ; MOVA 64 SET AFTER DELAY AFTER PHASE L GREEN
                                                                ; IF CFE29=0, (default), OR IF EXTENSIONS PRESENT
                                                                ; FOR PHASE C

IFT (NOT CNDTMA30).2SCRT27 THN
RUN <31>
FALSE=.2SCRT27
END

IFT PHASEN.(NOT(2SCRT27+2SCRT28)) THN                        ; MOVA DETECTOR 62 IS PULSED A SHORT TIME AFTER
RUN <30>                                                        ; PHASE N GAINS GREEN PROVIDING CFE30=255 HAS BEEN
TRUE;=+2SCRT27                                                ; ENTERED ON THE HANDSET
    *=+2SCRT28
END

PHASEN=.2SCRT28

CNDTMA31.CFE30=+MOVADET62

; ADDITIONAL MOVA REPLIES
; -----

VRDMNDF=+MOVADET18                                           ; MOVA 18 SET FOR PHASE F DEMAND
VRDMNDG=+MOVADET19                                           ; MOVA 19 SET FOR PHASE G DEMAND
VRDMNDH=+MOVADET20                                           ; MOVA 20 SET FOR PHASE H DEMAND
VRDMNDI=+MOVADET21                                           ; MOVA 21 SET FOR PHASE I DEMAND
VRDMNDJ=+MOVADET22                                           ; MOVA 22 SET FOR PHASE J DEMAND
VRDMNDO=+MOVADET43                                           ; MOVA 43 SET FOR PHASE O DEMAND
VRDMNDP=+MOVADET44                                           ; MOVA 44 SET FOR PHASE P DEMAND
VRDMNDQ=+MOVADET45                                           ; MOVA 45 SET FOR PHASE Q DEMAND

NOT PHASEA=GA                                                ; PHASE GREEN REPLIES
NOT PHASEL=GL

; REVERSION DELAY STREAM 0
```

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```
; -----  
  
    (NOT CNDTMA32):.(MODE0 EQL <2>)=+UCST0                ; REVERSION DELAY TIMER EXPIRING DEMANDS STAGE 0  
        *. (NOT STAGE0)=+MOVADET23                        ; AND SETS MOVA 23  
  
    IFT (VRDMNDA+VRDMNDB+VRDMNDC+VRDMNDD+VRDMNDE+VRDMNDF+VRDMNDG+VRDMNDH) THN  
    RUN <32>  
    END  
  
    IFT (VRDMNDI+VRDMNDJ+VRDMNDK) THN  
    RUN <32>  
    END  
  
    IFT (EXOA+EXTAA+EXOB+EXTAB+EXOC+EXTAC+EXOD+EXTAD+EXOE+EXTAE) THN  
    RUN <32>  
    END  
  
    IFT NOT (STAGE1+STAGE2+STAGE3+STAGE4+STAGE5) THN        ; ANY PHASE/STAGE DEMANDED AND/OR EXTENDING  
    RUN <32>                                                ; WILL RESET DELAYED REVERSION TIMER  
    END  
  
; REVERSION DELAY STREAM 1  
; -----  
  
    (NOT CNDTMA33):.(MODE1 EQL <2>)=+UCST6                ; REVERSION DELAY TIMER EXPIRING DEMANDS STAGE 6  
        *. (NOT STAGE6)=+MOVADET46                        ; AND SETS MOVA 46  
  
    IFT (VRDMNDL+VRDMNDM+VRDMNDN+VRDMNDO+VRDMNDP+VRDMNDQ+VRDMNDR+VRDMNDS) THN  
    RUN <33>  
    END  
  
    IFT (EXOK+EXTAK+EXOL+EXTAL+EXOM+EXTAM+EXON+EXTAN+EXOR+EXTAR+EXOS+EXTAS) THN  
    RUN <33>  
    END  
  
    IFT NOT (STAGE7+STAGE8+STAGE9+STAGE10+STAGE11+STAGE12) THN  
    RUN <33>  
    END  
  
; SPECIAL STAGE RESTRICTIONS  
; -----  
  
    VRDMNDF.(STAGE3+STAGE4+STAGE5)=+UCST1                ; DEMAND DEPENDENT PHASE RESTRICTIONS  
    VRDMNDG.(STAGE2+STAGE5)=+UCST1  
    VRDMNDH.(STAGE1+STAGE2+STAGE4+STAGE5)=+UCST3  
    VRDMNDI.(STAGE3+STAGE5)=+UCST1  
  
    (MODE0 EQL <2>):.(NOT (VRDMNDB+VRDMNDG+VRDMND2))=PRVST2 ; PREVENT STAGE 2 UNLESS A DEMAND EXISTS FOR  
                                                                ; PHASE B/G/2  
  
        *. (NOT (VRDMNDE+VRDMNDF+VRDMND4))=PRVST4        ; PREVENT STAGE 4 UNLESS A DEMAND EXISTS FOR  
                                                                ; PHASE E/F/4  
  
        *. (NOT (VRDMNDJ+VRDMND5))=PRVST5                ; PREVENT STAGE 5 UNLESS A DEMAND EXISTS FOR  
                                                                ; PHASE J/5
```

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; N.B. THE ABOVE PREVENTS ONLY APPLY DURING VA MODE

; MANUAL PANEL INDICATORS
; -----

MOVADET29=MIL22 ; LED 1 INDICATES MOVA 29 SET
MOVADET61=MIL23 ; LED 2 INDICATES MOVA 61 SET

Special Conditioning Timers

Special Conditioning Timers

Timers

0-31

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
0	3	0	255	☐	ASL5 Call Delay	16	3	0	255	☐	LSL38 Call Delay
1	0	0	255	☐	ASL5 Cancel Delay (Not Used)	17	0	0	255	☐	LSL38 Cancel Delay (Not Used)
2	3	0	255	☐	BSL6 Call Delay	18	3	0	255	☐	NSL40 Call Delay
3	0	0	255	☐	BSL6 Cancel Delay (Not Used)	19	0	0	255	☐	NSL40 Cancel Delay (Not Used)
4	3	0	255	☐	CSL10 Call Delay	20	8	0	255	☐	MOVA 31 Delay
5	0	0	255	☐	CSL10 (Cancel Delay (Not Used)	21	2	0	255	☐	MOVA 31 Pulse
6	3	0	255	☐	CSL11 Call Delay	22	10	0	255	☐	MOVA 32 Call Delay
7	0	0	255	☐	CSL11 Cancel Delay (Not Used)	23	8	0	255	☐	MOVA 32 Cancel Delay
8	3	0	255	☐	DSL14 Call Delay	24	8	0	255	☐	MOVA 30 Delay
9	0	0	255	☐	DSL14 Cancel Delay (Not Used)	25	2	0	255	☐	MOVA 30 Pulse
10	3	0	255	☐	DSL15 Call Delay	26	8	0	255	☐	MOVA 63 Delay
11	0	0	255	☐	DSL15 Cancel Delay (Not Used)	27	2	0	255	☐	MOVA 63 Pulse
12	3	0	255	☐	ESL17 Call Delay	28	10	0	255	☐	MOVA 64 Call Delay
13	0	0	255	☐	ESL17 Cancel Delay (Not Used)	29	8	0	255	☐	MOVA 64 Cancel Delay
14	3	0	255	☐	KSL35 Call Delay	30	8	0	255	☐	MOVA 62 Delay
15	0	0	255	☐	KSL35 Cancel Delay (Not Used)	31	2	0	255	☐	MOVA 62 Pulse

Special Conditioning Timers

Special Conditioning Timers

Timers

32-63

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
32	10	1	255	☐	Stream 0 Reversion Delay	48		0	255	☐	
33	10	1	255	☐	Stream 1 Reversion Delay	49		0	255	☐	
34	6.0	0.0	31.8	☒	Repeat Pulse Extension Stream 0	50		0	255	☐	
35	6.0	0.0	31.8	☒	Repeat Pulse Extension Stream 1	51		0	255	☐	
36		0	255	☐		52		0	255	☐	
37		0	255	☐		53		0	255	☐	
38		0	255	☐		54		0	255	☐	
39		0	255	☐		55		0	255	☐	
40		0	255	☐		56		0	255	☐	
41		0	255	☐		57		0	255	☐	
42		0	255	☐		58		0	255	☐	
43		0	255	☐		59		0	255	☐	
44		0	255	☐		60		0	255	☐	
45		0	255	☐		61		0	255	☐	
46		0	255	☐		62		0	255	☐	
47		0	255	☐		63		0	255	☐	

Special Conditioning Timers

Special Conditioning Timers

Timers

64-95

No	Value	Min	Max	200ms	Description	No	Value	Min	Max	200ms	Description
64		0	255	☐		80		0	255	☐	
65		0	255	☐		81		0	255	☐	
66		0	255	☐		82	1.0	1.0	5.0	☒	Lamps Off Delay Stream 1
67		0	255	☐		83	10.0	5.0	31.8	☒	MOVA Override Stream 1
68		0	255	☐		84	255	180	255	☐	MOVA Pulse Delay Stream 1
69		0	255	☐		85	2.0	1.0	31.8	☒	MOVA Pulse Timer Stream 1
70		0	255	☐		86		0	255	☐	
71		0	255	☐		87		0	255	☐	
72		0	255	☐		88		0	255	☐	
73		0	255	☐		89		0	255	☐	
74		0	255	☐		90		0	255	☐	
75		0	255	☐		91		0	255	☐	
76		0	255	☐		92	1.0	1.0	5.0	☒	Lamps Off Delay Stream 0
77		0	255	☐		93	10.0	5.0	31.8	☒	MOVA Override Stream 0
78		0	255	☐		94	255	180	255	☐	MOVA Pulse Delay Stream 0
79		0	255	☐		95	2.0	1.0	31.8	☒	MOVA Pulse Timer Stream 0

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Special Instructions

The intersection will be controlled by a 12 stage / 19 phase T950 ELV controller incorporating manual, V.A, fixed time to current maximums, C.L.F, two linked parallel stage streams, semi integral STC dual MOVA and remote monitoring, red and general lamp monitoring, timeswitched maximum green & DFM timings, unidirectional loops, delayed reversion, queue detection and a special part time facility. The C.L.F. is for possible future use.

For roadworks there is sometimes a requirement to switch off only one stream. CFE63=1 will switch off stream 0 and CFE62=1 will switch off stream 1.

The stop line loops on this junction will all act as delayed call loops for both V.A. and MOVA. Once their respective phases reach green the loops will operate normally. The stop line loops BSL6 and LSL38 will also act as call/cancel loops for their respective arrows but the call/cancel times will be different from the stop line function. Also LSL38 will not time its cancel delay until phase L is at green.

If the controller is not under MOVA control there is a reset max & repeat pulse facility between the two streams. When stages 1 & 7 are both at green the maximum greens will be reset, also phase A will repeat pulse to phase K and similarly phase L will repeat pulse to phase C. Timers are used for extensions.

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Special Instructions

In addition to the normal MOVA detector functions the following will also apply.

Higher priority is fully lit if both streams are under MOVA control but flashes if only one stream is under MOVA control.

Pedestrian demand for phase F sets MOVA 18
Pedestrian demand for phase G sets MOVA 19
Pedestrian demand for phase H sets MOVA 20
Pedestrian demand for phase I sets MOVA 21
Pedestrian demand for phase J sets MOVA 22
Pedestrian demand for phase O sets MOVA 43
Pedestrian demand for phase P sets MOVA 44
Pedestrian demand for phase Q sets MOVA 45

Demand for stage 0 after reversion delay sets MOVA 23
Demand for stage 6 after reversion delay sets MOVA 46

Queue detected on CIN7 will set MOVA 29 (It also hurry calls stage 1 if stream 0 is in VA mode) AUX 1 LED confirms
Queue detected on KIN33 will set MOVA 61 (It also hurry calls stage 7 if stream 1 is in VA mode) AUX 2 LED confirms

There are also Force, Hold & Clear signals between the two streams as follows.

FORCE:- When phase A goes to green MOVA 31 is pulsed after a delay. Initially disabled, use CFE20=1 to enable.

HOLD:- When phase A goes to green MOVA 32 is set after a delay. If CFE22=1 then also needs extensions on phase K.

CLEAR:- When phase A loses green MOVA32 is delayed from clearing. If CFE23=1 then also needs extensions on phase K

FORCE:-When phase D goes to green MOVA 30 is pulsed after a delay. Initially disabled, use CFE24=1 to enable.

FORCE:- When phase L goes to green MOVA 63 is pulsed after a delay. Initially disabled, use CFE26=1 to enable.

HOLD:- When phase L goes to green MOVA 64 is set after a delay. If CFE28=1 then also needs extensions on phase C.

CLEAR:- When phase L loses green MOVA64 is delayed from clearing. If CFE29=1 then also needs extensions on phase C

FORCE:-When phase N goes to green MOVA 62 is pulsed after a delay. Initially disabled, use CFE30=1 to enable.

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Special Instructions

SIEMENS ST900 INTERNAL DETECTOR BACKPLANE POWER AND SERIAL COMMUNICATION CONNECTION

(BACKPLANE 1)				(BACKPLANE 2)				NOTE 1	If more than one backplane power Linking between B/Planes to be made using the Black 24/0.2 PVC wire 998/4/200075/605
SERIAL CONNECTION RJ45 COMM'S CABLE				SERIAL CONNECTION RJ45 COMM'S CABLE					
PHS PCB PL2/4---(RJ45)----				BACKPLANE IN OUT -----(RJ45)-----					
BACKPLANE IN OUT -----(RJ45)-----				BACKPLANE IN OUT ----- etc					
POWER CONNECTION				POWER CONNECTION				NOTE 2	PHS RJ45 connections. It is recomended that the Detector Backplanes are cabled on one daisy-chain from the PHS and the IO cards are cabled on a separate daisy-chain from the PHS (ie do not mix IO cards and Backplanes on the same daisy-chain)
POWER +24V DC TBE 1-6---(RED)---				BACKPLANE IN+ OUT+ SK7 SK6----- (RED)-----					
0V TBE 7-12--(BLK)---				BACKPLANE IN+ OUT+ SK7 SK6 ----- etc					
POWER CONNECTION				POWER CONNECTION				NOTE 3	Card addressing (1 to 15) is shared between IO cards and Backplane Controllers.(ie if an IO card is set to address 1, then no Backplane Controller may use address 1)
AGD SUPPLY KIT 667/1/27006/008									
POWER TX TERM 24V----- (RED)---				BACKPLANE IN+ OUT+ SK7 SK6----- (RED)-----					
0V----- (BLK)---				BACKPLANE IN+ OUT+ SK7 SK6 ----- etc				NOTE 4	Address 0 must not be used on an IO card or on Backplane Controller
TX TERM 0V----- (BLK)---				BACKPLANE IN- OUT- SK7 SK6----- (BLK)-----					
				BACKPLANE IN- OUT- SK7 SK6 ----- etc					

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

SIEMENS ST900 INTERNAL DETECTOR BACKPLANE INSTRUCTIONS SHEET

DETECTOR BACKPLANE ADDRESS: 001
POSITION OF LOOP TERMINATION BOARD: 2LT1

LOOP DESIGNATION				
DET CARD "A"			DET CARD "A"	
No.	LOOP ID		TERMINATIONS	PANEL
1	AIN1		1 2LT1/A1L & A1R	UPPER
2	BIN2		2 2LT1/A2L & A2R	UPPER
3	AX3		3 2LT1/A3L & A3R	UPPER
4	BX4		4 2LT1/A4L & A4R	UPPER
DET CARD "B"			DET CARD "B"	
No.	LOOP ID		TERMINATIONS	PANEL
1	ASL5		1 2LT1/B1L & B1R	UPPER
2	BSL6		2 2LT1/B2L & B2R	UPPER
3	EX16		3 2LT1/B3L & B3R	UPPER
4	ESL17		4 2LT1/B4L & B4R	UPPER
DET CARD "C"			DET CARD "C"	
No.	LOOP ID		TERMINATIONS	PANEL
1	CX8		1 2LT1/C1L & C1R	UPPER
2	CX9		2 2LT1/C2L & C2R	UPPER
3	CSL10		3 2LT1/C3L & C3R	UPPER
4	CSL11		4 2LT1/C4L & C4R	UPPER
DET CARD "D"			DET CARD "D"	
No.	LOOP ID		TERMINATIONS	PANEL
1	DX12		1 2LT1/D1L & D1R	UPPER
2	DX13		2 2LT1/D2L & D2R	UPPER
3	DSL14		3 2LT1/D3L & D3R	UPPER
4	DSL15		4 2LT1/D4L & D4R	UPPER

N.B. L=L.H. TERMINAL R=R.H. TERMINAL

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

SIEMENS ST900 INTERNAL DETECTOR BACKPLANE INSTRUCTIONS SHEET

DETECTOR BACKPLANE ADDRESS: 002
POSITION OF LOOP TERMINATION BOARD: 2LT2

LOOP DESIGNATION				
DET CARD "A"		DET CARD "A"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	CIN7	1 2LT2/A1L & A1R	UPPER	
2	KIN33	2 2LT2/A2L & A2R	UPPER	
3	KX34	3 2LT2/A3L & A3R	UPPER	
4	KSL35	4 2LT2/A4L & A4R	UPPER	
DET CARD "B"		DET CARD "B"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	LIN36	1 2LT2/B1L & B1R	UPPER	
2	LX37	2 2LT2/B2L & B2R	UPPER	
3	LSL38	3 2LT2/B3L & B3R	UPPER	
4	Not In Use	4 2LT2/B4L & B4R	UPPER	
DET CARD "C"		DET CARD "C"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	NX39	1 2LT2/C1L & C1R	UPPER	
2	NSL40	2 2LT2/C2L & C2R	UPPER	
3	Not In Use	3 2LT2/C3L & C3R	UPPER	
4	Not In Use	4 2LT2/C4L & C4R	UPPER	
DET CARD "D"		DET CARD "D"		
No.	LOOP ID	TERMINATIONS	PANEL	
1	RSL41a	1 2LT2/D1L & D1R	UPPER	
2	RSL41b	2 2LT2/D2L & D2R	UPPER	
3	SSL42a	3 2LT2/D3L & D3R	UPPER	
4	SSL42b	4 2LT2/D4L & D4R	UPPER	

N.B. L=L.H. TERMINAL R=R.H. TERMINAL

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

T900 SERIAL I/O BOARD - INPUT PORTS

			INPUT NAME			INPUT NAME			
0	0	0	Phase F push buttons pole 1				12	12	12
1	1	1	Phase F push buttons poles 15 & 16				13	13	13
2	2	2	Phase G push buttons pole 12				14	14	14
3	3	3	Phase G push buttons poles 13 & 14				15	15	15
4	4	4	Phase H push buttons poles 9 & 10				16	16	16
5	5	5	Phase H push buttons pole 11				17	17	17
6	6	6	Phase I push buttons pole 6			Phase O push buttons pole 17	18	18	18
7	7	7	Phase I push buttons poles 7 & 8			Phase O push buttons pole 26	19	19	19
8	8	8	Phase J push buttons pole 2			Phase P push buttons pole 20	20	20	20
9	9	9	Phase J push buttons pole 3			Phase P push buttons pole 22	21	21	21
10	10	10				Phase Q push buttons pole 23	22	22	22
11	11	11				Phase Q push buttons pole 24	23	23	23

***** ***** SERIAL I/O BOARD No:-001 ***** *****									
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
			0 Volts - INPUT COMMON			0 Volts - INPUT COMMON			
***** ***** BOARD ADDRESS 003 ***** *****									

SPECIAL NOTE:-
***** Unless otherwise indicated ALL above ground detectors (MVD, kerbside & on crossing, etc) MUST be wired as open circuit for vehicle/pedestrian presence.

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

T900 SERIAL I/O BOARD - OUTPUT PORTS

***** ***** SERIAL I/O BOARD No:-001 ***** *****															
N/C	C	N/O	OUTPUT NAME					OUTPUT NAME				N/O	C	N/C	
---	---	---	-----					-----				---	---	---	
		X		X	LAMPS on confirm to OMU relay						O/P 8			X	

		X									O/P 8			X	

		X			O/P 1						O/P 9			X	

		X			O/P 1						O/P 9			X	

		X			O/P 2						O/P 10			X	

		X			O/P 2						O/P 10			X	

		X			O/P 3						O/P 11			X	

		X			O/P 3						O/P 11			X	

***** ***** FOR OUTPUT NAMES USE ONLY THE TERMINALS MARKED - "X" ***** *****															
N/C	C	N/O	OUTPUT NAME					OUTPUT NAME				N/O	C	N/C	
---	---	---	-----					-----				---	---	---	
		X			O/P 4						O/P 12			X	

		X			O/P 4						O/P 12			X	

		X			O/P 5						O/P 13			X	

		X			O/P 5						O/P 13			X	

		X			O/P 6						O/P 14			X	

		X			O/P 6						O/P 14			X	

		X			O/P 7						O/P 15			X	

		X			O/P 7						O/P 15			X	

***** ***** BOARD ADDRESS 003 ***** *****															

N.B. THE 24/0 BOARD HAS NO OUTPUT RELAYS FITTED. THE 24/4 BOARD ONLY HAS OUTPUT RELAYS 0-3 FITTED

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

82167						
Card Type	Rack Posn	Addr.	Port	Type	Line	Term Posn
Intelligent Backplane 16/0	Rack	01	0	I	000 - 007	2 LT1
Intelligent Backplane 16/0	Rack	01	1	I	008 - 015	2 LT1
Intelligent Backplane 16/0	Rack	02	2	I	016 - 023	2 LT2
Intelligent Backplane 16/0	Rack	02	3	I	024 - 031	2 LT2
Serial IO 24/4	1 I/O1	03	4	I	032 - 039	1 I/O1
Serial IO 24/4	1 I/O1	03	5	I	040 - 047	1 I/O1
Serial IO 24/4	1 I/O1	03	6	I	048 - 055	1 I/O1
Serial IO 24/4	1 I/O1	03	7	O	056 - 059	1 I/O1
CPU	A					

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 1 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS	Note 1:
1						Please refer to special
2	667/1/45950/020	ST950ELV CAB UK 20A 1LSLS GRY	1			instruction pages for
3	667/1/45950/040	ST950ELV CAB UK 40A 1LSLS GRY				additional information on
4	667/1/45950/021	ST950ELV CAB UK 20A 1LSLS BLK				items marked with an '**'.
5	667/1/45950/041	ST950ELV CAB UK 40A 1LSLS BLK				
6	667/1/45950/520	ST950ELV CAB UK 20A 1LSLS LOW INRUSH GRY				
7	667/1/45950/521	ST950ELV CAB UK 20A 1LSLS LOW INRUSH BLK				
8						
9	667/1/32943/001	ELV Lamp switch (LSLS) kit	2			
10	667/1/32960/001	ELV Lamp switch (LSLS) backplane kit	2			
11	667/1/46085/002	I/O card kit (4 outputs)	1			
12	667/1/46085/001	I/O card kit (16 outputs)				
13	667/1/46015/001	ST950 CPU I/O kit (4 outputs)				
14	667/1/45952/001	ST950 CPU I/O kit (4 outputs) cableform				
15						
16						
17						
18	667/1/32910/950	Intelligent detector backplane kit	2			
19	667/1/33002/000	ELV detector 6U rack expansion kit				
20	667/1/33074/000	ST900 ELV 24 V detector supply Kit (6A)				
21	667/1/20690/001	19" Detector Rack				
22						
23	667/1/32980/040	ELV 20A to 40A upgrade kit				
24						
25						
26	667/1/33070/000	ELV Regulatory Sign expansion kit				
27	667/1/32955/000	ELV Audible supply kit				
28	667/1/27117/000	ST900 300mA RCD kit				
29						
30	667/1/32900/001	Expansion cabinet kit - Black				
31	667/1/32900/000	Expansion cabinet kit - Grey				
32	667/1/33072/000	Cabinet mounted cut-out connection kit				
33	667/1/33007/000	LSLS Expansion cabinet kit				
34						
35						
36	667/1/27056/001	Manual Panel Full kit				
37	667/1/27110/000	Manual Panel RS232 kit				
38						
39						
40	667/1/45200/001	SLD4 Standard 4 Channel loop detector	8			

Works Order : 460917142
EM Number : 82167
Engineer : Stuart Mulliner
Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Special Instructions

ST900 ELV CONTROLLER ITEMS LIST SHEET 2 (*I*L*)

ITEM	DRAWING NUMBER	DESCRIPTION	QTY	TOT	REMARKS
41					
42	667/1/45990/000	ST950ELV CUCKOO KIT - T400L			
43	667/1/45991/000	ST950ELV CUCKOO KIT - ST800			
44	667/1/45992/000	ST950ELV CUCKOO KIT - MICROSENSE MTC			
45	667/1/45993/000	ST950ELV CUCKOO KIT - MICROSENSE SENTNL			
46	667/1/45994/000	ST950ELV CUCKOO KIT - PEEK TSC3			
47	667/1/45995/000	ST950ELV CUCKOO KIT - PEEK TRX			
48					
49					
50					
51					
52	667/1/33073/000	ST900 Isolator locking kit			
53	667/2/20234/000	Screw Lock Key			
54					
55					
56	667/1/27104/000	ST800 / ST900 DFM Lens Kit			
57	667/7/46690/000	NAL CONTROLLER CABINET BASE GREY			
58	667/7/46690/001	NAL CONTROLLER CABINET BASE BLACK			
59	667/2/27096/000	ST800 / ST900 Mounting Stool			
60					
61					
62	667/1/26271/000	Telephone Kit (Lightning protection)			
63	667/1/27118/000	Surge Arrester (Lightning protection)			
64					
65	667/1/45950/120	ST950 ELV Cabinet Export 20A 1 LSLS - Grey			
66	667/1/45950/140	ST950 ELV Cabinet Export 40A 1 LSLS - Grey			
67	667/1/45950/951	ST950 ELV RACK 19" 1LSLS			
68	667/1/32945/000	ST900 ELV additional LSLS rack wiring kit			
69					
70	667/1/45980/000	ST900 ELV to ST950 ELV conversion kit			
71	667/1/27056/300	Manual Panel Signals off only			
72	667/1/45966/001	Temporary USB Wi-Fi Dongle			
73	667/1/45970/000	ST950 RTC backup battery			
74	667/1/33080/100	Mains kit (ST950ELV) - No maint sockets			
75	667/1/31625/019	2U 19" UTMIC communications tray			
76	667/6/46680/000	Anti graffiti coating			
77	667/1/33080/000	Mains kit (ST950ELV)			
78	667/1/33075/000	ELV 24V detector supply kit (2A)			
79	667/1/27018/950	GPS Clock Kit			
80					

Works Order : 460917142
EM Number : 82167
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Intersection : Warrington Road / Holt Lane / Longview Road / Whiston Hospital St. Helens

Call Cancel

Call Cancel

Unit No.	Input Name	Call Delay	Cancel Delay	Phase Demanded (Unlatched Demand)
0	BSL6	10	1	B
1	*SCRT10	10	1	M
2	CIN7	6	0	
3	KIN33	6	0	
4		0	0	
5		0	0	
6		0	0	
7		0	0	

Inputs and Outputs

Inputs and Outputs

- ☐ Enable Signal Required
Check boxes
- ☐ Manual Allocation

Port Number & Type

Port:

0

- ☐ Inputs ☐ Outputs
- ☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	0	0	I	AIN1	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A1
☐	1	1	I	BIN2	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A2
☐	2	2	I	AX3	☒	☒	☐	☐	☐	Y	0	3.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A3
☐	3	3	I	BX4	☒	☒	☐	☐	☐	Y	0	3.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	A4
☐	4	4	I	ASL5	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B1
☐	5	5	I	BSL6	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☒	☐	☐	☐	2 LT1	B2
☐	6	6	I	EX16	☒	☒	☐	☐	☐	Y	0	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B3
☐	7	7	I	ESL17	☒	☒	☐		☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	B4

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

- ☐ Enable Signal Required
Check boxes
- ☐ Manual Allocation

Port Number & Type

Port:

1

- ☐ Inputs ☐ Outputs
- ☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0
Card Address: 1

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	Used By HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	8	0	I	CX8	☒	☒	☐	☐	☐	Y	0	3.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C1
☐	9	1	I	CX9	☒	☒	☐	☐	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C2
☐	10	2	I	CSL10	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C3
☐	11	3	I	CSL11	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	C4
☐	12	4	I	DX12	☒	☒	☐	☐	☐	Y	0	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D1
☐	13	5	I	DX13	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D2
☐	14	6	I	DSL14	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D3
☐	15	7	I	DSL15	☒	☒	☐		☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT1	D4

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0

Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	16	0	I	CIN7	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☒	☐	☐	☐	2 LT2	A1
☐	17	1	I	KIN33	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☒	☐	☐	☐	2 LT2	A2
☐	18	2	I	KX34	☒	☒	☐	☐	☐	Y	0	3.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A3
☐	19	3	I	KSL35	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	A4
☐	20	4	I	LIN36	☒	☒	☐	☐	☐	Y	0	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B1
☐	21	5	I	LX37	☒	☒	☐	☐	☐	Y	0	3.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B2
☐	22	6	I	LSL38	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B3
☐	23	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	B4

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Intelligent Backplane 16/0

Card Address: 2

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Terminal No
☐	24	0	I	NX39	☒	☒	☐	☐	☐	Y	0	2.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C1
☐	25	1	I	NSL40	☒	☒	☐	☐	☐	Y	0	0.6	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C2
☐	26	2	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C3
☐	27	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	C4
☐	28	4	I	RSL41	☒	☒	☐	☒	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D1
☐	29	5	I	RSL41u	☒	☒	☐	☐	☐	Y	0	1.0	☐	☐	☐	☐	☐	☐	☐	☒	☐	2 LT2	D2
☐	30	6	I	SSL42	☒	☒	☐	☒	☐	Y	0	1.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	2 LT2	D3
☐	31	7	I	SSL42u	☒	☒	☐		☐	Y	0	1.0	☐	☐	☐	☐	☐	☐	☐	☒	☐	2 LT2	D4

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	32	0	I	PEDF1	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-0
☐	33	1	I	PEDF1516	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-1
☐	34	2	I	PEDG12	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-2
☐	35	3	I	PEDG1314	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-3
☐	36	4	I	PEDH910	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-4
☐	37	5	I	PEDH11	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-5
☐	38	6	I	PEDI6	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-6
☐	39	7	I	PEDI78	☒	☐	☐		☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-7

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs ☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Serial IO 24/4
Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	40	0	I	PEDJ2	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-8
☐	41	1	I	PEDJ3	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-9
☐	42	2	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-10
☐	43	3	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-11
☐	44	4	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-12
☐	45	5	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-13
☐	46	6	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-14
☐	47	7	I		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	I-15

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Serial IO 24/4

Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	48	0	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-16
☐	49	1	I		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-17
☐	50	2	I	PEDO17	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-18
☐	51	3	I	PEDO26	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-19
☐	52	4	I	PEDP20	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-20
☐	53	5	I	PEDP22	☒	☐	☐	☐	☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-21
☐	54	6	I	PEDQ23	☒	☐	☐	☐	☐	Y	1	0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-22
☐	55	7	I	PEDQ24	☒	☐	☐		☐	N		0.0	☒	☐	☐	☐	☐	☐	☐	☐	☐	1I/O1	I-23

Add

Delete

Move

Clear Used By

Move to/from backplane

Manual Map Optimisation

Inputs and Outputs

Inputs and Outputs

☐ Enable Signal Required Check boxes

☐ Manual Allocation

Port Number & Type

Port:

☐ Inputs

☐ Outputs

☒ Inputs & Outputs

Card Type & Address

Serial IO 24/4

Card Address: 3

	DET No	Bit No	Type I or O	Name	Req'd	BP	Inv	U/D	Misc	DFM	DFM Group	Ext time	Phs	UTC	SDE	Pri	HC	CC	IG	UD	LRT	Term Block	Line No
☐	56	0	O	LAMPS	☒	☐	☐	☐	☐	N		0.0	☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-0
☐	57	1	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-1
☐	58	2	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-2
☐	59	3	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-3
☐	60	4	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-4
☐	61	5	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-5
☐	62	6	O		☐	☐	☐	☐	☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-6
☐	63	7	O		☐	☐	☐		☐				☐	☐	☐	☐	☐	☐	☐	☐	☐	11/O1	O-7

AddDeleteMoveClear Used ByMove to/from backplane

Manual Map Optimisation

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection

1

Aspect Drive Configuration for LSLS 1 of 3 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	A	Red	Phase	16	N/A	N/A	N/A
31	A	Amber	Phase	15	N/A	N/A	N/A
30	A	Green	Phase	14	N/A	N/A	N/A
29	B	Green	Phase	13	N/A	N/A	N/A
28	N/A	N/A	N/A	12	N/A	N/A	N/A
27	N/A	N/A	N/A	11	N/A	N/A	N/A
26	C	Red	Phase	10	N/A	N/A	N/A
25	C	Amber	Phase	9	N/A	N/A	N/A
24	C	Green	Phase	8	N/A	N/A	N/A
23	D	Red	Phase	7	N/A	N/A	N/A
22	D	Amber	Phase	6	N/A	N/A	N/A
21	D	Green	Phase	5	N/A	N/A	N/A
20	E	Red	Phase	4	N/A	N/A	N/A
19	E	Amber	Phase	3	N/A	N/A	N/A
18	E	Green	Phase	2	N/A	N/A	N/A
17	N/A	N/A	N/A	1	N/A	N/A	N/A

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☐ Card Reversed

HPU Connection

1

Aspect Drive Configuration for LSLS 2 of 3 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
32	F	Red	Phase	16	J	Red	Phase
31	F	Amber	Phase	15	J	Amber	Phase
30	F	Green	Phase	14	J	Green	Phase
29	F	Green	Phase	13	J	Green	Phase
28	G	Red	Phase	12	N/A	N/A	N/A
27	G	Amber	Phase	11	N/A	N/A	N/A
26	G	Green	Phase	10	N/A	N/A	N/A
25	G	Green	Phase	9	N/A	N/A	N/A
24	H	Red	Phase	8	N/A	N/A	N/A
23	H	Amber	Phase	7	N/A	N/A	N/A
22	H	Green	Phase	6	N/A	N/A	N/A
21	H	Green	Phase	5	N/A	N/A	N/A
20	I	Red	Phase	4	N/A	N/A	N/A
19	I	Amber	Phase	3	N/A	N/A	N/A
18	I	Green	Phase	2	N/A	N/A	N/A
17	I	Green	Phase	1	N/A	N/A	N/A

Aspect Drives (ELV Controllers)

Aspect Drives (ELV Controllers)

☒ Card Reversed

HPU Connection

1

Aspect Drive Configuration for LSLS 3 of 3 cards (Cabinet 1)

Output	Phase	Aspect	Use	Output	Phase	Aspect	Use
1	K	Red	Phase	17	S	Amber	Phase
2	K	Amber	Phase	18	S	Green	Phase
3	K	Green	Phase	19	N/A	N/A	N/A
4	L	Red	Phase	20	N/A	N/A	N/A
5	L	Amber	Phase	21	O	Red	Phase
6	L	Green	Phase	22	O	Amber	Phase
7	M	Green	Phase	23	O	Green	Phase
8	N/A	N/A	N/A	24	O	Green	Phase
9	N/A	N/A	N/A	25	P	Red	Phase
10	N	Red	Phase	26	P	Amber	Phase
11	N	Amber	Phase	27	P	Green	Phase
12	N	Green	Phase	28	P	Green	Phase
13	R	Red	Phase	29	Q	Red	Phase
14	R	Amber	Phase	30	Q	Amber	Phase
15	R	Green	Phase	31	Q	Green	Phase
16	S	Red	Phase	32	Q	Green	Phase

I/O - DFM Group Timings

I/O - DFM Group Timings

Input Group	State	SET A	SET B	SET C	SET D
Group 0	Active (Mins)	60	60	60	60
	InActive (Hrs)	18	18	18	18
Group 1	Active (Mins)	5	5	5	5
	InActive (Hrs)	254	254	254	254
Group 2	Active (Mins)	60	60	60	60
	InActive (Hrs)	48	48	48	48
Group 3	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 4	Active (Mins)	90	90	90	90
	InActive (Hrs)	48	48	48	48
Group 5	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 6	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18
Group 7	Active (Mins)	30	30	30	30
	InActive (Hrs)	18	18	18	18

Note - 255 or blank disables DFM monitoring of that state (active or inactive) during that timeset (A to D)

Handset Limiting Values

State	Min	Max
Active (Mins)	0	254
InActive (Hrs)	0	254

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 - 1.4 Phases in Stages
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APPENDIX O

Rainhill, Friday 21st May 2021

Junction: 1
Approach: Holt Lane



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Eastbound)					To Access Road					To A57 Warrington Road (Westbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	7	0	0	7	7.0	0	0	0	0	0.0	5	0	0	5	5.0
07:15 - 07:30	1	0	0	1	1.0	0	0	0	0	0.0	9	0	0	9	9.0
07:30 - 07:45	4	0	0	4	4.0	0	0	0	0	0.0	7	0	0	7	7.0
07:45 - 08:00	10	0	0	10	10.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	22	0	0	22	22.0	0	0	0	0	0.0	32	0	0	32	32.0
08:00 - 08:15	5	0	0	5	5.0	0	0	0	0	0.0	13	0	0	13	13.0
08:15 - 08:30	11	0	0	11	11.0	0	0	0	0	0.0	13	0	0	13	13.0
08:30 - 08:45	22	0	0	22	22.0	0	0	0	0	0.0	22	0	0	22	22.0
08:45 - 09:00	15	0	0	15	15.0	0	0	0	0	0.0	14	0	0	14	14.0
Hourly Total	53	0	0	53	53.0	0	0	0	0	0.0	62	0	0	62	62.0
09:00 - 09:15	5	0	0	5	5.0	0	0	0	0	0.0	11	0	0	11	11.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0	7	0	0	7	7.0
09:30 - 09:45	4	0	0	4	4.0	0	0	0	0	0.0	12	0	0	12	12.0
09:45 - 10:00	2	0	0	2	2.0	0	0	0	0	0.0	5	0	0	5	5.0
Hourly Total	11	0	0	11	11.0	0	0	0	0	0.0	35	0	0	35	35.0
10:00 - 10:15	5	0	0	5	5.0	0	0	0	0	0.0	6	1	0	7	8.3
10:15 - 10:30	4	1	0	5	6.3	0	0	0	0	0.0	7	0	0	7	7.0
10:30 - 10:45	5	0	0	5	5.0	0	0	0	0	0.0	11	0	1	12	13.0
10:45 - 11:00	4	0	0	4	4.0	0	0	0	0	0.0	3	0	0	3	3.0
Hourly Total	18	1	0	19	20.3	0	0	0	0	0.0	27	1	1	29	31.3
11:00 - 11:15	6	0	0	6	6.0	0	0	0	0	0.0	9	0	0	9	9.0
11:15 - 11:30	4	0	0	4	4.0	0	0	0	0	0.0	8	0	0	8	8.0
11:30 - 11:45	2	0	0	2	2.0	0	0	0	0	0.0	5	0	1	6	7.0
11:45 - 12:00	4	0	0	4	4.0	0	0	0	0	0.0	9	0	0	9	9.0
Hourly Total	16	0	0	16	16.0	0	0	0	0	0.0	31	0	1	32	33.0
12:00 - 12:15	8	1	0	9	10.3	0	0	0	0	0.0	7	0	0	7	7.0
12:15 - 12:30	5	0	0	5	5.0	0	0	0	0	0.0	12	0	0	12	12.0
12:30 - 12:45	5	0	0	5	5.0	0	0	0	0	0.0	9	1	1	11	13.3
12:45 - 13:00	3	0	0	3	3.0	0	0	0	0	0.0	17	0	0	17	17.0
Hourly Total	21	1	0	22	23.3	0	0	0	0	0.0	45	1	1	47	49.3
13:00 - 13:15	5	0	0	5	5.0	0	0	0	0	0.0	17	0	0	17	17.0
13:15 - 13:30	7	0	0	7	7.0	0	0	0	0	0.0	8	0	0	8	8.0
13:30 - 13:45	3	0	0	3	3.0	0	0	0	0	0.0	6	0	1	7	8.0
13:45 - 14:00	7	0	0	7	7.0	0	0	0	0	0.0	13	0	0	13	13.0
Hourly Total	22	0	0	22	22.0	0	0	0	0	0.0	44	0	1	45	46.0
14:00 - 14:15	2	0	0	2	2.0	0	0	0	0	0.0	8	0	0	8	8.0
14:15 - 14:30	6	0	0	6	6.0	0	0	0	0	0.0	4	0	0	4	4.0
14:30 - 14:45	6	0	0	6	6.0	0	0	0	0	0.0	11	0	1	12	13.0
14:45 - 15:00	11	0	0	11	11.0	0	0	0	0	0.0	10	0	0	10	10.0
Hourly Total	25	0	0	25	25.0	0	0	0	0	0.0	33	0	1	34	35.0
15:00 - 15:15	19	0	0	19	19.0	0	0	0	0	0.0	8	0	0	8	8.0
15:15 - 15:30	16	0	0	16	16.0	0	0	0	0	0.0	20	0	0	20	20.0
15:30 - 15:45	3	0	0	3	3.0	0	0	0	0	0.0	15	0	0	15	15.0
15:45 - 16:00	3	0	0	3	3.0	0	0	0	0	0.0	19	0	1	20	21.0
Hourly Total	41	0	0	41	41.0	0	0	0	0	0.0	62	0	1	63	64.0
16:00 - 16:15	10	0	0	10	10.0	0	0	0	0	0.0	12	0	0	12	12.0
16:15 - 16:30	6	0	0	6	6.0	0	0	0	0	0.0	19	0	0	19	19.0
16:30 - 16:45	12	0	0	12	12.0	0	0	0	0	0.0	10	0	1	11	12.0
16:45 - 17:00	6	0	0	6	6.0	0	0	0	0	0.0	8	1	0	9	10.3
Hourly Total	34	0	0	34	34.0	0	0	0	0	0.0	49	1	1	51	53.3
17:00 - 17:15	16	0	0	16	16.0	0	0	0	0	0.0	19	0	0	19	19.0
17:15 - 17:30	7	0	0	7	7.0	0	0	0	0	0.0	15	0	0	15	15.0
17:30 - 17:45	6	0	0	6	6.0	0	0	0	0	0.0	15	0	1	16	17.0
17:45 - 18:00	2	0	0	2	2.0	0	0	0	0	0.0	9	0	0	9	9.0
Hourly Total	31	0	0	31	31.0	0	0	0	0	0.0	58	0	1	59	60.0
18:00 - 18:15	1	0	0	1	1.0	0	0	0	0	0.0	16	0	0	16	16.0
18:15 - 18:30	6	0	0	6	6.0	0	0	0	0	0.0	16	0	0	16	16.0
18:30 - 18:45	7	0	0	7	7.0	0	0	0	0	0.0	6	0	0	6	6.0
18:45 - 19:00	8	0	0	8	8.0	0	0	0	0	0.0	12	0	0	12	12.0
Hourly Total	22	0	0	22	22.0	0	0	0	0	0.0	50	0	0	50	50.0
TOTAL	316	2	0	318	320.6	0	0	0	0	0.0	528	3	8	539	550.9

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	4
825	3
830	0
835	2
840	0
845	2
850	2
855	3
900	1
905	2
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	1
1005	0
1010	0
1015	0
1020	0
1025	3
1030	0
1035	0
1040	0
1045	0
1050	0
1055	0

TIME	Queue Lengths (Vehicles)
1100	0
1105	0
1110	2
1115	0
1120	1
1125	0
1130	0
1135	0
1140	0
1145	0
1150	0
1155	0
1200	0
1205	0
1210	2
1215	0
1220	0
1225	0
1230	0
1235	2
1240	1
1245	0
1250	0
1255	0
1300	0
1305	0
1310	0
1315	3
1320	0
1325	1
1330	0
1335	2
1340	2
1345	0
1350	0
1355	0
1400	0
1405	0
1410	3
1415	0
1420	0
1425	0
1430	0
1435	2
1440	0
1445	0
1450	0
1455	0

TIME	Queue Lengths (Vehicles)
1500	3
1505	2
1510	2
1515	3
1520	2
1525	2
1530	2
1535	2
1540	0
1545	0
1550	0
1555	0
1600	4
1605	2
1610	0
1615	0
1620	0
1625	3
1630	5
1635	3
1640	3
1645	0
1650	2
1655	0
1700	2
1705	3
1710	4
1715	2
1720	3
1725	2
1730	2
1735	0
1740	0
1745	0
1750	2
1755	0
1800	2
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0

Rainhill, Friday 21st May 2021

Junction: 1
Approach: A57 Warrington Road Westbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Access Road					To A57 Warrington Road (Westbound)					To Holt Lane				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	53	3	2	58	63.9	2	0	0	2	2.0
07:15 - 07:30	0	0	0	0	0.0	90	1	3	94	98.3	0	0	0	0	0.0
07:30 - 07:45	0	0	0	0	0.0	120	3	3	126	132.9	3	0	0	3	3.0
07:45 - 08:00	0	0	0	0	0.0	165	3	4	172	179.9	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	428	10	12	450	475.0	11	0	0	11	11.0
08:00 - 08:15	0	0	0	0	0.0	151	2	3	156	161.6	6	0	0	6	6.0
08:15 - 08:30	0	0	0	0	0.0	162	2	3	167	172.6	5	0	0	5	5.0
08:30 - 08:45	0	0	0	0	0.0	168	3	3	174	180.9	13	0	0	13	13.0
08:45 - 09:00	0	0	0	0	0.0	170	2	2	174	178.6	14	0	0	14	14.0
Hourly Total	0	0	0	0	0.0	651	9	11	671	693.7	38	0	0	38	38.0
09:00 - 09:15	0	0	0	0	0.0	156	4	3	163	171.2	10	0	0	10	10.0
09:15 - 09:30	0	0	0	0	0.0	103	2	4	109	115.6	4	0	0	4	4.0
09:30 - 09:45	0	0	0	0	0.0	108	2	3	113	118.6	5	0	0	5	5.0
09:45 - 10:00	1	0	0	1	1.0	122	3	4	129	136.9	3	0	0	3	3.0
Hourly Total	1	0	0	1	1.0	489	11	14	514	542.3	22	0	0	22	22.0
10:00 - 10:15	0	0	0	0	0.0	116	3	3	122	128.9	7	0	0	7	7.0
10:15 - 10:30	0	0	0	0	0.0	118	0	2	120	122.0	3	0	0	3	3.0
10:30 - 10:45	0	0	0	0	0.0	120	5	3	128	137.5	2	0	0	2	2.0
10:45 - 11:00	1	0	0	1	1.0	128	4	3	135	143.2	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	482	12	11	505	531.6	12	0	0	12	12.0
11:00 - 11:15	0	0	0	0	0.0	126	5	2	133	141.5	3	0	0	3	3.0
11:15 - 11:30	0	0	0	0	0.0	125	6	2	133	142.8	5	0	0	5	5.0
11:30 - 11:45	0	0	0	0	0.0	111	2	3	116	121.6	3	0	0	3	3.0
11:45 - 12:00	0	0	0	0	0.0	132	4	3	139	147.2	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	494	17	10	521	553.1	17	0	0	17	17.0
12:00 - 12:15	1	0	0	1	1.0	127	8	2	137	149.4	2	1	0	3	4.3
12:15 - 12:30	0	0	0	0	0.0	165	4	5	174	184.2	13	0	0	13	13.0
12:30 - 12:45	0	0	0	0	0.0	109	0	2	111	113.0	5	0	0	5	5.0
12:45 - 13:00	0	0	0	0	0.0	148	1	3	152	156.3	4	0	0	4	4.0
Hourly Total	1	0	0	1	1.0	549	13	12	574	602.9	24	1	0	25	26.3
13:00 - 13:15	0	0	0	0	0.0	157	1	2	160	163.3	13	0	0	13	13.0
13:15 - 13:30	0	0	0	0	0.0	126	4	3	133	141.2	9	0	0	9	9.0
13:30 - 13:45	0	0	0	0	0.0	117	6	4	127	138.8	8	0	0	8	8.0
13:45 - 14:00	0	0	0	0	0.0	122	5	1	128	135.5	8	0	0	8	8.0
Hourly Total	0	0	0	0	0.0	522	16	10	548	578.8	38	0	0	38	38.0
14:00 - 14:15	0	0	0	0	0.0	130	2	4	136	142.6	8	0	0	8	8.0
14:15 - 14:30	0	0	0	0	0.0	116	1	3	120	124.3	2	0	0	2	2.0
14:30 - 14:45	0	0	0	0	0.0	128	3	1	132	136.9	7	0	0	7	7.0
14:45 - 15:00	0	0	0	0	0.0	142	2	4	148	154.6	7	0	0	7	7.0
Hourly Total	0	0	0	0	0.0	516	8	12	536	558.4	24	0	0	24	24.0
15:00 - 15:15	0	0	0	0	0.0	139	0	1	140	141.0	9	0	0	9	9.0
15:15 - 15:30	0	0	0	0	0.0	136	1	0	137	138.3	14	0	0	14	14.0
15:30 - 15:45	0	0	0	0	0.0	174	2	4	180	186.6	24	0	0	24	24.0
15:45 - 16:00	0	0	0	0	0.0	174	4	5	183	193.2	14	0	0	14	14.0
Hourly Total	0	0	0	0	0.0	623	7	10	640	659.1	61	0	0	61	61.0
16:00 - 16:15	0	0	0	0	0.0	164	2	3	169	174.6	12	0	0	12	12.0
16:15 - 16:30	0	0	0	0	0.0	136	1	3	140	144.3	9	0	0	9	9.0
16:30 - 16:45	0	0	0	0	0.0	149	2	3	154	159.6	5	0	0	5	5.0
16:45 - 17:00	0	0	0	0	0.0	145	0	2	147	149.0	5	0	0	5	5.0
Hourly Total	0	0	0	0	0.0	594	5	11	610	627.5	31	0	0	31	31.0
17:00 - 17:15	0	0	0	0	0.0	147	1	2	150	153.3	4	0	0	4	4.0
17:15 - 17:30	0	0	0	0	0.0	153	1	3	157	161.3	6	0	0	6	6.0
17:30 - 17:45	0	0	0	0	0.0	150	0	4	154	158.0	13	0	0	13	13.0
17:45 - 18:00	0	0	0	0	0.0	139	0	0	139	139.0	3	0	0	3	3.0
Hourly Total	0	0	0	0	0.0	589	2	9	600	611.6	26	0	0	26	26.0
18:00 - 18:15	0	0	0	0	0.0	130	0	2	132	134.0	17	0	0	17	17.0
18:15 - 18:30	0	0	0	0	0.0	148	0	2	150	152.0	6	0	0	6	6.0
18:30 - 18:45	0	0	0	0	0.0	124	0	2	126	128.0	3	0	0	3	3.0
18:45 - 19:00	0	0	0	0	0.0	125	1	2	128	131.3	4	0	0	4	4.0
Hourly Total	0	0	0	0	0.0	527	1	8	536	545.3	30	0	0	30	30.0
TOTAL	3	0	0	3	3.0	6464	111	130	6705	6979.3	334	1	0	335	336.3

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	0
720	5
725	3
730	0
735	5
740	0
745	0
750	3
755	3
800	10
805	4
810	3
815	8
820	6
825	5
830	3
835	10
840	0
845	2
850	6
855	6
900	4
905	4
910	3
915	3
920	4
925	0
930	0
935	3
940	3
945	7
950	5
955	5
1000	3
1005	0
1010	0
1015	3
1020	0
1025	0
1030	0
1035	0
1040	0
1045	2
1050	0
1055	0

TIME	Queue Lengths (Vehicles)
1100	3
1105	0
1110	0
1115	4
1120	2
1125	0
1130	4
1135	3
1140	2
1145	4
1150	4
1155	4
1200	5
1205	4
1210	2
1215	6
1220	4
1225	0
1230	4
1235	2
1240	3
1245	3
1250	4
1255	3
1300	6
1305	8
1310	10
1315	4
1320	6
1325	3
1330	8
1335	6
1340	5
1345	7
1350	4
1355	2
1400	6
1405	3
1410	2
1415	5
1420	3
1425	3
1430	0
1435	3
1440	0
1445	5
1450	10
1455	3

TIME	Queue Lengths (Vehicles)
1500	5
1505	2
1510	0
1515	6
1520	2
1525	6
1530	10
1535	7
1540	6
1545	10
1550	0
1555	3
1600	11
1605	6
1610	5
1615	6
1620	0
1625	0
1630	7
1635	0
1640	9
1645	5
1650	6
1655	3
1700	3
1705	4
1710	3
1715	6
1720	5
1725	0
1730	0
1735	7
1740	4
1745	2
1750	0
1755	3
1800	8
1805	10
1810	4
1815	2
1820	5
1825	8
1830	3
1835	4
1840	0
1845	3
1850	6
1855	0
1900	0

Rainhill, Friday 21st May 2021

Junction: 1
Approach: Access Road



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Westbound)					To Holt Lane					To A57 Warrington Road (Eastbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
07:15 - 07:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
07:30 - 07:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
07:45 - 08:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
08:00 - 08:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
08:15 - 08:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
08:30 - 08:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
08:45 - 09:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:00 - 09:15	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
09:15 - 09:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:45 - 10:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
10:00 - 10:15	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
10:15 - 10:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
10:30 - 10:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
10:45 - 11:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
11:00 - 11:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:15 - 11:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:30 - 11:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:45 - 12:00	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
12:00 - 12:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:15 - 12:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:30 - 12:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:45 - 13:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:00 - 13:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:15 - 13:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:30 - 13:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:45 - 14:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:00 - 14:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:15 - 14:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:30 - 14:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:45 - 15:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
15:00 - 15:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:15 - 15:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:30 - 15:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:45 - 16:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:00 - 16:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
17:00 - 17:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
17:15 - 17:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
17:30 - 17:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
17:45 - 18:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:00 - 18:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:15 - 18:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
18:45 - 19:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
TOTAL	4	0	0	4	4.0	0	0	0	0	0.0	1	0	0	1	1.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	0
825	0
830	0
835	0
840	0
845	0
850	0
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	0
955	0
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	0
1050	0
1055	0

TIME	Queue Lengths (Vehicles)
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	0
1135	0
1140	0
1145	0
1150	0
1155	0
1200	0
1205	0
1210	0
1215	0
1220	0
1225	0
1230	0
1235	0
1240	0
1245	0
1250	0
1255	0
1300	0
1305	0
1310	0
1315	0
1320	0
1325	0
1330	0
1335	0
1340	0
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0

TIME	Queue Lengths (Vehicles)
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	0
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0

Rainhill, Friday 21st May 2021

Junction: 1
Approach: A57 Warrington Road Eastbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Holt Lane					To A57 Warrington Road (Eastbound)					To Access Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	57	3	1	61	65.9	0	0	0	0	0.0
07:15 - 07:30	2	0	0	2	2.0	84	2	1	87	90.6	0	0	0	0	0.0
07:30 - 07:45	8	0	0	8	8.0	126	2	3	131	136.6	0	0	0	0	0.0
07:45 - 08:00	8	0	0	8	8.0	115	1	2	118	121.3	0	0	0	0	0.0
Hourly Total	18	0	0	18	18.0	382	8	7	397	414.4	0	0	0	0	0.0
08:00 - 08:15	5	0	0	5	5.0	146	1	2	149	152.3	0	0	0	0	0.0
08:15 - 08:30	5	0	0	5	5.0	164	3	5	172	180.9	0	0	0	0	0.0
08:30 - 08:45	6	0	0	6	6.0	129	0	5	134	139.0	1	0	0	1	1.0
08:45 - 09:00	4	0	0	4	4.0	90	1	2	93	96.3	0	0	0	0	0.0
Hourly Total	20	0	0	20	20.0	529	5	14	548	568.5	1	0	0	1	1.0
09:00 - 09:15	11	0	0	11	11.0	107	2	3	112	117.6	0	0	0	0	0.0
09:15 - 09:30	5	0	0	5	5.0	125	3	3	131	137.9	0	0	0	0	0.0
09:30 - 09:45	2	1	0	3	4.3	89	2	3	94	99.6	0	0	0	0	0.0
09:45 - 10:00	1	0	1	2	3.0	92	1	3	96	100.3	0	0	0	0	0.0
Hourly Total	19	1	1	21	23.3	413	8	12	433	455.4	0	0	0	0	0.0
10:00 - 10:15	5	0	0	5	5.0	93	0	2	95	97.0	0	0	0	0	0.0
10:15 - 10:30	7	0	0	7	7.0	104	4	4	112	121.2	0	0	0	0	0.0
10:30 - 10:45	6	0	0	6	6.0	104	3	2	109	114.9	0	0	0	0	0.0
10:45 - 11:00	5	0	0	5	5.0	129	3	4	136	143.9	0	0	0	0	0.0
Hourly Total	23	0	0	23	23.0	430	10	12	452	477.0	0	0	0	0	0.0
11:00 - 11:15	8	0	1	9	10.0	121	1	2	124	127.3	0	0	0	0	0.0
11:15 - 11:30	5	0	0	5	5.0	121	1	3	125	129.3	0	0	0	0	0.0
11:30 - 11:45	13	2	0	15	17.6	109	6	4	119	130.8	0	0	0	0	0.0
11:45 - 12:00	14	1	0	15	16.3	117	4	2	123	130.2	0	0	0	0	0.0
Hourly Total	40	3	1	44	48.9	468	12	11	491	517.6	0	0	0	0	0.0
12:00 - 12:15	7	0	0	7	7.0	147	4	3	154	162.2	0	0	0	0	0.0
12:15 - 12:30	10	0	0	10	10.0	162	2	3	167	172.6	0	0	0	0	0.0
12:30 - 12:45	12	0	0	12	12.0	137	2	3	142	147.6	0	0	0	0	0.0
12:45 - 13:00	10	0	0	10	10.0	127	3	2	132	137.9	0	0	0	0	0.0
Hourly Total	39	0	0	39	39.0	573	11	11	595	620.3	0	0	0	0	0.0
13:00 - 13:15	8	0	1	9	10.0	168	4	2	174	181.2	0	0	0	0	0.0
13:15 - 13:30	11	0	0	11	11.0	142	4	3	149	157.2	0	0	0	0	0.0
13:30 - 13:45	5	0	0	5	5.0	122	3	3	128	134.9	0	0	0	0	0.0
13:45 - 14:00	7	0	0	7	7.0	131	4	1	136	142.2	1	0	0	1	1.0
Hourly Total	31	0	1	32	33.0	563	15	9	587	615.5	1	0	0	1	1.0
14:00 - 14:15	10	0	1	11	12.0	129	3	4	136	143.9	0	0	0	0	0.0
14:15 - 14:30	5	0	0	5	5.0	127	1	2	130	133.3	0	0	0	0	0.0
14:30 - 14:45	13	0	0	13	13.0	142	2	4	148	154.6	0	0	0	0	0.0
14:45 - 15:00	12	0	0	12	12.0	185	1	2	188	191.3	0	0	0	0	0.0
Hourly Total	40	0	1	41	42.0	583	7	12	602	623.1	0	0	0	0	0.0
15:00 - 15:15	6	0	1	7	8.0	169	2	3	174	179.6	0	0	0	0	0.0
15:15 - 15:30	14	0	0	14	14.0	168	2	5	175	182.6	0	0	0	0	0.0
15:30 - 15:45	22	0	0	22	22.0	140	0	5	145	150.0	0	0	0	0	0.0
15:45 - 16:00	8	0	0	8	8.0	140	3	1	144	148.9	0	0	0	0	0.0
Hourly Total	50	0	1	51	52.0	617	7	14	638	661.1	0	0	0	0	0.0
16:00 - 16:15	17	0	1	18	19.0	184	0	5	189	194.0	0	0	0	0	0.0
16:15 - 16:30	9	0	0	9	9.0	149	3	0	152	155.9	0	0	0	0	0.0
16:30 - 16:45	14	0	0	14	14.0	157	2	7	166	175.6	0	0	0	0	0.0
16:45 - 17:00	11	0	0	11	11.0	186	1	4	191	196.3	0	0	0	0	0.0
Hourly Total	51	0	1	52	53.0	676	6	16	698	721.8	0	0	0	0	0.0
17:00 - 17:15	14	0	0	14	14.0	187	0	0	187	187.0	0	0	0	0	0.0
17:15 - 17:30	21	0	0	21	21.0	180	0	6	186	192.0	0	0	0	0	0.0
17:30 - 17:45	13	0	0	13	13.0	172	0	4	176	180.0	0	0	0	0	0.0
17:45 - 18:00	4	0	0	4	4.0	150	0	3	153	156.0	0	0	0	0	0.0
Hourly Total	52	0	0	52	52.0	689	0	13	702	715.0	0	0	0	0	0.0
18:00 - 18:15	18	0	0	18	18.0	128	2	4	134	140.6	0	0	0	0	0.0
18:15 - 18:30	9	0	0	9	9.0	118	1	1	120	122.3	0	0	0	0	0.0
18:30 - 18:45	13	0	0	13	13.0	142	0	5	147	152.0	0	0	0	0	0.0
18:45 - 19:00	11	0	0	11	11.0	126	0	3	129	132.0	0	0	0	0	0.0
Hourly Total	51	0	0	51	51.0	514	3	13	530	546.9	0	0	0	0	0.0
TOTAL	434	4	6	444	455.2	6437	92	144	6673	6936.6	2	0	0	2	2.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	1
715	0
720	0
725	2
730	0
735	4
740	0
745	0
750	0
755	0
800	8
805	0
810	8
815	10
820	0
825	0
830	2
835	2
840	5
845	3
850	0
855	6
900	3
905	0
910	3
915	2
920	7
925	0
930	0
935	4
940	0
945	0
950	2
955	0
1000	0
1005	3
1010	0
1015	0
1020	0
1025	0
1030	0
1035	3
1040	0
1045	0
1050	3
1055	0

TIME	Queue Lengths (Vehicles)
1100	2
1105	0
1110	0
1115	4
1120	2
1125	0
1130	4
1135	4
1140	3
1145	3
1150	0
1155	3
1200	9
1205	8
1210	3
1215	8
1220	6
1225	8
1230	4
1235	6
1240	3
1245	2
1250	0
1255	0
1300	0
1305	6
1310	0
1315	3
1320	0
1325	3
1330	3
1335	4
1340	0
1345	2
1350	0
1355	7
1400	7
1405	2
1410	5
1415	2
1420	2
1425	0
1430	0
1435	2
1440	3
1445	0
1450	3
1455	5

TIME	Queue Lengths (Vehicles)
1500	6
1505	10
1510	3
1515	1
1520	10
1525	3
1530	13
1535	5
1540	0
1545	10
1550	0
1555	5
1600	8
1605	8
1610	2
1615	4
1620	3
1625	0
1630	7
1635	11
1640	8
1645	8
1650	6
1655	5
1700	7
1705	11
1710	8
1715	11
1720	5
1725	0
1730	6
1735	11
1740	5
1745	3
1750	5
1755	2
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	4
1840	8
1845	10
1850	4
1855	0
1900	0

Rainhill, Saturday 22nd May 2021

Junction: 1
Approach: Holt Lane



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Eastbound)					To Access Road					To A57 Warrington Road (Westbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	4	0	0	4	4.0	0	0	0	0	0.0	7	0	0	7	7.0
10:15 - 10:30	5	0	0	5	5.0	0	0	0	0	0.0	17	0	0	17	17.0
10:30 - 10:45	7	0	0	7	7.0	0	0	0	0	0.0	15	0	1	16	17.0
10:45 - 11:00	4	0	0	4	4.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	20	0	0	20	20.0	0	0	0	0	0.0	50	0	1	51	52.0
11:00 - 11:15	7	0	0	7	7.0	0	0	0	0	0.0	9	0	0	9	9.0
11:15 - 11:30	3	0	0	3	3.0	0	0	0	0	0.0	12	0	0	12	12.0
11:30 - 11:45	5	0	0	5	5.0	0	0	0	0	0.0	10	0	1	11	12.0
11:45 - 12:00	7	0	0	7	7.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	22	0	0	22	22.0	0	0	0	0	0.0	42	0	1	43	44.0
12:00 - 12:15	5	0	0	5	5.0	0	0	0	0	0.0	9	0	0	9	9.0
12:15 - 12:30	7	0	0	7	7.0	0	0	0	0	0.0	8	0	0	8	8.0
12:30 - 12:45	3	0	0	3	3.0	0	0	0	0	0.0	8	0	1	9	10.0
12:45 - 13:00	3	0	0	3	3.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	18	0	0	18	18.0	0	0	0	0	0.0	36	0	1	37	38.0
13:00 - 13:15	6	0	0	6	6.0	0	0	0	0	0.0	13	0	0	13	13.0
13:15 - 13:30	9	0	0	9	9.0	0	0	0	0	0.0	13	0	0	13	13.0
13:30 - 13:45	5	0	0	5	5.0	0	0	0	0	0.0	10	0	1	11	12.0
13:45 - 14:00	4	0	0	4	4.0	0	0	0	0	0.0	14	0	0	14	14.0
Hourly Total	24	0	0	24	24.0	0	0	0	0	0.0	50	0	1	51	52.0
14:00 - 14:15	7	0	0	7	7.0	0	0	0	0	0.0	12	0	0	12	12.0
14:15 - 14:30	3	0	0	3	3.0	0	0	0	0	0.0	6	0	0	6	6.0
14:30 - 14:45	2	0	0	2	2.0	0	0	0	0	0.0	14	0	0	14	14.0
14:45 - 15:00	1	0	0	1	1.0	0	0	0	0	0.0	10	0	0	10	10.0
Hourly Total	13	0	0	13	13.0	0	0	0	0	0.0	42	0	0	42	42.0
15:00 - 15:15	4	0	0	4	4.0	0	0	0	0	0.0	12	0	0	12	12.0
15:15 - 15:30	2	0	0	2	2.0	0	0	0	0	0.0	6	0	0	6	6.0
15:30 - 15:45	11	0	0	11	11.0	0	0	0	0	0.0	14	0	0	14	14.0
15:45 - 16:00	5	0	0	5	5.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	22	0	0	22	22.0	0	0	0	0	0.0	43	0	0	43	43.0
16:00 - 16:15	7	0	0	7	7.0	0	0	0	0	0.0	13	0	0	13	13.0
16:15 - 16:30	5	0	0	5	5.0	0	0	0	0	0.0	5	0	0	5	5.0
16:30 - 16:45	6	0	0	6	6.0	0	0	0	0	0.0	7	0	0	7	7.0
16:45 - 17:00	7	0	0	7	7.0	0	0	0	0	0.0	8	0	0	8	8.0
Hourly Total	25	0	0	25	25.0	0	0	0	0	0.0	33	0	0	33	33.0
TOTAL	144	0	0	144	144.0	0	0	0	0	0.0	296	0	4	300	304.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	0
1025	1
1030	0
1035	1
1040	1
1045	0
1050	3
1055	0
1100	2
1105	0
1110	0
1115	1
1120	0
1125	0
1130	0
1135	3
1140	0
1145	1
1150	0
1155	0
1200	2
1205	1
1210	0
1215	0
1220	2
1225	0
1230	0
1235	2
1240	1
1245	2
1250	0
1255	0
1300	1
1305	3
1310	0
1315	0
1320	1
1325	0

TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	0
1345	1
1350	0
1355	0
1400	3
1405	0
1410	0
1415	0
1420	0
1425	0
1430	5
1435	2
1440	0
1445	1
1450	0
1455	0
1500	1
1505	0
1510	0
1515	1
1520	0
1525	0
1530	0
1535	0
1540	0
1545	1
1550	0
1555	4
1600	0
1605	0
1610	1
1615	0
1620	1
1625	0
1630	0
1635	1
1640	0
1645	0
1650	0
1655	0
1700	0

Rainhill, Saturday 22nd May 2021

Junction: 1
Approach: A57 Warrington Road Westbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Access Road					To A57 Warrington Road (Westbound)					To Holt Lane				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	0	0	0	0	0.0	137	1	4	142	147.3	5	0	0	5	5.0
10:15 - 10:30	0	0	0	0	0.0	130	1	3	134	138.3	5	0	0	5	5.0
10:30 - 10:45	1	0	0	1	1.0	101	0	3	104	107.0	5	0	0	5	5.0
10:45 - 11:00	0	0	0	0	0.0	120	1	3	124	128.3	4	0	0	4	4.0
Hourly Total	1	0	0	1	1.0	488	3	13	504	520.9	19	0	0	19	19.0
11:00 - 11:15	0	0	0	0	0.0	118	1	2	121	124.3	5	0	0	5	5.0
11:15 - 11:30	0	0	0	0	0.0	116	2	4	122	128.6	8	0	0	8	8.0
11:30 - 11:45	0	0	0	0	0.0	147	2	3	152	157.6	2	0	0	2	2.0
11:45 - 12:00	0	0	0	0	0.0	130	0	2	132	134.0	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	511	5	11	527	544.5	21	0	0	21	21.0
12:00 - 12:15	0	0	0	0	0.0	125	1	3	129	133.3	6	0	0	6	6.0
12:15 - 12:30	0	0	0	0	0.0	130	0	3	133	136.0	5	0	0	5	5.0
12:30 - 12:45	0	0	0	0	0.0	151	0	3	154	157.0	5	0	0	5	5.0
12:45 - 13:00	0	0	0	0	0.0	134	0	4	138	142.0	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	540	1	13	554	568.3	22	0	0	22	22.0
13:00 - 13:15	0	0	0	0	0.0	138	0	2	140	142.0	8	0	0	8	8.0
13:15 - 13:30	0	0	0	0	0.0	158	1	2	161	164.3	8	0	0	8	8.0
13:30 - 13:45	0	0	0	0	0.0	158	0	3	161	164.0	5	0	0	5	5.0
13:45 - 14:00	0	0	0	0	0.0	146	0	3	149	152.0	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	600	1	10	611	622.3	27	0	0	27	27.0
14:00 - 14:15	0	0	0	0	0.0	155	0	4	159	163.0	8	0	0	8	8.0
14:15 - 14:30	0	0	0	0	0.0	156	0	3	159	162.0	6	0	0	6	6.0
14:30 - 14:45	0	0	0	0	0.0	120	0	2	122	124.0	3	0	0	3	3.0
14:45 - 15:00	0	0	0	0	0.0	123	0	3	126	129.0	6	0	0	6	6.0
Hourly Total	0	0	0	0	0.0	554	0	12	566	578.0	23	0	0	23	23.0
15:00 - 15:15	0	0	0	0	0.0	118	0	0	118	118.0	4	0	0	4	4.0
15:15 - 15:30	0	0	0	0	0.0	140	0	4	144	148.0	5	0	0	5	5.0
15:30 - 15:45	0	0	0	0	0.0	112	0	3	115	118.0	6	0	0	6	6.0
15:45 - 16:00	0	0	0	0	0.0	154	0	3	157	160.0	4	0	0	4	4.0
Hourly Total	0	0	0	0	0.0	524	0	10	534	544.0	19	0	0	19	19.0
16:00 - 16:15	0	0	0	0	0.0	130	1	2	133	136.3	6	0	0	6	6.0
16:15 - 16:30	0	0	0	0	0.0	139	0	2	141	143.0	6	0	0	6	6.0
16:30 - 16:45	0	0	0	0	0.0	102	0	1	103	104.0	6	0	0	6	6.0
16:45 - 17:00	0	0	0	0	0.0	120	1	2	123	126.3	8	0	0	8	8.0
Hourly Total	0	0	0	0	0.0	491	2	7	500	509.6	26	0	0	26	26.0
TOTAL	1	0	0	1	1.0	3708	12	76	3796	3887.6	157	0	0	157	157.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	6
1050	2
1055	4
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	0
1135	4
1140	0
1145	13
1150	0
1155	0
1200	2
1205	0
1210	5
1215	0
1220	0
1225	0
1230	0
1235	0
1240	0
1245	0
1250	0
1255	0
1300	6
1305	2
1310	6
1315	0
1320	5
1325	0

TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	0
1345	1
1350	0
1355	0
1400	7
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0
1500	0
1505	3
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	3
1545	0
1550	3
1555	0
1600	0
1605	5
1610	0
1615	0
1620	5
1625	0
1630	0
1635	1
1640	0
1645	0
1650	0
1655	1
1700	1

Rainhill, Saturday 22nd May 2021

Junction: 1
Approach: Access Road



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Westbound)					To Holt Lane					To A57 Warrington Road (Eastbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
10:15 - 10:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
10:30 - 10:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
10:45 - 11:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
11:00 - 11:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:15 - 11:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:30 - 11:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:45 - 12:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:00 - 12:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:15 - 12:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:30 - 12:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:45 - 13:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:00 - 13:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:15 - 13:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:30 - 13:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:45 - 14:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:00 - 14:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:15 - 14:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
14:30 - 14:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
14:45 - 15:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
15:00 - 15:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:15 - 15:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:30 - 15:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
15:45 - 16:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:00 - 16:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:15 - 16:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:30 - 16:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
TOTAL	2	0	0	2	2.0	0	0	0	0	0.0	0	0	0	0	0.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	0
1050	0
1055	0
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	0
1135	0
1140	0
1145	0
1150	0
1155	0
1200	0
1205	0
1210	0
1215	0
1220	0
1225	0
1230	0
1235	0
1240	0
1245	0
1250	0
1255	0
1300	0
1305	0
1310	0
1315	0
1320	0
1325	0

TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	0
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0

Rainhill, Saturday 22nd May 2021

Junction: 1
Approach: A57 Warrington Road Eastbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Holt Lane					To A57 Warrington Road (Eastbound)					To Access Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	5	0	0	5	5.0	89	0	1	90	91.0	0	0	0	0	0.0
10:15 - 10:30	11	0	0	11	11.0	101	0	2	103	105.0	0	0	0	0	0.0
10:30 - 10:45	9	0	0	9	9.0	128	1	2	131	134.3	0	0	0	0	0.0
10:45 - 11:00	7	0	1	8	9.0	112	0	3	115	118.0	0	0	0	0	0.0
Hourly Total	32	0	1	33	34.0	430	1	8	439	448.3	0	0	0	0	0.0
11:00 - 11:15	10	0	0	10	10.0	122	2	2	126	130.6	0	0	0	0	0.0
11:15 - 11:30	4	0	0	4	4.0	125	1	1	127	129.3	0	0	0	0	0.0
11:30 - 11:45	7	0	0	7	7.0	116	1	5	122	128.3	0	0	0	0	0.0
11:45 - 12:00	7	0	0	7	7.0	101	3	2	106	111.9	0	0	0	0	0.0
Hourly Total	28	0	0	28	28.0	464	7	10	481	500.1	0	0	0	0	0.0
12:00 - 12:15	9	0	1	10	11.0	135	0	2	137	139.0	0	0	0	0	0.0
12:15 - 12:30	9	0	0	9	9.0	148	1	3	152	156.3	0	0	0	0	0.0
12:30 - 12:45	13	0	0	13	13.0	140	0	1	141	142.0	0	0	0	0	0.0
12:45 - 13:00	9	0	1	10	11.0	133	0	4	137	141.0	0	0	0	0	0.0
Hourly Total	40	0	2	42	44.0	556	1	10	567	578.3	0	0	0	0	0.0
13:00 - 13:15	8	0	0	8	8.0	133	0	2	135	137.0	0	0	0	0	0.0
13:15 - 13:30	16	0	0	16	16.0	126	1	3	130	134.3	0	0	0	0	0.0
13:30 - 13:45	9	0	0	9	9.0	123	0	3	126	129.0	0	0	0	0	0.0
13:45 - 14:00	8	0	1	9	10.0	135	0	3	138	141.0	0	0	0	0	0.0
Hourly Total	41	0	1	42	43.0	517	1	11	529	541.3	0	0	0	0	0.0
14:00 - 14:15	7	0	0	7	7.0	113	0	2	115	117.0	0	0	0	0	0.0
14:15 - 14:30	6	0	0	6	6.0	134	0	1	135	136.0	0	0	0	0	0.0
14:30 - 14:45	9	0	0	9	9.0	115	0	4	119	123.0	0	0	0	0	0.0
14:45 - 15:00	7	0	0	7	7.0	130	1	2	133	136.3	0	0	0	0	0.0
Hourly Total	29	0	0	29	29.0	492	1	9	502	512.3	0	0	0	0	0.0
15:00 - 15:15	6	0	1	7	8.0	143	0	1	144	145.0	0	0	0	0	0.0
15:15 - 15:30	15	0	0	15	15.0	106	0	4	110	114.0	0	0	0	0	0.0
15:30 - 15:45	10	0	0	10	10.0	146	1	1	148	150.3	0	0	0	0	0.0
15:45 - 16:00	8	0	0	8	8.0	138	0	4	142	146.0	0	0	0	0	0.0
Hourly Total	39	0	1	40	41.0	533	1	10	544	555.3	0	0	0	0	0.0
16:00 - 16:15	14	0	1	15	16.0	146	0	2	148	150.0	0	0	0	0	0.0
16:15 - 16:30	7	0	0	7	7.0	113	0	3	116	119.0	0	0	0	0	0.0
16:30 - 16:45	5	0	0	5	5.0	114	0	3	117	120.0	0	0	0	0	0.0
16:45 - 17:00	8	0	1	9	10.0	112	0	4	116	120.0	0	0	0	0	0.0
Hourly Total	34	0	2	36	38.0	485	0	12	497	509.0	0	0	0	0	0.0
TOTAL	243	0	7	250	257.0	3477	12	70	3559	3644.6	0	0	0	0	0.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	1
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	0
1050	0
1055	8
1100	0
1105	0
1110	0
1115	0
1120	2
1125	0
1130	0
1135	1
1140	0
1145	0
1150	0
1155	0
1200	0
1205	0
1210	0
1215	0
1220	2
1225	0
1230	0
1235	0
1240	0
1245	18
1250	1
1255	0
1300	0
1305	4
1310	0
1315	3
1320	1
1325	0

TIME	Queue Lengths (Vehicles)
1330	4
1335	0
1340	0
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	4
1610	4
1615	0
1620	3
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	5
1700	2

Rainhill, Friday 21st May 2021

Junction: 2
Approach: Longview Road



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Eastbound)					To Whiston Hospital					To A57 Warrington Road (Westbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
07:15 - 07:30	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
07:30 - 07:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
07:45 - 08:00	1	0	0	1	1.0	1	0	0	1	1.0	5	0	0	5	5.0
Hourly Total	2	0	0	2	2.0	1	0	0	1	1.0	8	0	0	8	8.0
08:00 - 08:15	2	0	0	2	2.0	0	0	0	0	0.0	3	0	0	3	3.0
08:15 - 08:30	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
08:30 - 08:45	1	0	0	1	1.0	0	0	0	0	0.0	4	0	0	4	4.0
08:45 - 09:00	1	0	0	1	1.0	1	0	0	1	1.0	8	0	0	8	8.0
Hourly Total	5	0	0	5	5.0	1	0	0	1	1.0	16	0	0	16	16.0
09:00 - 09:15	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
09:15 - 09:30	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
09:30 - 09:45	3	0	0	3	3.0	1	0	0	1	1.0	3	0	0	3	3.0
09:45 - 10:00	0	0	0	0	0.0	2	0	0	2	2.0	4	0	0	4	4.0
Hourly Total	4	0	0	4	4.0	3	0	0	3	3.0	7	0	0	7	7.0
10:00 - 10:15	1	0	0	1	1.0	0	0	0	0	0.0	5	0	0	5	5.0
10:15 - 10:30	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
10:30 - 10:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
10:45 - 11:00	2	0	0	2	2.0	1	0	0	1	1.0	4	0	0	4	4.0
Hourly Total	4	0	0	4	4.0	1	0	0	1	1.0	10	0	0	10	10.0
11:00 - 11:15	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
11:15 - 11:30	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
11:30 - 11:45	1	0	0	1	1.0	1	0	0	1	1.0	2	0	0	2	2.0
11:45 - 12:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	1	0	0	1	1.0	3	0	0	3	3.0
12:00 - 12:15	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
12:15 - 12:30	1	0	0	1	1.0	1	0	0	1	1.0	2	0	0	2	2.0
12:30 - 12:45	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
12:45 - 13:00	1	0	0	1	1.0	2	0	0	2	2.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	3	0	0	3	3.0	6	0	0	6	6.0
13:00 - 13:15	2	0	0	2	2.0	2	0	0	2	2.0	1	0	0	1	1.0
13:15 - 13:30	2	0	0	2	2.0	0	0	0	0	0.0	1	0	0	1	1.0
13:30 - 13:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
13:45 - 14:00	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	5	0	0	5	5.0	2	0	0	2	2.0	2	0	0	2	2.0
14:00 - 14:15	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
14:15 - 14:30	0	0	0	0	0.0	1	0	0	1	1.0	0	0	0	0	0.0
14:30 - 14:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
14:45 - 15:00	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	1	0	0	1	1.0	1	0	0	1	1.0	2	0	0	2	2.0
15:00 - 15:15	1	0	0	1	1.0	1	0	0	1	1.0	1	0	0	1	1.0
15:15 - 15:30	0	0	0	0	0.0	2	0	0	2	2.0	4	0	0	4	4.0
15:30 - 15:45	3	0	0	3	3.0	5	0	0	5	5.0	1	0	0	1	1.0
15:45 - 16:00	3	0	0	3	3.0	1	0	0	1	1.0	4	0	0	4	4.0
Hourly Total	7	0	0	7	7.0	9	0	0	9	9.0	10	0	0	10	10.0
16:00 - 16:15	1	0	0	1	1.0	0	0	0	0	0.0	7	0	0	7	7.0
16:15 - 16:30	3	0	0	3	3.0	0	0	0	0	0.0	7	0	0	7	7.0
16:30 - 16:45	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
16:45 - 17:00	1	0	0	1	1.0	1	0	0	1	1.0	0	0	0	0	0.0
Hourly Total	6	0	0	6	6.0	1	0	0	1	1.0	14	0	0	14	14.0
17:00 - 17:15	2	0	0	2	2.0	1	0	0	1	1.0	1	0	0	1	1.0
17:15 - 17:30	2	0	0	2	2.0	0	0	0	0	0.0	3	0	0	3	3.0
17:30 - 17:45	1	0	0	1	1.0	1	0	0	1	1.0	0	0	0	0	0.0
17:45 - 18:00	1	0	0	1	1.0	0	0	0	0	0.0	5	0	0	5	5.0
Hourly Total	6	0	0	6	6.0	2	0	0	2	2.0	9	0	0	9	9.0
18:00 - 18:15	1	0	0	1	1.0	0	0	0	0	0.0	5	0	0	5	5.0
18:15 - 18:30	1	0	0	1	1.0	0	0	0	0	0.0	0	0	0	0	0.0
18:30 - 18:45	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
18:45 - 19:00	1	0	0	1	1.0	0	0	0	0	0.0	2	0	0	2	2.0
Hourly Total	3	0	0	3	3.0	0	0	0	0	0.0	9	0	0	9	9.0
TOTAL	47	0	0	47	47.0	25	0	0	25	25.0	96	0	0	96	96.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	0
720	0
725	0
730	0
735	0
740	0
745	0
750	0
755	0
800	0
805	0
810	0
815	0
820	0
825	0
830	0
835	0
840	0
845	0
850	0
855	0
900	0
905	0
910	0
915	0
920	0
925	0
930	0
935	0
940	0
945	0
950	2
955	0
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	0
1050	0
1055	0

TIME	Queue Lengths (Vehicles)
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	0
1135	0
1140	0
1145	0
1150	0
1155	0
1200	0
1205	0
1210	0
1215	0
1220	0
1225	0
1230	0
1235	0
1240	0
1245	0
1250	0
1255	0
1300	1
1305	0
1310	1
1315	0
1320	0
1325	0
1330	0
1335	0
1340	0
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0

TIME	Queue Lengths (Vehicles)
1500	0
1505	0
1510	0
1515	0
1520	0
1525	0
1530	0
1535	2
1540	0
1545	0
1550	0
1555	3
1600	0
1605	2
1610	0
1615	0
1620	3
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0
1705	0
1710	0
1715	0
1720	0
1725	0
1730	0
1735	0
1740	0
1745	0
1750	3
1755	0
1800	0
1805	0
1810	0
1815	0
1820	0
1825	0
1830	0
1835	0
1840	0
1845	0
1850	0
1855	0
1900	0

Rainhill, Friday 21st May 2021

Junction: 2
Approach: A57 Warrington Road Westbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

	To Whiston Hospital					To A57 Warrington Road (Westbound)					To Longview Road				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	7	0	0	7	7.0	50	2	2	54	58.6	0	0	0	0	0.0
07:15 - 07:30	14	0	0	14	14.0	84	2	3	89	94.6	0	0	0	0	0.0
07:30 - 07:45	27	0	0	27	27.0	99	3	3	105	111.9	1	0	0	1	1.0
07:45 - 08:00	15	0	0	15	15.0	164	2	3	169	174.6	0	0	0	0	0.0
Hourly Total	63	0	0	63	63.0	397	9	11	417	439.7	1	0	0	1	1.0
08:00 - 08:15	17	0	0	17	17.0	144	3	4	151	158.9	1	0	0	1	1.0
08:15 - 08:30	15	0	0	15	15.0	158	2	3	163	168.6	1	0	0	1	1.0
08:30 - 08:45	8	0	0	8	8.0	180	2	2	184	188.6	0	0	0	0	0.0
08:45 - 09:00	9	0	0	9	9.0	178	2	3	183	188.6	1	0	0	1	1.0
Hourly Total	49	0	0	49	49.0	660	9	12	681	704.7	3	0	0	3	3.0
09:00 - 09:15	21	0	0	21	21.0	148	5	3	156	165.5	2	0	0	2	2.0
09:15 - 09:30	15	0	0	15	15.0	96	2	4	102	108.6	0	0	0	0	0.0
09:30 - 09:45	13	0	0	13	13.0	104	2	3	109	114.6	3	0	0	3	3.0
09:45 - 10:00	14	0	0	14	14.0	111	3	3	117	123.9	2	0	0	2	2.0
Hourly Total	63	0	0	63	63.0	459	12	13	484	512.6	7	0	0	7	7.0
10:00 - 10:15	12	0	0	12	12.0	110	4	4	118	127.2	1	0	0	1	1.0
10:15 - 10:30	16	0	0	16	16.0	107	0	2	109	111.0	2	0	0	2	2.0
10:30 - 10:45	25	0	0	25	25.0	102	4	4	110	119.2	1	0	0	1	1.0
10:45 - 11:00	16	0	0	16	16.0	114	5	3	122	131.5	0	0	0	0	0.0
Hourly Total	69	0	0	69	69.0	433	13	13	459	488.9	4	0	0	4	4.0
11:00 - 11:15	9	0	0	9	9.0	124	5	2	131	139.5	1	0	0	1	1.0
11:15 - 11:30	12	0	0	12	12.0	121	6	2	129	138.8	1	0	0	1	1.0
11:30 - 11:45	11	0	0	11	11.0	109	3	4	116	123.9	0	0	0	0	0.0
11:45 - 12:00	18	0	0	18	18.0	121	3	3	127	133.9	2	0	0	2	2.0
Hourly Total	50	0	0	50	50.0	475	17	11	503	536.1	4	0	0	4	4.0
12:00 - 12:15	6	0	0	6	6.0	124	8	2	134	146.4	1	0	0	1	1.0
12:15 - 12:30	9	0	0	9	9.0	168	4	4	176	185.2	1	0	0	1	1.0
12:30 - 12:45	10	0	0	10	10.0	109	1	3	113	117.3	0	0	0	0	0.0
12:45 - 13:00	15	0	0	15	15.0	145	1	4	150	155.3	1	0	0	1	1.0
Hourly Total	40	0	0	40	40.0	546	14	13	573	604.2	3	0	0	3	3.0
13:00 - 13:15	13	0	0	13	13.0	161	2	2	165	169.6	1	0	0	1	1.0
13:15 - 13:30	8	0	0	8	8.0	124	3	3	130	136.9	0	0	0	0	0.0
13:30 - 13:45	9	0	0	9	9.0	115	5	5	125	136.5	0	0	0	0	0.0
13:45 - 14:00	12	0	0	12	12.0	120	6	1	127	135.8	0	0	0	0	0.0
Hourly Total	42	0	0	42	42.0	520	16	11	547	578.8	1	0	0	1	1.0
14:00 - 14:15	9	0	0	9	9.0	129	2	4	135	141.6	0	0	0	0	0.0
14:15 - 14:30	8	0	0	8	8.0	114	2	3	119	124.6	0	0	0	0	0.0
14:30 - 14:45	15	0	0	15	15.0	120	2	3	125	130.6	2	0	0	2	2.0
14:45 - 15:00	16	0	0	16	16.0	134	3	3	140	146.9	0	0	0	0	0.0
Hourly Total	48	0	0	48	48.0	497	9	13	519	543.7	2	0	0	2	2.0
15:00 - 15:15	9	0	0	9	9.0	133	0	1	134	135.0	2	0	0	2	2.0
15:15 - 15:30	7	0	0	7	7.0	151	1	0	152	153.3	1	0	0	1	1.0
15:30 - 15:45	13	0	0	13	13.0	167	1	4	172	177.3	1	0	0	1	1.0
15:45 - 16:00	21	0	0	21	21.0	167	4	6	177	188.2	2	0	0	2	2.0
Hourly Total	50	0	0	50	50.0	618	6	11	635	653.8	6	0	0	6	6.0
16:00 - 16:15	9	0	0	9	9.0	165	2	3	170	175.6	1	0	0	1	1.0
16:15 - 16:30	9	0	0	9	9.0	151	2	3	156	161.6	1	0	0	1	1.0
16:30 - 16:45	15	0	0	15	15.0	140	1	3	144	148.3	0	0	0	0	0.0
16:45 - 17:00	15	0	0	15	15.0	141	1	2	144	147.3	0	0	0	0	0.0
Hourly Total	48	0	0	48	48.0	597	6	11	614	632.8	2	0	0	2	2.0
17:00 - 17:15	6	0	0	6	6.0	156	1	1	158	160.3	1	0	0	1	1.0
17:15 - 17:30	15	0	0	15	15.0	152	1	4	157	162.3	3	0	0	3	3.0
17:30 - 17:45	6	0	0	6	6.0	155	0	5	160	165.0	1	0	0	1	1.0
17:45 - 18:00	13	0	0	13	13.0	136	0	1	137	138.0	1	0	0	1	1.0
Hourly Total	40	0	0	40	40.0	599	2	11	612	625.6	6	0	0	6	6.0
18:00 - 18:15	15	0	0	15	15.0	131	0	2	133	135.0	1	0	0	1	1.0
18:15 - 18:30	8	0	0	8	8.0	155	0	2	157	159.0	0	0	0	0	0.0
18:30 - 18:45	12	0	0	12	12.0	120	0	2	122	124.0	0	0	0	0	0.0
18:45 - 19:00	6	0	0	6	6.0	123	1	2	126	129.3	3	0	0	3	3.0
Hourly Total	41	0	0	41	41.0	529	1	8	538	547.3	4	0	0	4	4.0
TOTAL	603	0	0	603	603.0	6330	114	138	6582	6868.2	43	0	0	43	43.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	2
720	0
725	0
730	2
735	0
740	5
745	0
750	0
755	3
800	3
805	4
810	0
815	7
820	0
825	0
830	3
835	8
840	0
845	6
850	6
855	2
900	0
905	0
910	3
915	2
920	0
925	5
930	0
935	11
940	6
945	0
950	0
955	3
1000	3
1005	2
1010	2
1015	0
1020	0
1025	3
1030	2
1035	0
1040	5
1045	1
1050	0
1055	2

TIME	Queue Lengths (Vehicles)
1100	4
1105	0
1110	3
1115	4
1120	3
1125	0
1130	3
1135	6
1140	0
1145	2
1150	2
1155	0
1200	2
1205	3
1210	0
1215	6
1220	0
1225	0
1230	0
1235	2
1240	2
1245	2
1250	1
1255	6
1300	0
1305	2
1310	13
1315	0
1320	6
1325	0
1330	0
1335	0
1340	2
1345	0
1350	2
1355	1
1400	1
1405	0
1410	5
1415	2
1420	0
1425	4
1430	3
1435	2
1440	2
1445	6
1450	2
1455	0

TIME	Queue Lengths (Vehicles)
1500	2
1505	0
1510	2
1515	0
1520	2
1525	0
1530	3
1535	3
1540	2
1545	0
1550	0
1555	2
1600	3
1605	4
1610	0
1615	2
1620	0
1625	3
1630	3
1635	3
1640	4
1645	2
1650	0
1655	0
1700	5
1705	0
1710	2
1715	2
1720	0
1725	0
1730	1
1735	1
1740	2
1745	0
1750	0
1755	1
1800	2
1805	1
1810	0
1815	1
1820	2
1825	0
1830	0
1835	0
1840	4
1845	1
1850	0
1855	1
1900	0

Rainhill, Friday 21st May 2021

Junction: 2
Approach: Whiston Hospital



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

	To A57 Warrington Road (Westbound)					To Longview Road					To A57 Warrington Road (Eastbound)				
TIME	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	9	0	0	9	9.0	0	0	0	0	0.0	9	0	0	9	9.0
07:15 - 07:30	26	0	0	26	26.0	0	0	0	0	0.0	10	0	0	10	10.0
07:30 - 07:45	23	0	0	23	23.0	0	0	0	0	0.0	25	0	0	25	25.0
07:45 - 08:00	25	0	0	25	25.0	0	0	0	0	0.0	20	0	0	20	20.0
Hourly Total	83	0	0	83	83.0	0	0	0	0	0.0	64	0	0	64	64.0
08:00 - 08:15	20	0	0	20	20.0	2	0	0	2	2.0	13	0	0	13	13.0
08:15 - 08:30	25	0	0	25	25.0	0	0	0	0	0.0	13	0	0	13	13.0
08:30 - 08:45	19	0	0	19	19.0	0	0	0	0	0.0	8	0	0	8	8.0
08:45 - 09:00	20	0	0	20	20.0	0	0	0	0	0.0	5	0	0	5	5.0
Hourly Total	84	0	0	84	84.0	2	0	0	2	2.0	39	0	0	39	39.0
09:00 - 09:15	15	0	0	15	15.0	1	0	0	1	1.0	14	0	0	14	14.0
09:15 - 09:30	31	0	0	31	31.0	4	0	0	4	4.0	12	0	0	12	12.0
09:30 - 09:45	24	0	0	24	24.0	0	0	0	0	0.0	13	0	0	13	13.0
09:45 - 10:00	15	0	0	15	15.0	2	0	0	2	2.0	6	0	0	6	6.0
Hourly Total	85	0	0	85	85.0	7	0	0	7	7.0	45	0	0	45	45.0
10:00 - 10:15	17	0	0	17	17.0	0	0	0	0	0.0	15	0	0	15	15.0
10:15 - 10:30	20	0	0	20	20.0	0	0	0	0	0.0	12	0	0	12	12.0
10:30 - 10:45	24	0	0	24	24.0	1	0	0	1	1.0	11	0	0	11	11.0
10:45 - 11:00	30	0	0	30	30.0	1	0	0	1	1.0	7	0	0	7	7.0
Hourly Total	91	0	0	91	91.0	2	0	0	2	2.0	45	0	0	45	45.0
11:00 - 11:15	23	0	0	23	23.0	0	0	0	0	0.0	17	0	0	17	17.0
11:15 - 11:30	15	0	0	15	15.0	1	0	0	1	1.0	11	0	0	11	11.0
11:30 - 11:45	14	0	0	14	14.0	1	0	0	1	1.0	12	0	0	12	12.0
11:45 - 12:00	20	0	0	20	20.0	0	0	0	0	0.0	13	0	0	13	13.0
Hourly Total	72	0	0	72	72.0	2	0	0	2	2.0	53	0	0	53	53.0
12:00 - 12:15	29	0	0	29	29.0	0	0	0	0	0.0	21	0	0	21	21.0
12:15 - 12:30	26	0	0	26	26.0	3	0	0	3	3.0	8	0	0	8	8.0
12:30 - 12:45	22	0	0	22	22.0	0	0	0	0	0.0	8	0	0	8	8.0
12:45 - 13:00	25	0	0	25	25.0	2	0	0	2	2.0	7	0	0	7	7.0
Hourly Total	102	0	0	102	102.0	5	0	0	5	5.0	44	0	0	44	44.0
13:00 - 13:15	24	0	0	24	24.0	0	0	0	0	0.0	21	0	0	21	21.0
13:15 - 13:30	22	0	0	22	22.0	0	0	0	0	0.0	9	0	0	9	9.0
13:30 - 13:45	17	0	0	17	17.0	1	0	0	1	1.0	15	0	0	15	15.0
13:45 - 14:00	20	0	0	20	20.0	0	0	0	0	0.0	11	0	0	11	11.0
Hourly Total	83	0	0	83	83.0	1	0	0	1	1.0	56	0	0	56	56.0
14:00 - 14:15	23	0	0	23	23.0	1	0	0	1	1.0	12	0	0	12	12.0
14:15 - 14:30	28	0	0	28	28.0	1	0	0	1	1.0	12	0	0	12	12.0
14:30 - 14:45	29	0	0	29	29.0	1	0	0	1	1.0	17	0	0	17	17.0
14:45 - 15:00	24	0	0	24	24.0	0	0	0	0	0.0	17	0	0	17	17.0
Hourly Total	104	0	0	104	104.0	3	0	0	3	3.0	58	0	0	58	58.0
15:00 - 15:15	24	0	0	24	24.0	1	0	0	1	1.0	17	0	0	17	17.0
15:15 - 15:30	23	0	0	23	23.0	4	0	0	4	4.0	11	0	0	11	11.0
15:30 - 15:45	28	0	0	28	28.0	1	0	0	1	1.0	12	0	0	12	12.0
15:45 - 16:00	33	0	0	33	33.0	1	0	0	1	1.0	21	0	0	21	21.0
Hourly Total	108	0	0	108	108.0	7	0	0	7	7.0	61	0	0	61	61.0
16:00 - 16:15	40	0	0	40	40.0	0	0	0	0	0.0	20	0	0	20	20.0
16:15 - 16:30	37	0	0	37	37.0	0	0	0	0	0.0	21	0	0	21	21.0
16:30 - 16:45	32	0	0	32	32.0	0	0	0	0	0.0	14	0	0	14	14.0
16:45 - 17:00	33	0	0	33	33.0	1	0	0	1	1.0	23	0	0	23	23.0
Hourly Total	142	0	0	142	142.0	1	0	0	1	1.0	78	0	0	78	78.0
17:00 - 17:15	25	0	0	25	25.0	1	0	0	1	1.0	17	0	0	17	17.0
17:15 - 17:30	36	0	0	36	36.0	0	0	0	0	0.0	23	0	0	23	23.0
17:30 - 17:45	20	0	0	20	20.0	1	0	0	1	1.0	15	0	0	15	15.0
17:45 - 18:00	22	0	0	22	22.0	0	0	0	0	0.0	19	0	0	19	19.0
Hourly Total	103	0	0	103	103.0	2	0	0	2	2.0	74	0	0	74	74.0
18:00 - 18:15	17	0	0	17	17.0	0	0	0	0	0.0	13	0	0	13	13.0
18:15 - 18:30	19	0	0	19	19.0	0	0	0	0	0.0	12	0	0	12	12.0
18:30 - 18:45	12	0	0	12	12.0	0	0	0	0	0.0	16	0	0	16	16.0
18:45 - 19:00	15	0	0	15	15.0	0	0	0	0	0.0	13	0	0	13	13.0
Hourly Total	63	0	0	63	63.0	0	0	0	0	0.0	54	0	0	54	54.0
TOTAL	1120	0	0	1120	1120.0	32	0	0	32	32.0	671	0	0	671	671.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	0
710	0
715	0
720	0
725	1
730	0
735	0
740	2
745	1
750	0
755	2
800	2
805	0
810	2
815	0
820	2
825	0
830	3
835	1
840	2
845	0
850	1
855	2
900	2
905	3
910	0
915	2
920	0
925	3
930	0
935	2
940	2
945	0
950	2
955	2
1000	0
1005	2
1010	1
1015	1
1020	0
1025	2
1030	1
1035	0
1040	1
1045	1
1050	3
1055	2

TIME	Queue Lengths (Vehicles)
1100	2
1105	0
1110	2
1115	3
1120	2
1125	0
1130	2
1135	2
1140	1
1145	1
1150	2
1155	4
1200	0
1205	2
1210	2
1215	3
1220	0
1225	3
1230	3
1235	2
1240	1
1245	2
1250	0
1255	0
1300	2
1305	2
1310	1
1315	1
1320	2
1325	1
1330	2
1335	2
1340	3
1345	2
1350	2
1355	0
1400	2
1405	2
1410	2
1415	2
1420	4
1425	2
1430	2
1435	4
1440	3
1445	3
1450	4
1455	2

TIME	Queue Lengths (Vehicles)
1500	2
1505	0
1510	1
1515	3
1520	4
1525	2
1530	7
1535	4
1540	2
1545	4
1550	8
1555	3
1600	5
1605	8
1610	7
1615	4
1620	8
1625	0
1630	7
1635	3
1640	5
1645	5
1650	4
1655	3
1700	0
1705	1
1710	3
1715	5
1720	1
1725	3
1730	0
1735	4
1740	4
1745	3
1750	0
1755	0
1800	3
1805	3
1810	0
1815	3
1820	2
1825	0
1830	3
1835	3
1840	0
1845	3
1850	4
1855	2
1900	0

Rainhill, Friday 21st May 2021

Junction: 2
Approach: A57 Warrington Road Eastbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Longview Road					To A57 Warrington Road (Eastbound)					To Whiston Hospital				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
07:00 - 07:15	0	0	0	0	0.0	47	3	1	51	55.9	16	0	0	16	16.0
07:15 - 07:30	2	0	0	2	2.0	77	2	1	80	83.6	23	0	0	23	23.0
07:30 - 07:45	0	0	0	0	0.0	110	1	2	113	116.3	35	0	0	35	35.0
07:45 - 08:00	3	0	0	3	3.0	102	2	3	107	112.6	38	0	0	38	38.0
Hourly Total	5	0	0	5	5.0	336	8	7	351	368.4	112	0	0	112	112.0
08:00 - 08:15	1	0	0	1	1.0	135	1	2	138	141.3	25	0	0	25	25.0
08:15 - 08:30	1	0	0	1	1.0	157	3	5	165	173.9	28	0	0	28	28.0
08:30 - 08:45	1	0	0	1	1.0	122	0	5	127	132.0	29	0	0	29	29.0
08:45 - 09:00	5	0	0	5	5.0	89	1	1	91	93.3	31	0	0	31	31.0
Hourly Total	8	0	0	8	8.0	503	5	13	521	540.5	113	0	0	113	113.0
09:00 - 09:15	2	0	0	2	2.0	104	2	4	110	116.6	33	0	0	33	33.0
09:15 - 09:30	1	0	0	1	1.0	115	2	2	119	123.6	32	0	0	32	32.0
09:30 - 09:45	2	0	0	2	2.0	77	3	3	83	89.9	27	0	0	27	27.0
09:45 - 10:00	0	0	0	0	0.0	87	2	5	94	101.6	26	0	0	26	26.0
Hourly Total	5	0	0	5	5.0	383	9	14	406	431.7	118	0	0	118	118.0
10:00 - 10:15	2	0	0	2	2.0	82	0	1	83	84.0	24	0	0	24	24.0
10:15 - 10:30	2	0	0	2	2.0	99	3	5	107	115.9	17	0	0	17	17.0
10:30 - 10:45	3	0	0	3	3.0	97	4	2	103	110.2	34	0	0	34	34.0
10:45 - 11:00	1	0	0	1	1.0	125	3	4	132	139.9	24	0	0	24	24.0
Hourly Total	8	0	0	8	8.0	403	10	12	425	450.0	99	0	0	99	99.0
11:00 - 11:15	2	0	0	2	2.0	114	1	3	118	122.3	31	0	0	31	31.0
11:15 - 11:30	0	0	0	0	0.0	112	1	4	117	122.3	29	0	0	29	29.0
11:30 - 11:45	1	0	0	1	1.0	109	7	4	120	133.1	14	0	0	14	14.0
11:45 - 12:00	1	0	0	1	1.0	115	6	1	122	130.8	27	0	0	27	27.0
Hourly Total	4	0	0	4	4.0	450	15	12	477	508.5	101	0	0	101	101.0
12:00 - 12:15	1	0	0	1	1.0	130	4	3	137	145.2	22	0	0	22	22.0
12:15 - 12:30	1	0	0	1	1.0	160	2	3	165	170.6	18	0	0	18	18.0
12:30 - 12:45	3	0	0	3	3.0	145	3	2	150	155.9	21	0	0	21	21.0
12:45 - 13:00	2	0	0	2	2.0	128	2	3	133	138.6	29	0	0	29	29.0
Hourly Total	7	0	0	7	7.0	563	11	11	585	610.3	90	0	0	90	90.0
13:00 - 13:15	0	0	0	0	0.0	154	4	3	161	169.2	27	0	0	27	27.0
13:15 - 13:30	2	0	0	2	2.0	144	4	3	151	159.2	19	0	0	19	19.0
13:30 - 13:45	1	0	0	1	1.0	112	3	2	117	122.9	26	0	0	26	26.0
13:45 - 14:00	1	0	0	1	1.0	124	4	2	130	137.2	22	0	0	22	22.0
Hourly Total	4	0	0	4	4.0	534	15	10	559	588.5	94	0	0	94	94.0
14:00 - 14:15	0	0	0	0	0.0	125	3	5	133	141.9	21	0	0	21	21.0
14:15 - 14:30	2	0	0	2	2.0	120	1	2	123	126.3	29	0	0	29	29.0
14:30 - 14:45	2	0	0	2	2.0	144	2	4	150	156.6	24	0	0	24	24.0
14:45 - 15:00	0	0	0	0	0.0	177	2	2	181	185.6	26	0	0	26	26.0
Hourly Total	4	0	0	4	4.0	566	8	13	587	610.4	100	0	0	100	100.0
15:00 - 15:15	0	0	0	0	0.0	154	1	4	159	164.3	26	0	0	26	26.0
15:15 - 15:30	0	0	0	0	0.0	177	2	5	184	191.6	20	0	0	20	20.0
15:30 - 15:45	4	0	0	4	4.0	147	0	4	151	155.0	26	0	0	26	26.0
15:45 - 16:00	2	0	0	2	2.0	122	3	2	127	132.9	27	0	0	27	27.0
Hourly Total	6	0	0	6	6.0	600	6	15	621	643.8	99	0	0	99	99.0
16:00 - 16:15	2	0	0	2	2.0	178	0	6	184	190.0	31	0	0	31	31.0
16:15 - 16:30	3	0	0	3	3.0	134	2	0	136	138.6	31	0	0	31	31.0
16:30 - 16:45	1	0	0	1	1.0	155	2	6	163	171.6	29	0	0	29	29.0
16:45 - 17:00	4	0	0	4	4.0	176	2	5	183	190.6	28	0	0	28	28.0
Hourly Total	10	0	0	10	10.0	643	6	17	666	690.8	119	0	0	119	119.0
17:00 - 17:15	0	0	0	0	0.0	180	0	0	180	180.0	22	0	0	22	22.0
17:15 - 17:30	3	0	0	3	3.0	175	0	6	181	187.0	20	0	0	20	20.0
17:30 - 17:45	1	0	0	1	1.0	166	0	4	170	174.0	21	0	0	21	21.0
17:45 - 18:00	3	0	0	3	3.0	137	0	3	140	143.0	10	0	0	10	10.0
Hourly Total	7	0	0	7	7.0	658	0	13	671	684.0	73	0	0	73	73.0
18:00 - 18:15	1	0	0	1	1.0	133	2	4	139	145.6	14	0	0	14	14.0
18:15 - 18:30	4	0	0	4	4.0	112	1	1	114	116.3	17	0	0	17	17.0
18:30 - 18:45	1	0	0	1	1.0	135	0	5	140	145.0	12	0	0	12	12.0
18:45 - 19:00	2	0	0	2	2.0	125	0	3	128	131.0	21	0	0	21	21.0
Hourly Total	8	0	0	8	8.0	505	3	13	521	537.9	64	0	0	64	64.0
TOTAL	76	0	0	76	76.0	6144	96	150	6390	6664.8	1182	0	0	1182	1182.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
700	0
705	2
710	0
715	0
720	2
725	2
730	0
735	5
740	2
745	0
750	2
755	3
800	3
805	4
810	0
815	2
820	3
825	3
830	4
835	0
840	2
845	0
850	0
855	2
900	3
905	6
910	2
915	2
920	3
925	0
930	3
935	4
940	0
945	3
950	3
955	0
1000	2
1005	0
1010	2
1015	0
1020	3
1025	0
1030	3
1035	3
1040	0
1045	2
1050	0
1055	2

TIME	Queue Lengths (Vehicles)
1100	1
1105	7
1110	0
1115	5
1120	0
1125	2
1130	2
1135	2
1140	7
1145	9
1150	0
1155	5
1200	3
1205	2
1210	6
1215	3
1220	3
1225	3
1230	2
1235	6
1240	2
1245	0
1250	0
1255	2
1300	1
1305	0
1310	1
1315	4
1320	0
1325	1
1330	1
1335	6
1340	2
1345	0
1350	3
1355	1
1400	0
1405	1
1410	15
1415	2
1420	2
1425	0
1430	2
1435	0
1440	2
1445	6
1450	0
1455	2

TIME	Queue Lengths (Vehicles)
1500	0
1505	2
1510	0
1515	2
1520	0
1525	0
1530	0
1535	4
1540	2
1545	0
1550	6
1555	0
1600	2
1605	2
1610	3
1615	6
1620	3
1625	3
1630	4
1635	2
1640	0
1645	6
1650	3
1655	3
1700	3
1705	6
1710	4
1715	1
1720	1
1725	1
1730	2
1735	1
1740	0
1745	0
1750	2
1755	0
1800	3
1805	2
1810	8
1815	0
1820	1
1825	0
1830	2
1835	0
1840	1
1845	0
1850	0
1855	0
1900	0

Rainhill, Saturday 22nd May 2021

Junction: 2
Approach: Longview Road



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Eastbound)					To Whiston Hospital					To A57 Warrington Road (Westbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	1	0	0	1	1.0	0	0	0	0	0.0	1	0	0	1	1.0
10:15 - 10:30	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
10:30 - 10:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
10:45 - 11:00	1	0	0	1	1.0	0	0	0	0	0.0	4	0	0	4	4.0
Hourly Total	2	0	0	2	2.0	0	0	0	0	0.0	8	0	0	8	8.0
11:00 - 11:15	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
11:15 - 11:30	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
11:30 - 11:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
11:45 - 12:00	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
Hourly Total	0	0	0	0	0.0	0	0	0	0	0.0	5	0	0	5	5.0
12:00 - 12:15	0	0	0	0	0.0	1	0	0	1	1.0	9	0	0	9	9.0
12:15 - 12:30	2	0	0	2	2.0	1	0	0	1	1.0	3	0	0	3	3.0
12:30 - 12:45	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
12:45 - 13:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	2	0	0	2	2.0	2	0	0	2	2.0	12	0	0	12	12.0
13:00 - 13:15	4	0	0	4	4.0	0	0	0	0	0.0	2	0	0	2	2.0
13:15 - 13:30	0	0	0	0	0.0	1	0	0	1	1.0	3	0	0	3	3.0
13:30 - 13:45	0	0	0	0	0.0	0	0	0	0	0.0	1	0	0	1	1.0
13:45 - 14:00	1	0	0	1	1.0	0	0	0	0	0.0	3	0	0	3	3.0
Hourly Total	5	0	0	5	5.0	1	0	0	1	1.0	9	0	0	9	9.0
14:00 - 14:15	1	0	0	1	1.0	1	0	0	1	1.0	2	0	0	2	2.0
14:15 - 14:30	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
14:30 - 14:45	0	0	0	0	0.0	1	0	0	1	1.0	3	0	0	3	3.0
14:45 - 15:00	2	0	0	2	2.0	1	0	0	1	1.0	1	0	0	1	1.0
Hourly Total	3	0	0	3	3.0	3	0	0	3	3.0	8	0	0	8	8.0
15:00 - 15:15	0	0	0	0	0.0	1	0	0	1	1.0	4	0	0	4	4.0
15:15 - 15:30	5	0	0	5	5.0	1	0	0	1	1.0	3	0	0	3	3.0
15:30 - 15:45	1	0	0	1	1.0	1	0	0	1	1.0	3	0	0	3	3.0
15:45 - 16:00	0	0	0	0	0.0	0	0	0	0	0.0	0	0	0	0	0.0
Hourly Total	6	0	0	6	6.0	3	0	0	3	3.0	10	0	0	10	10.0
16:00 - 16:15	1	0	0	1	1.0	0	0	0	0	0.0	2	0	0	2	2.0
16:15 - 16:30	2	0	0	2	2.0	0	0	0	0	0.0	2	0	0	2	2.0
16:30 - 16:45	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
16:45 - 17:00	0	0	0	0	0.0	0	0	0	0	0.0	2	0	0	2	2.0
Hourly Total	3	0	0	3	3.0	0	0	0	0	0.0	8	0	0	8	8.0
TOTAL	21	0	0	21	21.0	9	0	0	9	9.0	60	0	0	60	60.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	0
1035	0
1040	0
1045	1
1050	1
1055	0
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	0
1135	0
1140	0
1145	0
1150	0
1155	0
1200	0
1205	2
1210	0
1215	0
1220	0
1225	0
1230	0
1235	0
1240	0
1245	0
1250	0
1255	0
1300	0
1305	0
1310	0
1315	0
1320	0
1325	0

TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	0
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	0
1420	0
1425	0
1430	0
1435	0
1440	0
1445	0
1450	0
1455	0
1500	0
1505	0
1510	0
1515	1
1520	0
1525	1
1530	0
1535	0
1540	0
1545	0
1550	0
1555	0
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	0
1650	0
1655	0
1700	0

Rainhill, Saturday 22nd May 2021

Junction: 2
Approach: A57 Warrington Road Westbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Whiston Hospital					To A57 Warrington Road (Westbound)					To Longview Road				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	9	0	0	9	9.0	131	1	4	136	141.3	1	0	0	1	1.0
10:15 - 10:30	9	0	0	9	9.0	136	1	3	140	144.3	3	0	0	3	3.0
10:30 - 10:45	6	0	0	6	6.0	111	0	4	115	119.0	0	0	0	0	0.0
10:45 - 11:00	8	0	0	8	8.0	124	1	3	128	132.3	0	0	0	0	0.0
Hourly Total	32	0	0	32	32.0	502	3	14	519	536.9	4	0	0	4	4.0
11:00 - 11:15	6	0	0	6	6.0	118	1	3	122	126.3	1	0	0	1	1.0
11:15 - 11:30	9	0	0	9	9.0	120	2	3	125	130.6	0	0	0	0	0.0
11:30 - 11:45	14	0	0	14	14.0	143	2	4	149	155.6	0	0	0	0	0.0
11:45 - 12:00	8	0	0	8	8.0	137	0	2	139	141.0	0	0	0	0	0.0
Hourly Total	37	0	0	37	37.0	518	5	12	535	553.5	1	0	0	1	1.0
12:00 - 12:15	7	0	0	7	7.0	124	1	3	128	132.3	1	0	0	1	1.0
12:15 - 12:30	5	0	0	5	5.0	130	0	3	133	136.0	2	0	0	2	2.0
12:30 - 12:45	8	0	0	8	8.0	156	0	4	160	164.0	0	0	0	0	0.0
12:45 - 13:00	9	0	0	9	9.0	131	0	4	135	139.0	2	0	0	2	2.0
Hourly Total	29	0	0	29	29.0	541	1	14	556	571.3	5	0	0	5	5.0
13:00 - 13:15	13	0	0	13	13.0	137	0	2	139	141.0	0	0	0	0	0.0
13:15 - 13:30	6	0	0	6	6.0	165	1	2	168	171.3	0	0	0	0	0.0
13:30 - 13:45	14	0	0	14	14.0	154	0	3	157	160.0	0	0	0	0	0.0
13:45 - 14:00	11	0	0	11	11.0	144	0	4	148	152.0	0	0	0	0	0.0
Hourly Total	44	0	0	44	44.0	600	1	11	612	624.3	0	0	0	0	0.0
14:00 - 14:15	12	0	0	12	12.0	152	0	4	156	160.0	0	0	0	0	0.0
14:15 - 14:30	7	0	0	7	7.0	155	0	3	158	161.0	0	0	0	0	0.0
14:30 - 14:45	16	0	0	16	16.0	121	0	2	123	125.0	2	0	0	2	2.0
14:45 - 15:00	6	0	0	6	6.0	124	0	3	127	130.0	2	0	0	2	2.0
Hourly Total	41	0	0	41	41.0	552	0	12	564	576.0	4	0	0	4	4.0
15:00 - 15:15	3	0	0	3	3.0	126	0	1	127	128.0	1	0	0	1	1.0
15:15 - 15:30	6	0	0	6	6.0	138	0	3	141	144.0	1	0	0	1	1.0
15:30 - 15:45	8	0	0	8	8.0	116	0	3	119	122.0	2	0	0	2	2.0
15:45 - 16:00	12	0	0	12	12.0	150	0	3	153	156.0	2	0	0	2	2.0
Hourly Total	29	0	0	29	29.0	530	0	10	540	550.0	6	0	0	6	6.0
16:00 - 16:15	6	0	0	6	6.0	134	1	2	137	140.3	0	0	0	0	0.0
16:15 - 16:30	4	0	0	4	4.0	141	0	1	142	143.0	0	0	0	0	0.0
16:30 - 16:45	4	0	0	4	4.0	104	1	2	107	110.3	1	0	0	1	1.0
16:45 - 17:00	1	0	0	1	1.0	122	0	2	124	126.0	3	0	0	3	3.0
Hourly Total	15	0	0	15	15.0	501	2	7	510	519.6	4	0	0	4	4.0
TOTAL	227	0	0	227	227.0	3744	12	80	3836	3931.6	24	0	0	24	24.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	2
1015	0
1020	0
1025	0
1030	0
1035	0
1040	6
1045	0
1050	0
1055	0
1100	2
1105	2
1110	0
1115	0
1120	0
1125	4
1130	0
1135	1
1140	1
1145	0
1150	0
1155	0
1200	5
1205	0
1210	0
1215	0
1220	2
1225	0
1230	0
1235	0
1240	0
1245	8
1250	4
1255	0
1300	0
1305	0
1310	3
1315	0
1320	0
1325	0

TIME	Queue Lengths (Vehicles)
1330	2
1335	0
1340	0
1345	0
1350	4
1355	0
1400	6
1405	0
1410	2
1415	0
1420	0
1425	0
1430	0
1435	0
1440	4
1445	0
1450	0
1455	3
1500	0
1505	0
1510	7
1515	0
1520	0
1525	0
1530	0
1535	0
1540	5
1545	1
1550	0
1555	2
1600	0
1605	1
1610	0
1615	1
1620	0
1625	0
1630	2
1635	2
1640	0
1645	3
1650	0
1655	0
1700	0

Rainhill, Saturday 22nd May 2021

Junction: 2
Approach: Whiston Hospital



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To A57 Warrington Road (Westbound)					To Longview Road					To A57 Warrington Road (Eastbound)				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	9	0	0	9	9.0	1	0	0	1	1.0	8	0	0	8	8.0
10:15 - 10:30	9	0	0	9	9.0	0	0	0	0	0.0	8	0	0	8	8.0
10:30 - 10:45	5	0	0	5	5.0	0	0	0	0	0.0	5	0	0	5	5.0
10:45 - 11:00	9	0	0	9	9.0	0	0	0	0	0.0	7	0	0	7	7.0
Hourly Total	32	0	0	32	32.0	1	0	0	1	1.0	28	0	0	28	28.0
11:00 - 11:15	6	0	0	6	6.0	0	0	0	0	0.0	5	0	0	5	5.0
11:15 - 11:30	9	0	0	9	9.0	1	0	0	1	1.0	8	0	0	8	8.0
11:30 - 11:45	10	0	0	10	10.0	0	0	0	0	0.0	12	0	0	12	12.0
11:45 - 12:00	17	0	0	17	17.0	0	0	0	0	0.0	7	0	0	7	7.0
Hourly Total	42	0	0	42	42.0	1	0	0	1	1.0	32	0	0	32	32.0
12:00 - 12:15	17	0	0	17	17.0	0	0	0	0	0.0	6	0	0	6	6.0
12:15 - 12:30	16	0	0	16	16.0	1	0	0	1	1.0	4	0	0	4	4.0
12:30 - 12:45	8	0	0	8	8.0	0	0	0	0	0.0	7	0	0	7	7.0
12:45 - 13:00	14	0	0	14	14.0	0	0	0	0	0.0	9	0	0	9	9.0
Hourly Total	55	0	0	55	55.0	1	0	0	1	1.0	26	0	0	26	26.0
13:00 - 13:15	16	0	0	16	16.0	0	0	0	0	0.0	13	0	0	13	13.0
13:15 - 13:30	15	0	0	15	15.0	0	0	0	0	0.0	5	0	0	5	5.0
13:30 - 13:45	20	0	0	20	20.0	0	0	0	0	0.0	13	0	0	13	13.0
13:45 - 14:00	12	0	0	12	12.0	0	0	0	0	0.0	10	0	0	10	10.0
Hourly Total	63	0	0	63	63.0	0	0	0	0	0.0	41	0	0	41	41.0
14:00 - 14:15	13	0	0	13	13.0	0	0	0	0	0.0	9	0	0	9	9.0
14:15 - 14:30	19	0	0	19	19.0	1	0	0	1	1.0	12	0	0	12	12.0
14:30 - 14:45	19	0	0	19	19.0	1	0	0	1	1.0	20	0	0	20	20.0
14:45 - 15:00	17	0	0	17	17.0	0	0	0	0	0.0	8	0	0	8	8.0
Hourly Total	68	0	0	68	68.0	2	0	0	2	2.0	49	0	0	49	49.0
15:00 - 15:15	16	0	0	16	16.0	0	0	0	0	0.0	11	0	0	11	11.0
15:15 - 15:30	11	0	0	11	11.0	0	0	0	0	0.0	6	0	0	6	6.0
15:30 - 15:45	8	0	0	8	8.0	0	0	0	0	0.0	14	0	0	14	14.0
15:45 - 16:00	15	0	0	15	15.0	0	0	0	0	0.0	10	0	0	10	10.0
Hourly Total	50	0	0	50	50.0	0	0	0	0	0.0	41	0	0	41	41.0
16:00 - 16:15	16	0	0	16	16.0	0	0	0	0	0.0	13	0	0	13	13.0
16:15 - 16:30	6	0	0	6	6.0	0	0	0	0	0.0	5	0	0	5	5.0
16:30 - 16:45	7	0	0	7	7.0	0	0	0	0	0.0	8	0	0	8	8.0
16:45 - 17:00	7	0	0	7	7.0	0	0	0	0	0.0	5	0	0	5	5.0
Hourly Total	36	0	0	36	36.0	0	0	0	0	0.0	31	0	0	31	31.0
TOTAL	346	0	0	346	346.0	5	0	0	5	5.0	248	0	0	248	248.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	2
1025	0
1030	2
1035	0
1040	2
1045	0
1050	1
1055	2
1100	0
1105	0
1110	0
1115	0
1120	0
1125	0
1130	2
1135	0
1140	2
1145	2
1150	2
1155	3
1200	3
1205	4
1210	5
1215	3
1220	4
1225	2
1230	0
1235	2
1240	0
1245	2
1250	0
1255	3
1300	0
1305	2
1310	1
1315	1
1320	0
1325	0

TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	0
1345	1
1350	0
1355	0
1400	1
1405	0
1410	2
1415	2
1420	0
1425	2
1430	0
1435	2
1440	2
1445	0
1450	0
1455	2
1500	0
1505	2
1510	0
1515	2
1520	2
1525	0
1530	0
1535	0
1540	2
1545	0
1550	2
1555	1
1600	0
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	1
1640	0
1645	0
1650	0
1655	0
1700	0

Rainhill, Saturday 22nd May 2021

Junction: 2
Approach: A57 Warrington Road Eastbound



Queues Measured as Stationary Vehicles (Snap Queue every 5 Minutes)

TIME	To Longview Road					To A57 Warrington Road (Eastbound)					To Whiston Hospital				
	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs	LIGHT	HEAVY	BUS	TOTAL	PCUs
10:00 - 10:15	0	0	0	0	0.0	85	0	1	86	87.0	6	0	0	6	6.0
10:15 - 10:30	2	0	0	2	2.0	105	0	2	107	109.0	7	0	0	7	7.0
10:30 - 10:45	2	0	0	2	2.0	133	1	2	136	139.3	6	0	0	6	6.0
10:45 - 11:00	1	0	0	1	1.0	111	0	3	114	117.0	15	0	0	15	15.0
Hourly Total	5	0	0	5	5.0	434	1	8	443	452.3	34	0	0	34	34.0
11:00 - 11:15	1	0	0	1	1.0	125	2	3	130	135.6	9	0	0	9	9.0
11:15 - 11:30	0	0	0	0	0.0	123	1	1	125	127.3	16	0	0	16	16.0
11:30 - 11:45	2	0	0	2	2.0	109	2	4	115	121.6	9	0	0	9	9.0
11:45 - 12:00	2	0	0	2	2.0	102	2	3	107	112.6	18	0	0	18	18.0
Hourly Total	5	0	0	5	5.0	459	7	11	477	497.1	52	0	0	52	52.0
12:00 - 12:15	1	0	0	1	1.0	135	0	3	138	141.0	8	0	0	8	8.0
12:15 - 12:30	2	0	0	2	2.0	155	1	3	159	163.3	16	0	0	16	16.0
12:30 - 12:45	2	0	0	2	2.0	142	0	1	143	144.0	12	0	0	12	12.0
12:45 - 13:00	0	0	0	0	0.0	131	0	5	136	141.0	15	0	0	15	15.0
Hourly Total	5	0	0	5	5.0	563	1	12	576	589.3	51	0	0	51	51.0
13:00 - 13:15	0	0	0	0	0.0	124	0	2	126	128.0	20	0	0	20	20.0
13:15 - 13:30	3	0	0	3	3.0	133	1	3	137	141.3	18	0	0	18	18.0
13:30 - 13:45	2	0	0	2	2.0	123	0	3	126	129.0	15	0	0	15	15.0
13:45 - 14:00	2	0	0	2	2.0	133	0	4	137	141.0	18	0	0	18	18.0
Hourly Total	7	0	0	7	7.0	513	1	12	526	539.3	71	0	0	71	71.0
14:00 - 14:15	2	0	0	2	2.0	111	0	2	113	115.0	13	0	0	13	13.0
14:15 - 14:30	4	0	0	4	4.0	129	0	2	131	133.0	11	0	0	11	11.0
14:30 - 14:45	1	0	0	1	1.0	104	0	3	107	110.0	14	0	0	14	14.0
14:45 - 15:00	0	0	0	0	0.0	125	1	2	128	131.3	15	0	0	15	15.0
Hourly Total	7	0	0	7	7.0	469	1	9	479	489.3	53	0	0	53	53.0
15:00 - 15:15	3	0	0	3	3.0	137	0	2	139	141.0	14	0	0	14	14.0
15:15 - 15:30	3	0	0	3	3.0	111	0	4	115	119.0	10	0	0	10	10.0
15:30 - 15:45	0	0	0	0	0.0	139	1	2	142	145.3	2	0	0	2	2.0
15:45 - 16:00	1	0	0	1	1.0	134	0	3	137	140.0	16	0	0	16	16.0
Hourly Total	7	0	0	7	7.0	521	1	11	533	545.3	42	0	0	42	42.0
16:00 - 16:15	1	0	0	1	1.0	151	0	3	154	157.0	7	0	0	7	7.0
16:15 - 16:30	1	0	0	1	1.0	113	0	3	116	119.0	7	0	0	7	7.0
16:30 - 16:45	1	0	0	1	1.0	111	0	3	114	117.0	5	0	0	5	5.0
16:45 - 17:00	5	0	0	5	5.0	112	0	5	117	122.0	7	0	0	7	7.0
Hourly Total	8	0	0	8	8.0	487	0	14	501	515.0	26	0	0	26	26.0
TOTAL	44	0	0	44	44.0	3446	12	77	3535	3627.6	329	0	0	329	329.0

PCU Factors:	
LIGHT	1.0
HEAVY	2.3
BUS	2.0

TIME	Queue Lengths (Vehicles)
1000	0
1005	0
1010	0
1015	0
1020	0
1025	0
1030	3
1035	0
1040	0
1045	0
1050	0
1055	0
1100	0
1105	5
1110	0
1115	0
1120	0
1125	2
1130	0
1135	0
1140	0
1145	0
1150	0
1155	1
1200	0
1205	0
1210	0
1215	0
1220	10
1225	0
1230	1
1235	0
1240	2
1245	0
1250	2
1255	0
1300	0
1305	0
1310	3
1315	0
1320	5
1325	0

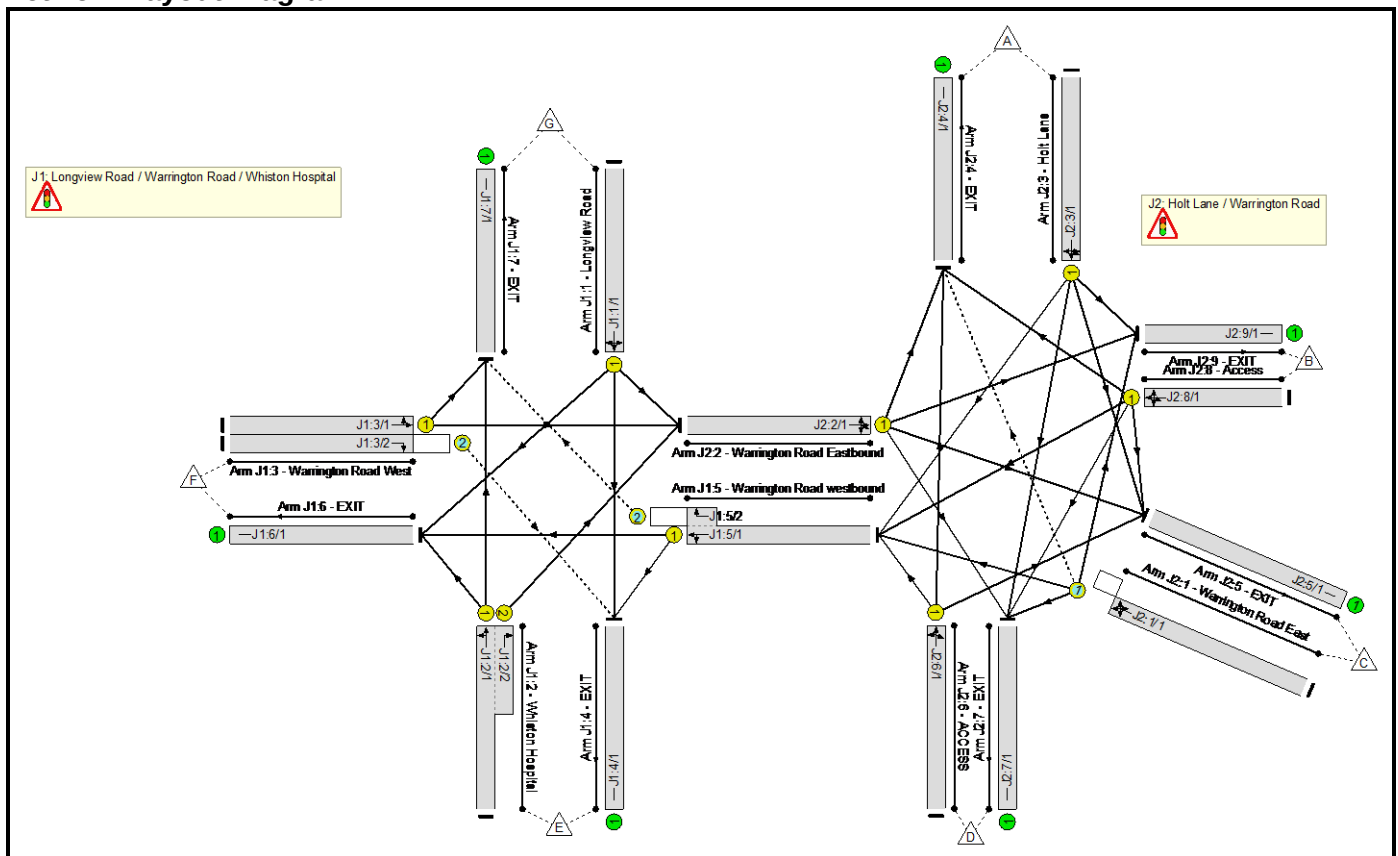
TIME	Queue Lengths (Vehicles)
1330	0
1335	0
1340	2
1345	0
1350	0
1355	0
1400	0
1405	0
1410	0
1415	2
1420	0
1425	0
1430	0
1435	2
1440	0
1445	3
1450	2
1455	0
1500	0
1505	0
1510	0
1515	0
1520	0
1525	2
1530	0
1535	0
1540	0
1545	6
1550	0
1555	0
1600	4
1605	0
1610	0
1615	0
1620	0
1625	0
1630	0
1635	0
1640	0
1645	2
1650	0
1655	0
1700	0

APPENDIX P

User and Project Details

Project:	The Holt, Rainhill
Title:	
Location:	Holt Lane, Rainhill
Client:	Punch Partnerships (PML) Ltd
Site Ref(s):	1911-011
Design Layout Ref:	Existing Arrangement
Model Purpose:	For Information
Additional detail:	
File name:	Warrington Road - Holt Lane.lsg3x
Author:	Stephen Kemp
Company:	Transport Planning Associates
Address:	90 High Holborn, London

Network Layout Diagram



Network Results

Scenario 1: '2021 Baseline - Weekday AM Peak' (FG1: '2021 Baseline Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	85.4%	19.5	-	-
J2: Holt Lane / Warrington Road	-	54.8%	6.0	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
3/1	Holt Lane Left Right Ahead Left2	48.0%	1.7	56.9	3.4
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	54.7%	1.6	9.4	14.2
1/1	Warrington Road East Right Ahead Left U-Turn	54.8%	2.7	13.2	14.7
J1: Longview Road / Warrington Road / Whiston Hospital	-	85.4%	13.5	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	15.2%	0.3	62.3	0.6
3/2	Warrington Road West Right	34.3%	1.5	43.7	2.0
3/1	Warrington Road West Ahead Left	49.7%	2.5	15.9	11.5
2/1+2/2	Whiston Hospital Right Left Ahead	62.6 : 62.6%	2.7	66.4	3.5
5/1+5/2	Warrington Road westbound Left Ahead Right	85.4 : 85.4%	6.5	31.2	20.7
C1 Stream: 1 PRC for Signalled Lanes (%)		5.3	Total Delay for Signalled Lanes (pcuHr):		13.49
C1 Stream: 2 PRC for Signalled Lanes (%)		64.2	Total Delay for Signalled Lanes (pcuHr):		5.97
PRC Over All Lanes (%)		5.3	Total Delay Over All Lanes (pcuHr):		19.46

Scenario 2: '2021 Baseline - Weekday PM Peak' (FG2: '2021 Baseline Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	89.3%	27.0	-	-
J2: Holt Lane / Warrington Road	-	76.2%	9.2	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
3/1	Holt Lane Left Right Ahead Left2	28.9%	1.1	41.2	2.8
1/1	Warrington Road East Right Ahead Left U-Turn	67.3%	4.3	20.5	17.0
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	76.2%	3.7	18.0	19.7
J1: Longview Road / Warrington Road / Whiston Hospital	-	89.3%	17.8	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	23.4%	0.5	62.3	1.1
3/2	Warrington Road West Right	32.8%	1.4	46.9	1.8
3/1	Warrington Road West Ahead Left	60.9%	3.5	18.5	15.3
2/1+2/2	Whiston Hospital Right Left Ahead	86.6 : 86.6%	5.2	96.4	6.7
5/1+5/2	Warrington Road westbound Left Ahead Right	89.3 : 89.3%	7.2	34.3	12.2
C1 Stream: 1 PRC for Signalled Lanes (%):		0.8	Total Delay for Signalled Lanes (pcuHr):		17.81
C1 Stream: 2 PRC for Signalled Lanes (%):		18.1	Total Delay for Signalled Lanes (pcuHr):		9.16
PRC Over All Lanes (%):		0.8	Total Delay Over All Lanes(pcuHr):		26.97

Scenario 3: '2021 Baseline - Weekend Peak' (FG3: '2021 Baseline Saturday Peak', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	87.4%	17.0	-	-
J2: Holt Lane / Warrington Road	-	58.9%	5.3	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
3/1	Holt Lane Left Right Ahead Left2	25.7%	0.9	41.4	1.9
1/1	Warrington Road East Right Ahead Left U-Turn	54.0%	2.6	14.6	11.2
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	58.9%	1.7	10.8	4.7
J1: Longview Road / Warrington Road / Whiston Hospital	-	87.4%	11.7	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	11.0%	0.2	55.2	0.4
3/2	Warrington Road West Right	20.3%	0.8	38.5	1.2
2/1+2/2	Whiston Hospital Right Left Ahead	39.3 : 39.3%	1.5	51.5	2.0
3/1	Warrington Road West Ahead Left	51.8%	2.7	17.5	11.0
5/1+5/2	Warrington Road westbound Left Ahead Right	87.4 : 0.0%	6.6	35.1	12.0
C1 Stream: 1 PRC for Signalled Lanes (%):		3.0	Total Delay for Signalled Lanes (pcuHr):		11.69
C1 Stream: 2 PRC for Signalled Lanes (%):		52.8	Total Delay for Signalled Lanes (pcuHr):		5.26
PRC Over All Lanes (%):		3.0	Total Delay Over All Lanes(pcuHr):		16.96

Scenario 4: '2021 with dev - Weekday AM Peak' (FG7: '2021 with dev. Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	87.2%	22.6	-	-
J2: Holt Lane / Warrington Road	-	68.9%	9.3	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
3/1	Holt Lane Left Right Ahead Left2	34.5%	1.5	39.1	3.5
1/1	Warrington Road East Right Ahead Left U-Turn	67.5%	4.6	22.3	17.5
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	68.9%	3.2	18.3	16.2
J1: Longview Road / Warrington Road / Whiston Hospital	-	87.2%	13.3	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	15.2%	0.3	62.4	0.6
3/2	Warrington Road West Right	36.5%	1.6	47.0	2.1
3/1	Warrington Road West Ahead Left	50.9%	2.6	16.1	11.9
2/1+2/2	Whiston Hospital Right Left Ahead	62.6 : 62.6%	2.7	66.5	3.5
5/1+5/2	Warrington Road westbound Left Ahead Right	87.2 : 87.2%	6.2	28.9	11.4
C1 Stream: 1 PRC for Signalled Lanes (%):		3.2	Total Delay for Signalled Lanes (pcuHr):		13.34
C1 Stream: 2 PRC for Signalled Lanes (%):		30.6	Total Delay for Signalled Lanes (pcuHr):		9.30
PRC Over All Lanes (%):		3.2	Total Delay Over All Lanes(pcuHr):		22.64

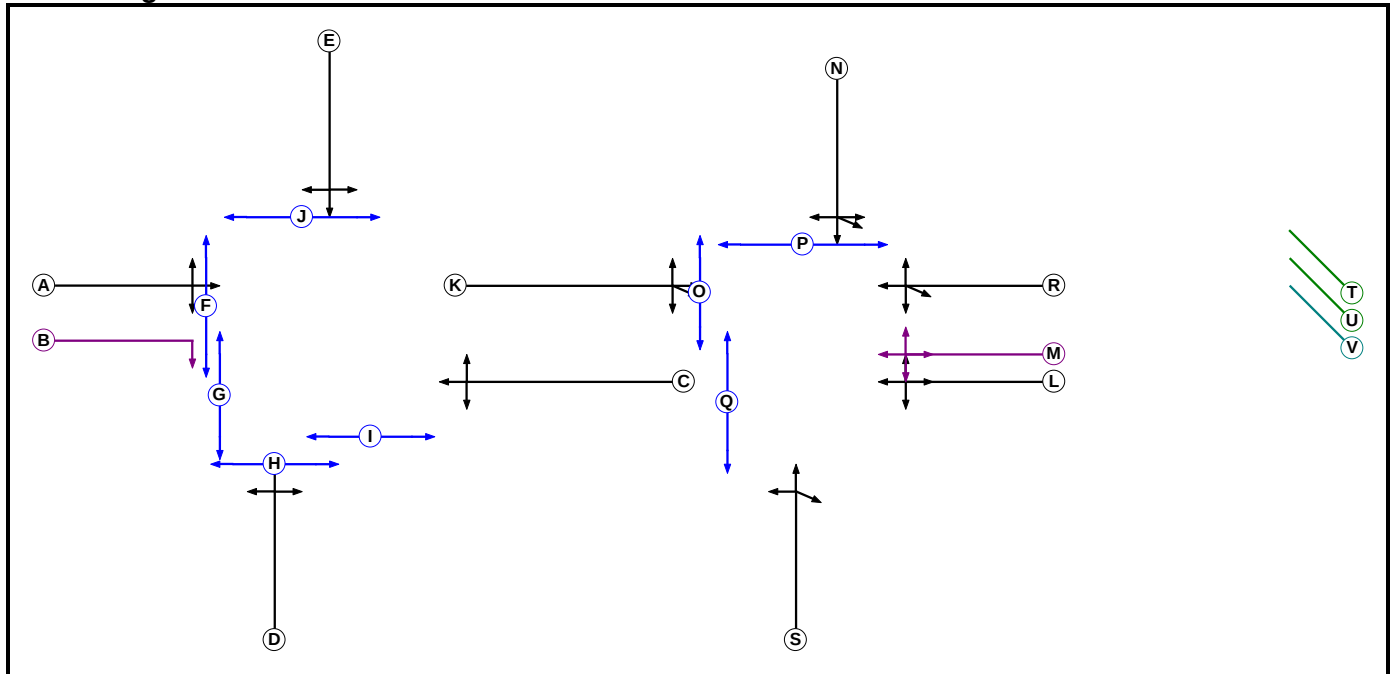
Scenario 5: '2021 with dev - Weekday PM Peak' (FG8: '2021 with dev. Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	90.0%	26.5	-	-
J2: Holt Lane / Warrington Road	-	69.7%	7.8	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Warrington Road East Right Ahead Left U-Turn	60.5%	3.0	14.1	14.3
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	65.1%	2.0	9.3	6.9
3/1	Holt Lane Left Right Ahead Left2	69.7%	2.8	72.7	5.2
J1: Longview Road / Warrington Road / Whiston Hospital	-	90.0%	18.6	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	24.3%	0.6	65.0	1.1
3/2	Warrington Road West Right	29.3%	1.3	43.8	1.7
3/1	Warrington Road West Ahead Left	60.7%	3.5	18.0	15.8
5/1+5/2	Warrington Road westbound Left Ahead Right	87.6 : 87.6%	7.4	34.0	26.0
2/1+2/2	Whiston Hospital Right Left Ahead	90.0 : 90.0%	6.0	110.8	7.4
C1 Stream: 1 PRC for Signalled Lanes (%):		0.0	Total Delay for Signalled Lanes (pcuHr):		18.64
C1 Stream: 2 PRC for Signalled Lanes (%):		29.1	Total Delay for Signalled Lanes (pcuHr):		7.84
PRC Over All Lanes (%):		0.0	Total Delay Over All Lanes(pcuHr):		26.49

Scenario 6: '2021 with dev - Weekend Peak' (FG9: '2021 with dev. Weekend Peak', Plan 3: 'No Private Drive-ways - double cycle')

Item	Lane Description	Deg Sat (%)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Mean Max Queue (pcu)
Network	-	87.3%	18.2	-	-
J2: Holt Lane / Warrington Road	-	60.0%	6.1	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
5/1	EXIT	0.0%	0.0	0.0	0.0
6/1	ACCESS Ahead Right Left	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
8/1	Access Right U-Turn Ahead Left	0.0%	0.0	0.0	0.0
9/1	EXIT	0.0%	0.0	0.0	0.0
3/1	Holt Lane Left Right Ahead Left2	39.8%	1.5	44.9	3.2
1/1	Warrington Road East Right Ahead Left U-Turn	55.9%	2.9	15.5	12.7
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	60.0%	1.8	10.7	10.6
J1: Longview Road / Warrington Road / Whiston Hospital	-	87.3%	12.0	-	-
4/1	EXIT	0.0%	0.0	0.0	0.0
6/1	EXIT	0.0%	0.0	0.0	0.0
7/1	EXIT	0.0%	0.0	0.0	0.0
1/1	Longview Road Left Ahead Right	11.2%	0.2	56.5	0.5
3/2	Warrington Road West Right	21.4%	0.8	40.4	1.2
2/1+2/2	Whiston Hospital Right Left Ahead	40.2 : 40.2%	1.5	52.9	2.0
3/1	Warrington Road West Ahead Left	52.5%	2.7	17.4	11.5
5/1+5/2	Warrington Road westbound Left Ahead Right	87.3 : 0.0%	6.8	35.0	12.0
C1 Stream: 1 PRC for Signalled Lanes (%):		3.1	Total Delay for Signalled Lanes (pcuHr):		12.03
C1 Stream: 2 PRC for Signalled Lanes (%):		49.9	Total Delay for Signalled Lanes (pcuHr):		6.13
PRC Over All Lanes (%):		3.1	Total Delay Over All Lanes(pcuHr):		18.17

Phase Diagram



Phase Input Data

Phase Name	Phase Type	Stage Stream	Assoc. Phase	Street Min	Cont Min
A	Traffic	1		7	7
B	Ind. Arrow	1	A	4	4
C	Traffic	1		7	7
D	Traffic	1		7	7
E	Traffic	1		7	7
F	Pedestrian	1		6	6
G	Pedestrian	1		6	6
H	Pedestrian	1		6	6
I	Pedestrian	1		6	6
J	Pedestrian	1		6	6
K	Traffic	2		7	7
L	Traffic	2		7	7
M	Ind. Arrow	2	L	4	4
N	Traffic	2		7	7
O	Pedestrian	2		6	6
P	Pedestrian	2		6	6
Q	Pedestrian	2		7	7
R	Traffic	2		7	7
S	Traffic	2		7	7
T	Dummy R/A	1		3	3
U	Dummy R/A	2		3	3
V	Dummy	2		6	6

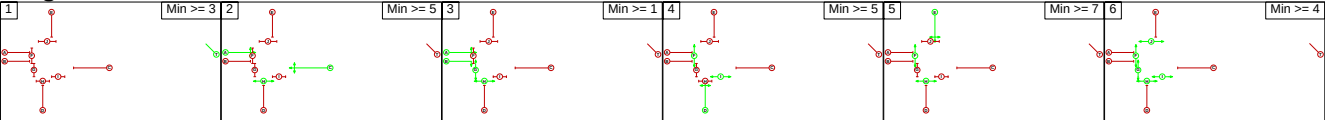
Phase Intergreens Matrix

	Starting Phase																					
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Terminating Phase	A	-	-	5	5	5	-	-	9	7	-	-	-	-	-	-	-	-	-	3	-	-
	B	-	-	6	5	6	5	-	-	9	7	-	-	-	-	-	-	-	-	3	-	-
	C	-	5	-	5	5	-	8	-	7	8	-	-	-	-	-	-	-	-	3	-	-
	D	6	6	5	-	6	-	7	5	-	8	-	-	-	-	-	-	-	-	3	-	-
	E	5	5	5	6	-	8	-	7	5	-	-	-	-	-	-	-	-	-	3	-	-
	F	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	G	-	-	7	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	H	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	I	7	7	7	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	J	7	7	7	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-
	K	-	-	-	-	-	-	-	-	-	-	-	5	6	8	8	8	8	6	-	3	8
	L	-	-	-	-	-	-	-	-	-	-	-	6	8	8	8	8	9	8	-	3	8
	M	-	-	-	-	-	-	-	-	-	5	-	6	8	8	8	8	9	8	-	3	8
	N	-	-	-	-	-	-	-	-	-	6	6	6	-	8	8	8	6	7	-	3	8
	O	-	-	-	-	-	-	-	-	-	9	9	9	9	-	-	-	9	9	-	3	-
	P	-	-	-	-	-	-	-	-	-	9	9	9	9	-	-	-	9	9	-	3	-
	Q	-	-	-	-	-	-	-	-	-	9	9	9	9	-	-	-	9	9	-	3	-
	R	-	-	-	-	-	-	-	-	-	8	8	8	6	8	8	8	-	7	-	3	8
	S	-	-	-	-	-	-	-	-	-	6	6	6	6	8	8	8	7	-	-	3	8
	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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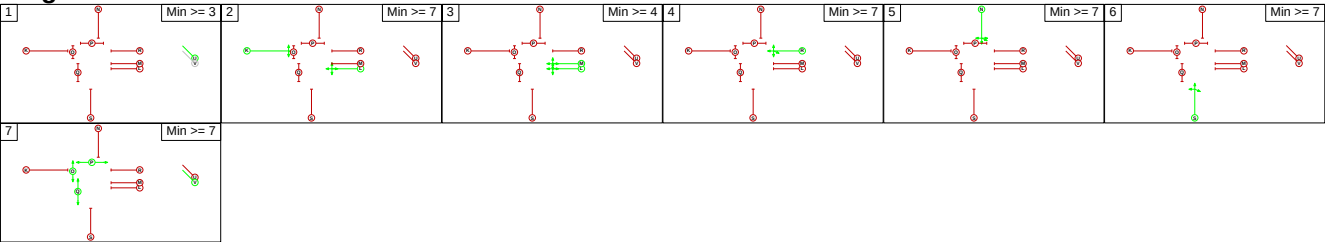
Phases in Stage

Stream	Stage No.	Phases in Stage
1	1	T
1	2	A C H
1	3	A B G H
1	4	D F I
1	5	E F H
1	6	F G H I J
2	1	U
2	2	K L
2	3	L M
2	4	R
2	5	N
2	6	S
2	7	O P Q V

Stage Diagram
Stage Stream: 1



Stage Stream: 2



Phase Delays
Stage Stream: 1

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

Stage Stream: 2

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

Prohibited Stage Change
Stage Stream: 1

	To Stage						
From Stage		1	2	3	4	5	6
	1		2	8	2	2	0
	2	3		8	9	5	9
	3	3	7		9	7	9
	4	3	7	7		7	8
	5	3	7	8	7		8
	6	3	7	7	7	7	

Stage Stream: 2

	To Stage							
From Stage		1	2	3	4	5	6	7
	1							
	2							
	3							
	4							
	5							
	6							
	7							

Give-Way Lane Input Data

Junction: J1: Longview Road / Warrington Road / Whiston Hospital											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J1:3/2 (Warrington Road West)	J1:4/1 (Right)	1439	0	J1:5/1	1.09	All	3.00	-	0.50	3	3.00
J1:5/2 (Warrington Road westbound)	J1:7/1 (Right)	1439	0	J1:3/1	1.09	All	3.00	-	0.50	3	3.00

Junction: J2: Holt Lane / Warrington Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
J2:1/1 (Warrington Road East)	J2:4/1 (Right)	1439	0	J2:2/1	1.09	All	2.00	2.00	0.50	2	2.00

Lane Input Data

Junction: J1: Longview Road / Warrington Road / Whiston Hospital												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J1:1/1 (Longview Road)	U	E	2	3	60.0	Geom	-	3.10	0.00	Y	Arm J2:2 Left	4.00
											Arm J1:4 Ahead	Inf
											Arm J1:6 Right	14.00
J1:2/1 (Whiston Hospital)	U	D	2	3	60.0	Geom	-	3.30	0.00	Y	Arm J1:6 Left	10.00
J1:2/2 (Whiston Hospital)	U	D	2	3	7.2	Geom	-	3.30	0.00	Y	Arm J1:7 Ahead	Inf
J1:3/1 (Warrington Road West)	U	A	2	3	60.0	Geom	-	3.20	0.00	Y	Arm J2:2 Right	15.00
J1:3/2 (Warrington Road West)	O	A B	2	3	60.0	Geom	-	3.20	0.00	Y	Arm J1:7 Left	Inf
J1:4/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	Arm J1:4 Right	4.00
J1:5/1 (Warrington Road westbound)	U	C	2	3	9.8	Geom	-	3.30	0.00	Y	Arm J1:4 Left	12.00
J1:5/2 (Warrington Road westbound)	O	C	2	3	2.4	Geom	-	3.30	0.00	Y	Arm J1:6 Ahead	Inf
J1:6/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	Arm J1:7 Right	12.00
J1:7/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

Junction: J2: Holt Lane / Warrington Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
J2:1/1 (Warrington Road East)	O	L M	2	3	60.0	Geom	-	4.00	0.00	Y	Arm J2:4 Right	4.00
											Arm J1:5 Ahead	Inf
											Arm J2:7 Left	4.00
											Arm J2:9 U-Turn	Inf
J2:2/1 (Warrington Road Eastbound)	U	K	2	3	10.4	Geom	-	3.30	0.00	Y	Arm J2:4 Left	Inf
											Arm J2:5 Ahead	Inf
											Arm J2:7 Right	Inf
											Arm J2:9 Ahead	Inf
J2:3/1 (Holt Lane)	U	N	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J2:5 Left	4.00
											Arm J1:5 Right	14.00
											Arm J2:7 Ahead	Inf
											Arm J2:9 Left	Inf
J2:4/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:5/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-
J2:6/1 (ACCESS)	U	S	2	3	60.0	Geom	-	2.75	0.00	Y	Arm J2:4 Ahead	Inf
											Arm J2:5 Right	4.00
											Arm J1:5 Left	4.00
J2:7/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

J2:8/1 (Access)	U	R	2	3	60.0	Geom	-	2.30	0.00	Y	Arm J2:4 Right	4.00
											Arm J2:5 U-Turn	4.00
											Arm J1:5 Ahead	4.00
											Arm J2:7 Left	4.00
J2:9/1 (EXIT)	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2021 Baseline Weekday AM'	07:45	08:45	01:00	
2: '2021 Baseline Weekday PM'	15:15	16:15	01:00	
3: '2021 Baseline Saturday Peak'	13:00	14:00	01:00	
7: '2021 with dev. Weekday AM'	07:45	08:45	01:00	F1+F4
8: '2021 with dev. Weekday PM'	15:15	16:15	01:00	F2+F5
9: '2021 with dev. Weekend Peak'	13:00	14:00	01:00	F3+F6

Scenario 1: '2021 Baseline - Weekday AM Peak' (FG1: '2021 Baseline Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	48	0	0	59	0	107
	B	0	0	0	0	0	0	0	0
	C	30	0	0	0	55	638	2	725
	D	0	0	0	0	0	0	0	0
	E	0	0	54	0	0	89	2	145
	F	24	0	535	0	120	0	6	685
	G	0	0	5	0	1	13	0	19
	Tot.	54	0	642	0	176	799	10	1681

Traffic Lane Flows

Lane	Scenario 1: 2021 Baseline - Weekday AM Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	19
J1:2/1 (with short)	145(In) 91(Out)
J1:2/2 (short)	54
J1:3/1	565
J1:3/2	120
J1:4/1	176
J1:5/1 (with short)	754(In) 752(Out)
J1:5/2 (short)	2
J1:6/1	799
J1:7/1	10
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	725
J2:2/1	618
J2:3/1	107
J2:4/1	54
J2:5/1	642
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

Lane Saturation Flows

Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	26.3 %	1643	1643
				Arm J1:4 Ahead	Inf	5.3 %		
				Arm J1:6 Right	14.00	68.4 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	97.8 %	1696	1696
				Arm J1:7 Ahead	Inf	2.2 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	98.9 %	1927	1927
				Arm J1:7 Left	4.00	1.1 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	7.3 %	1927	1927
				Arm J1:6 Ahead	Inf	92.7 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	100.0 %	1729	1729
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	4.1 %	1984	1984
				Arm J1:5 Ahead	Inf	95.9 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	3.9 %	1945	1945
				Arm J2:5 Ahead	Inf	96.1 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	44.9 %	1560	1560
				Arm J1:5 Right	14.00	55.1 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2021 Baseline - Weekday PM Peak' (FG2: '2021 Baseline Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	32	0	0	68	0	100
	B	0	0	0	0	0	0	0	0
	C	64	0	0	0	50	638	5	757
	D	0	0	0	0	0	0	0	0
	E	0	0	64	0	0	124	6	194
	F	63	0	607	0	104	0	8	782
	G	0	0	7	0	8	16	0	31
	Tot.	127	0	710	0	162	846	19	1864

Traffic Lane Flows

Lane	Scenario 2: 2021 Baseline - Weekday PM Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	31
J1:2/1 (with short)	194(In) 130(Out)
J1:2/2 (short)	64
J1:3/1	678
J1:3/2	104
J1:4/1	162
J1:5/1 (with short)	761(In) 756(Out)
J1:5/2 (short)	5
J1:6/1	846
J1:7/1	19
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	757
J2:2/1	741
J2:3/1	100
J2:4/1	127
J2:5/1	710
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

Lane Saturation Flows

Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	22.6 %	1689	1689
				Arm J1:4 Ahead	Inf	25.8 %		
				Arm J1:6 Right	14.00	51.6 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	95.4 %	1702	1702
				Arm J1:7 Ahead	Inf	4.6 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	98.8 %	1926	1926
				Arm J1:7 Left	4.00	1.2 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	6.6 %	1929	1929
				Arm J1:6 Ahead	Inf	93.4 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	100.0 %	1729	1729
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	8.5 %	1953	1953
				Arm J1:5 Ahead	Inf	91.5 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	8.5 %	1945	1945
				Arm J2:5 Ahead	Inf	91.5 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	32.0 %	1605	1605
				Arm J1:5 Right	14.00	68.0 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 3: '2021 Baseline - Weekend Peak' (FG3: '2021 Baseline Saturday Peak', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	24	0	0	52	0	76
	B	0	0	0	0	0	0	0	0
	C	27	0	0	0	44	578	0	649
	D	0	0	0	0	0	0	0	0
	E	0	0	41	0	0	63	0	104
	F	43	0	496	0	71	0	7	617
	G	0	0	5	0	1	9	0	15
	Tot.	70	0	566	0	116	702	7	1461

Traffic Lane Flows

Lane	Scenario 3: 2021 Baseline - Weekend Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	15
J1:2/1 (with short)	104(In) 63(Out)
J1:2/2 (short)	41
J1:3/1	546
J1:3/2	71
J1:4/1	116
J1:5/1 (with short)	674(In) 674(Out)
J1:5/2 (short)	0
J1:6/1	702
J1:7/1	7
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	649
J2:2/1	585
J2:3/1	76
J2:4/1	70
J2:5/1	566
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

Lane Saturation Flows

Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	33.3 %	1619	1619
				Arm J1:4 Ahead	Inf	6.7 %		
				Arm J1:6 Right	14.00	60.0 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1691	1691
				Arm J1:7 Ahead	Inf	0.0 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	98.7 %	1926	1926
				Arm J1:7 Left	4.00	1.3 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	6.5 %	1929	1929
				Arm J1:6 Ahead	Inf	93.5 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	0.0 %	1945	1945
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	4.2 %	1984	1984
				Arm J1:5 Ahead	Inf	95.8 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	7.4 %	1945	1945
				Arm J2:5 Ahead	Inf	92.6 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	31.6 %	1607	1607
				Arm J1:5 Right	14.00	68.4 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2021 with dev - Weekday AM Peak' (FG7: '2021 with dev. Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	61	0	0	75	0	136
	B	0	0	0	0	0	0	0	0
	C	46	0	0	0	55	638	2	741
	D	0	0	0	0	0	0	0	0
	E	0	0	54	0	0	89	2	145
	F	38	0	535	0	120	0	6	699
	G	0	0	5	0	1	13	0	19
	Tot.	84	0	655	0	176	815	10	1740

Traffic Lane Flows

Lane	Scenario 4: 2021 with dev - Weekday AM Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	19
J1:2/1 (with short)	145(In) 91(Out)
J1:2/2 (short)	54
J1:3/1	579
J1:3/2	120
J1:4/1	176
J1:5/1 (with short)	770(In) 768(Out)
J1:5/2 (short)	2
J1:6/1	815
J1:7/1	10
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	741
J2:2/1	632
J2:3/1	136
J2:4/1	84
J2:5/1	655
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

Lane Saturation Flows

Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	26.3 %	1643	1643
				Arm J1:4 Ahead	Inf	5.3 %		
				Arm J1:6 Right	14.00	68.4 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	97.8 %	1696	1696
				Arm J1:7 Ahead	Inf	2.2 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	99.0 %	1928	1928
				Arm J1:7 Left	4.00	1.0 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	7.2 %	1928	1928
				Arm J1:6 Ahead	Inf	92.8 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	100.0 %	1729	1729
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	6.2 %	1969	1969
				Arm J1:5 Ahead	Inf	93.8 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	6.0 %	1945	1945
				Arm J2:5 Ahead	Inf	94.0 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	44.9 %	1560	1560
				Arm J1:5 Right	14.00	55.1 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 5: '2021 with dev - Weekday PM Peak' (FG8: '2021 with dev. Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	52	0	0	89	0	141
	B	0	0	0	0	0	0	0	0
	C	83	0	0	0	50	638	5	776
	D	0	0	0	0	0	0	0	0
	E	0	0	64	0	0	124	6	194
	F	80	0	607	0	104	0	8	799
	G	0	0	7	0	8	16	0	31
	Tot.	163	0	730	0	162	867	19	1941

Traffic Lane Flows

Lane	Scenario 5: 2021 with dev - Weekday PM Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	31
J1:2/1 (with short)	194(In) 130(Out)
J1:2/2 (short)	64
J1:3/1	695
J1:3/2	104
J1:4/1	162
J1:5/1 (with short)	782(In) 777(Out)
J1:5/2 (short)	5
J1:6/1	867
J1:7/1	19
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	776
J2:2/1	758
J2:3/1	141
J2:4/1	163
J2:5/1	730
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

Lane Saturation Flows

Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	22.6 %	1689	1689
				Arm J1:4 Ahead	Inf	25.8 %		
				Arm J1:6 Right	14.00	51.6 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	95.4 %	1702	1702
				Arm J1:7 Ahead	Inf	4.6 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	98.8 %	1927	1927
				Arm J1:7 Left	4.00	1.2 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	6.4 %	1929	1929
				Arm J1:6 Ahead	Inf	93.6 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	100.0 %	1729	1729
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road

Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	10.7 %	1937	1937
				Arm J1:5 Ahead	Inf	89.3 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	10.6 %	1945	1945
				Arm J2:5 Ahead	Inf	89.4 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	36.9 %	1588	1588
				Arm J1:5 Right	14.00	63.1 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2021 with dev - Weekend Peak' (FG9: '2021 with dev. Weekend Peak', Plan 3: 'No Private Drive-ways - double cycle')

Traffic Flows, Desired

Desired Flow :

	Destination								
		A	B	C	D	E	F	G	Tot.
Origin	A	0	0	44	0	0	73	0	117
	B	0	0	0	0	0	0	0	0
	C	46	0	0	0	44	578	0	668
	D	0	0	0	0	0	0	0	0
	E	0	0	41	0	0	63	0	104
	F	60	0	496	0	71	0	7	634
	G	0	0	5	0	1	9	0	15
	Tot.	106	0	586	0	116	723	7	1538

Traffic Lane Flows

Lane	Scenario 6: 2021 with dev - Weekend Peak
Junction: J1: Longview Road / Warrington Road / Whiston Hospital	
J1:1/1	15
J1:2/1 (with short)	104(In) 63(Out)
J1:2/2 (short)	41
J1:3/1	563
J1:3/2	71
J1:4/1	116
J1:5/1 (with short)	695(In) 695(Out)
J1:5/2 (short)	0
J1:6/1	723
J1:7/1	7
Junction: J2: Holt Lane / Warrington Road	
J2:1/1	668
J2:2/1	602
J2:3/1	117
J2:4/1	106
J2:5/1	586
J2:6/1	0
J2:7/1	0
J2:8/1	0
J2:9/1	0

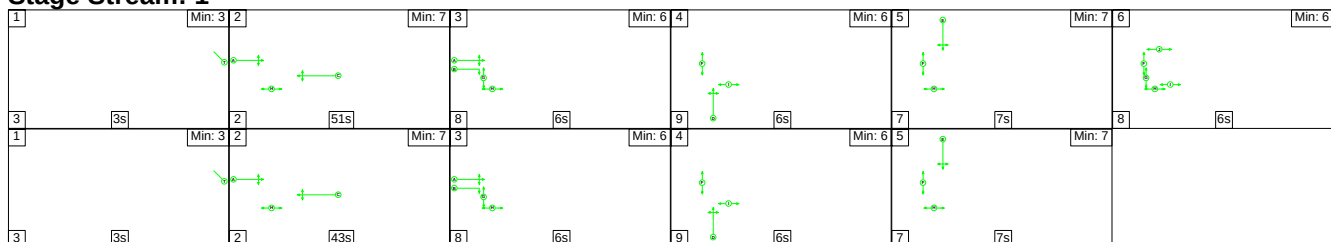
Junction: J1: Longview Road / Warrington Road / Whiston Hospital								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J1:1/1 (Longview Road)	3.10	0.00	Y	Arm J2:2 Left	4.00	33.3 %	1619	1619
				Arm J1:4 Ahead	Inf	6.7 %		
				Arm J1:6 Right	14.00	60.0 %		
J1:2/1 (Whiston Hospital)	3.30	0.00	Y	Arm J1:6 Left	10.00	100.0 %	1691	1691
				Arm J1:7 Ahead	Inf	0.0 %		
J1:2/2 (Whiston Hospital)	3.30	0.00	Y	Arm J2:2 Right	15.00	100.0 %	1768	1768
J1:3/1 (Warrington Road West)	3.20	0.00	Y	Arm J2:2 Ahead	Inf	98.8 %	1926	1926
				Arm J1:7 Left	4.00	1.2 %		
J1:3/2 (Warrington Road West)	3.20	0.00	Y	Arm J1:4 Right	12.00	100.0 %	1720	1720
J1:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:5/1 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:4 Left	12.00	6.3 %	1930	1930
				Arm J1:6 Ahead	Inf	93.7 %		
J1:5/2 (Warrington Road westbound)	3.30	0.00	Y	Arm J1:7 Right	12.00	0.0 %	1945	1945
J1:6/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

Junction: J2: Holt Lane / Warrington Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
J2:1/1 (Warrington Road East)	4.00	0.00	Y	Arm J2:4 Right	4.00	6.9 %	1964	1964
				Arm J1:5 Ahead	Inf	93.1 %		
				Arm J2:7 Left	4.00	0.0 %		
				Arm J2:9 U-Turn	Inf	0.0 %		
J2:2/1 (Warrington Road Eastbound)	3.30	0.00	Y	Arm J2:4 Left	Inf	10.0 %	1945	1945
				Arm J2:5 Ahead	Inf	90.0 %		
				Arm J2:7 Right	Inf	0.0 %		
				Arm J2:9 Ahead	Inf	0.0 %		
J2:3/1 (Holt Lane)	3.00	0.00	Y	Arm J2:5 Left	4.00	37.6 %	1585	1585
				Arm J1:5 Right	14.00	62.4 %		
				Arm J2:7 Ahead	Inf	0.0 %		
				Arm J2:9 Left	Inf	0.0 %		
J2:4/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:5/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:6/1 (ACCESS)	2.75	0.00	Y	Arm J2:4 Ahead	Inf	0.0 %	1890	1890
				Arm J2:5 Right	4.00	0.0 %		
				Arm J1:5 Left	4.00	0.0 %		
J2:7/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf
J2:8/1 (Access)	2.30	0.00	Y	Arm J2:4 Right	4.00	0.0 %	1845	1845
				Arm J2:5 U-Turn	4.00	0.0 %		
				Arm J1:5 Ahead	4.00	0.0 %		
				Arm J2:7 Left	4.00	0.0 %		
J2:9/1 (EXIT Lane 1)	Infinite Saturation Flow						Inf	Inf

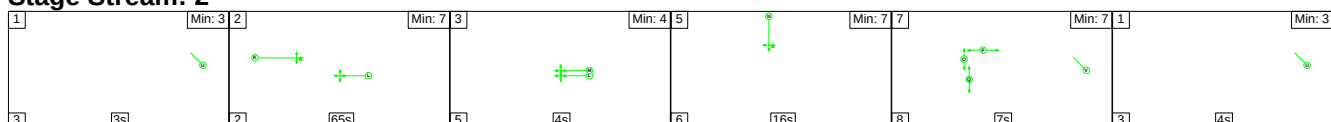
Scenario 1: '2021 Baseline - Weekday AM Peak' (FG1: '2021 Baseline Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

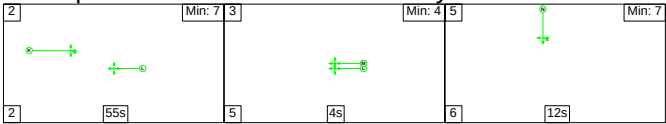
Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2





Stage Timings

Stage Stream: 1

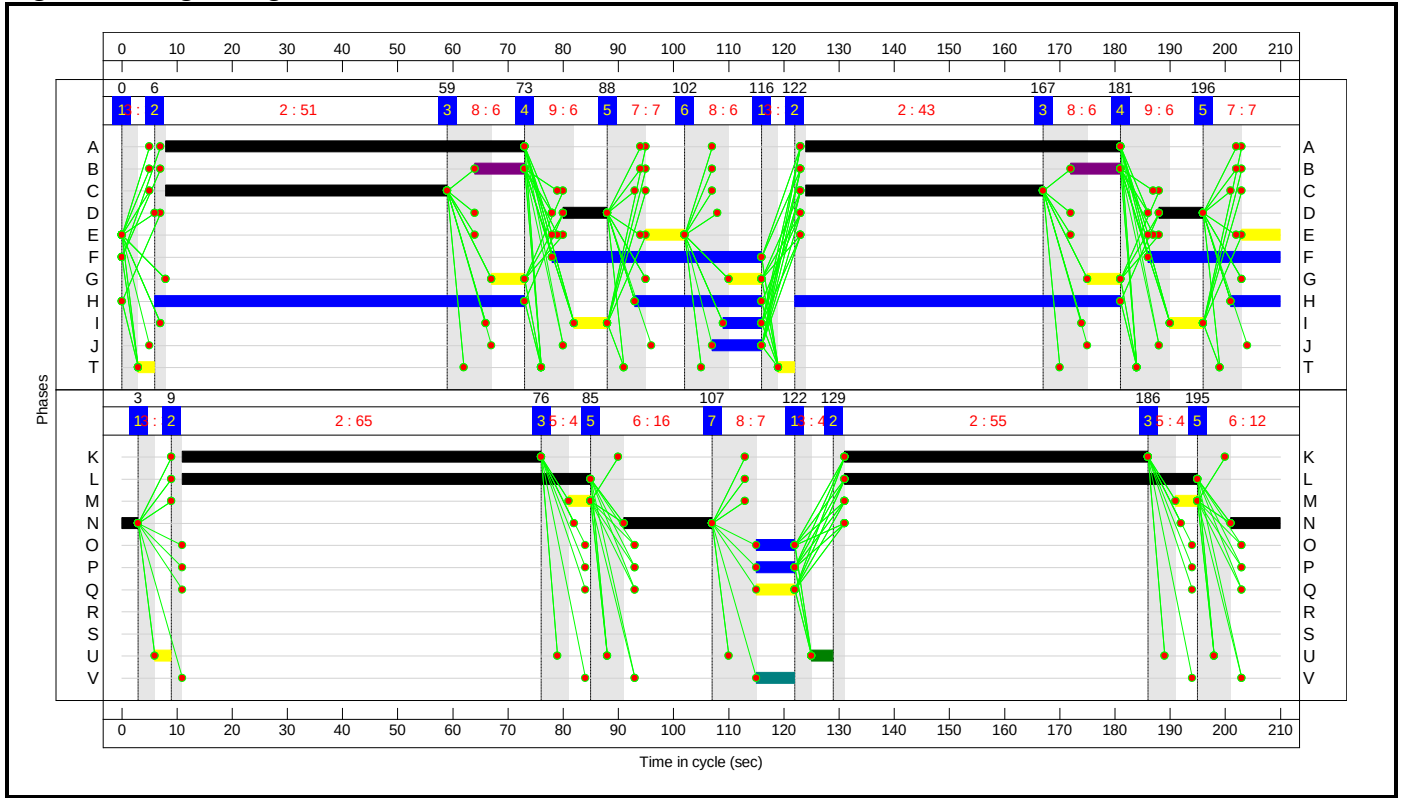
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Duration	3	51	6	6	7	6	3	43	6	6
Change Point	0	6	59	73	88	102	116	122	167	181

Stage	5									
Duration	7									
Change Point	196									

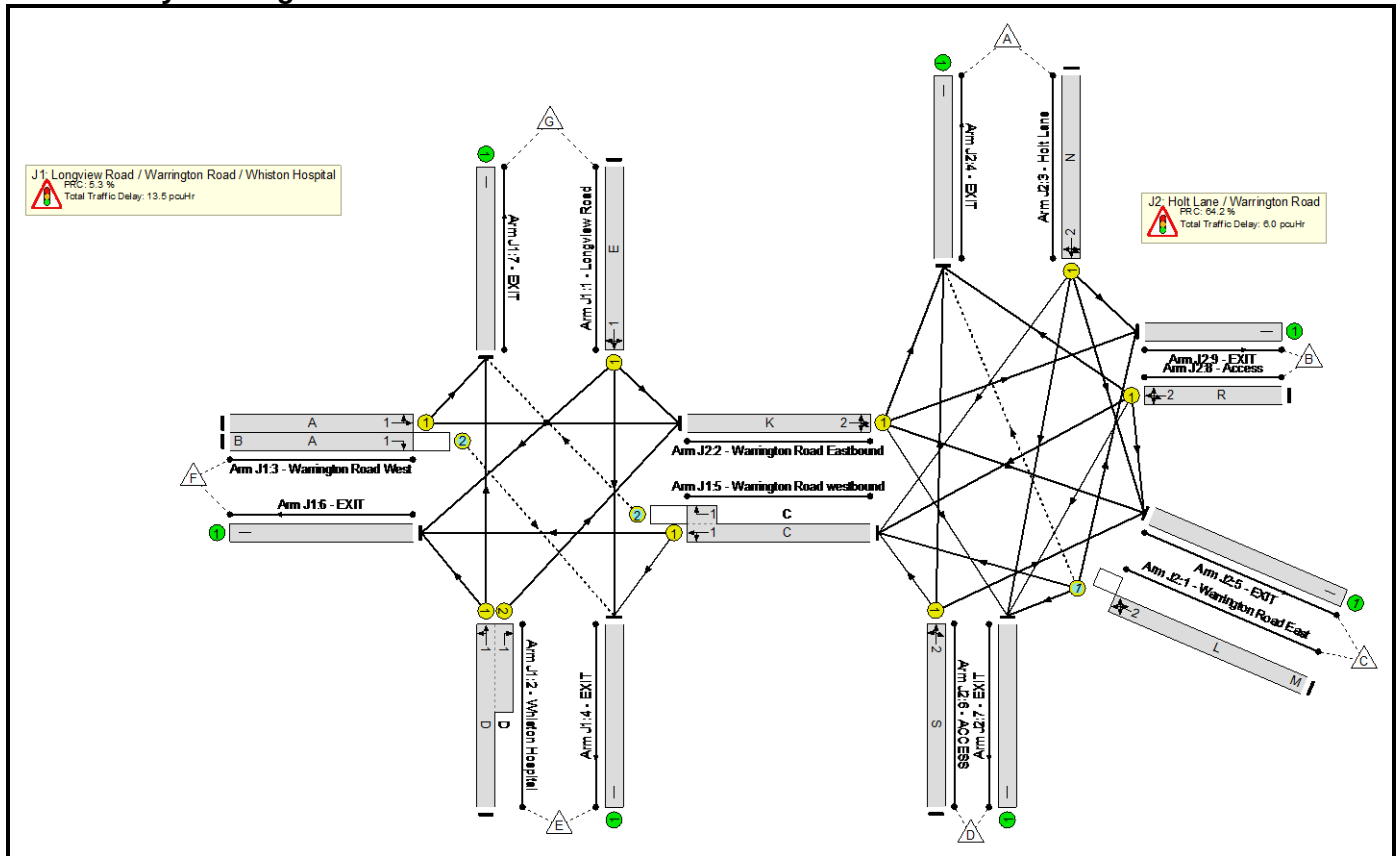
Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	65	4	16	7	4	55	4	12
Change Point	3	9	76	85	107	122	129	186	195

Signal Timings Diagram



Network Layout Diagram



Network Results

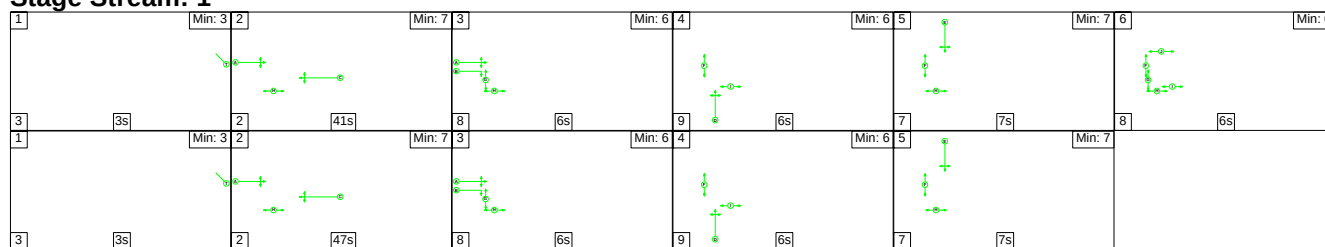
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	85.4%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	85.4%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	19	1643	125	15.2%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	145	1696:1768	145+86	62.6 : 62.6%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	122	-	565	1927	1138	49.7%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	122	18	120	1720	349	34.3%
4/1	EXIT	U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	94	-	754	1927:1729	880+2	85.4 : 85.4%
6/1	EXIT	U	N/A	N/A	-		-	-	-	799	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	54.8%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	138	8	725	1984	1323	54.8%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	120	-	618	1945	1130	54.7%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	28	-	107	1560	223	48.0%
4/1	EXIT	U	N/A	N/A	-		-	-	-	54	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

All Input Data And Results Summary													
8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	81	67	4	12.4	6.1	0.9	19.5	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	54	65	3	8.1	4.5	0.9	13.5	-	-	-	-
1/1	19	19	-	-	-	0.2	0.1	-	0.3	62.3	0.5	0.1	0.6
2/1+2/2	145	145	-	-	-	1.9	0.8	-	2.7	66.4	2.6	0.8	3.5
3/1	565	565	-	-	-	2.0	0.5	-	2.5	15.9	11.0	0.5	11.5
3/2	120	120	52	65	3	0.3	0.3	0.9	1.5	43.7	1.8	0.3	2.0
4/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	754	754	2	0	0	3.7	2.8	0.0	6.5	31.2	17.9	2.8	20.7
6/1	799	799	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	27	2	1	4.3	1.7	0.1	6.0	-	-	-	-
1/1	725	725	27	2	1	2.0	0.6	0.1	2.7	13.2	14.1	0.6	14.7
2/1	618	618	-	-	-	1.0	0.6	-	1.6	9.4	13.5	0.6	14.2
3/1	107	107	-	-	-	1.2	0.5	-	1.7	56.9	2.9	0.5	3.4
4/1	54	54	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 5.3 Total Delay for Signalled Lanes (pcuHr): 13.49 Cycle Time (s): 210 C1 Stream: 2 PRC for Signalled Lanes (%): 64.2 Total Delay for Signalled Lanes (pcuHr): 5.97 Cycle Time (s): 210 PRC Over All Lanes (%): 5.3 Total Delay Over All Lanes(pcuHr): 19.46													

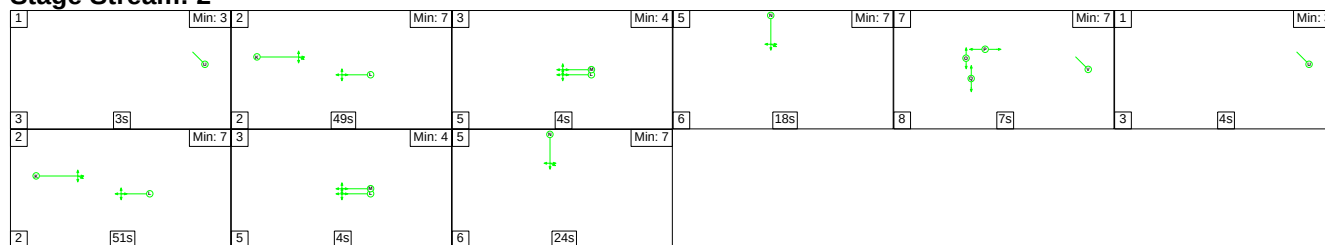
Scenario 2: '2021 Baseline - Weekday PM Peak' (FG2: '2021 Baseline Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

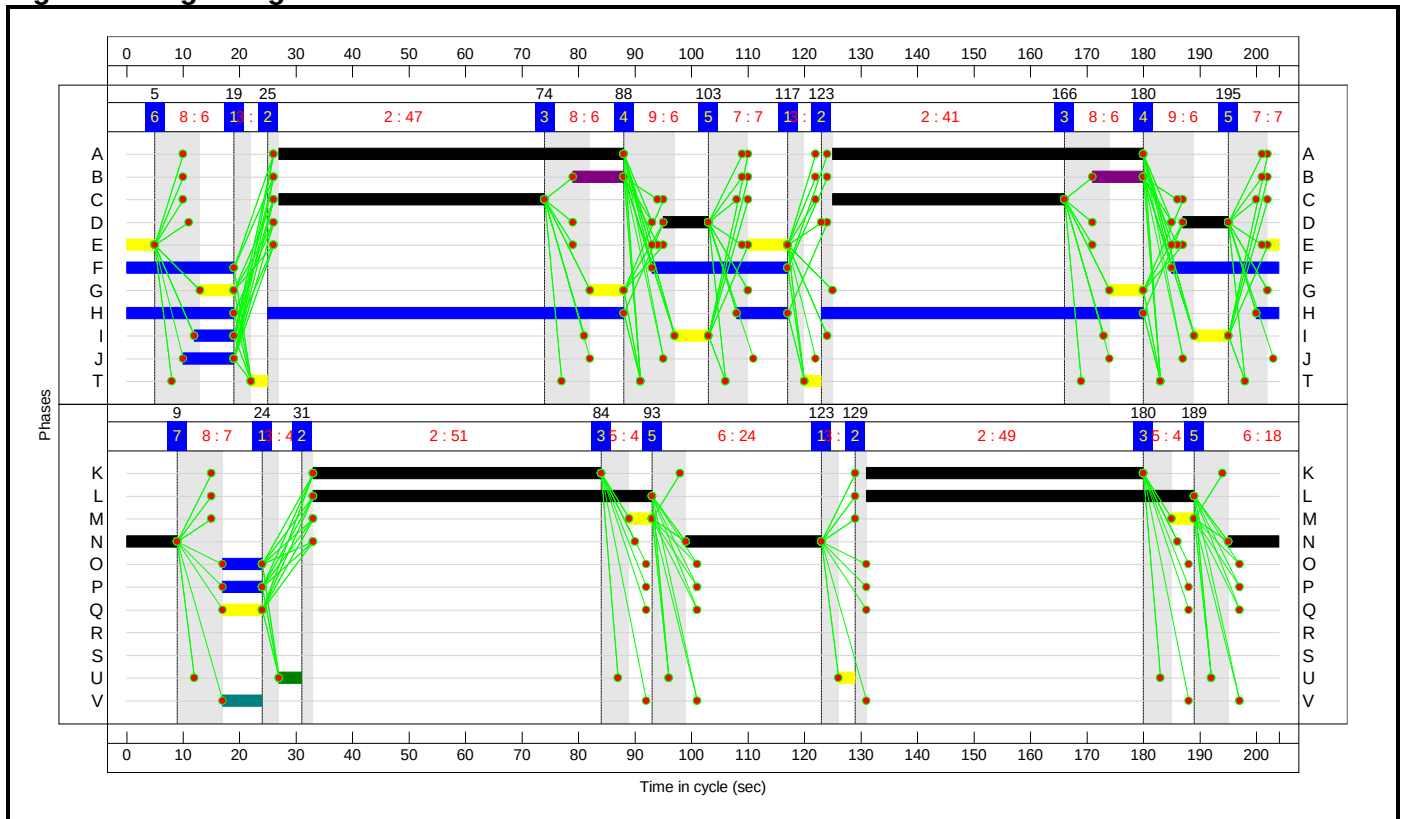
Stage	1	2	3	4	5	6	1	2	3	4
Duration	3	41	6	6	7	6	3	47	6	6
Change Point	117	123	166	180	195	5	19	25	74	88

Stage	5									
Duration	7									
Change Point	103									

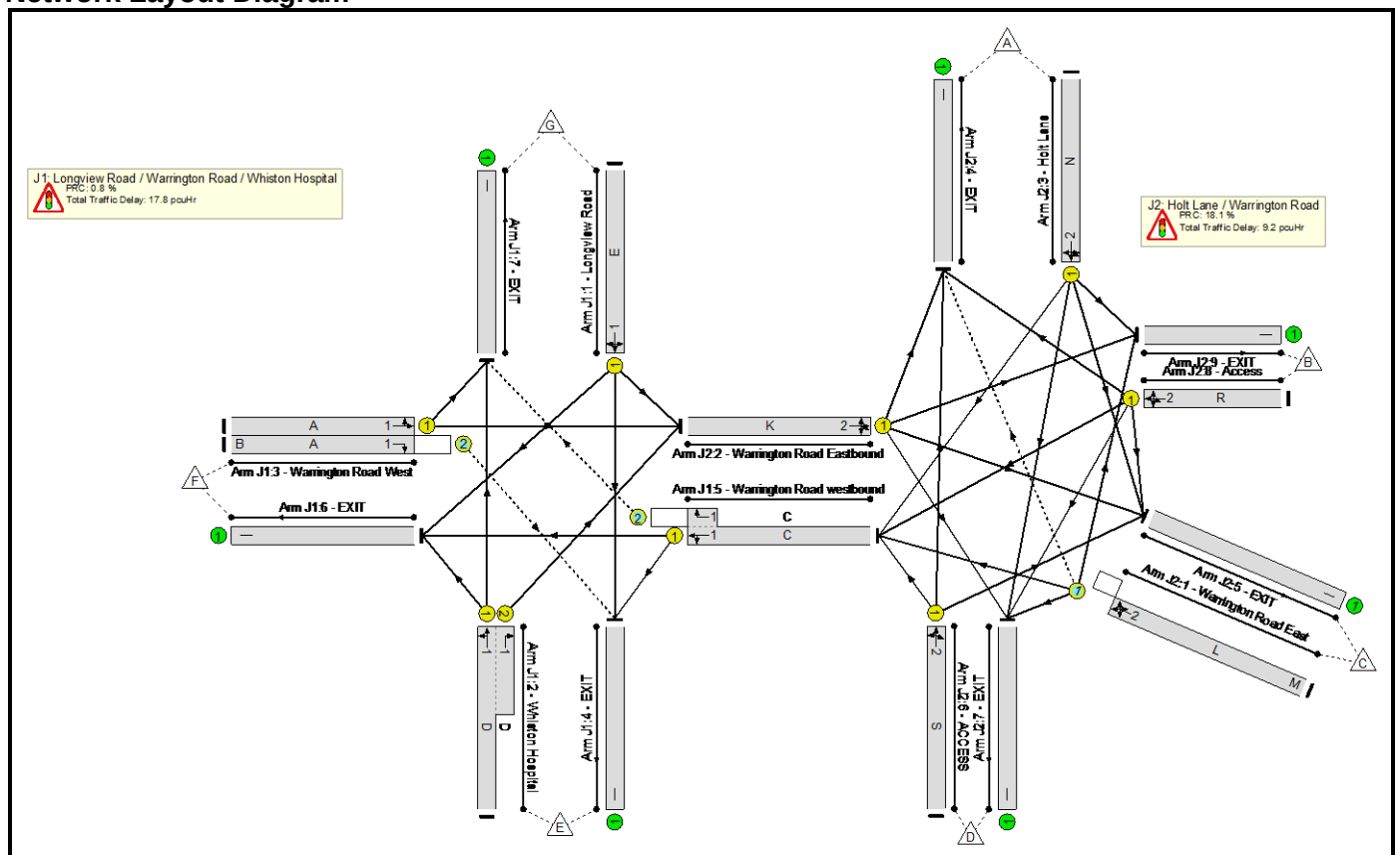
Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	49	4	18	7	4	51	4	24
Change Point	123	129	180	189	9	24	31	84	93

Signal Timings Diagram



Network Layout Diagram



Network Results

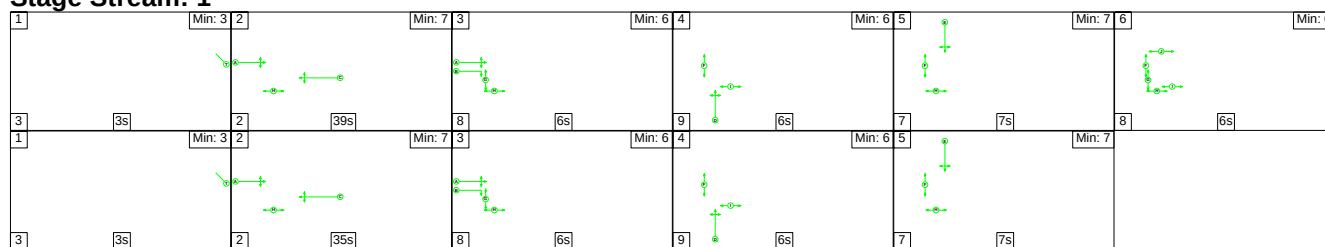
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	89.3%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	31	1689	132	23.4%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	194	1702:1768	150+74	86.6 : 86.6%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	116	-	678	1926	1114	60.9%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	116	18	104	1720	317	32.8%
4/1	EXIT	U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	88	-	761	1929:1729	847+6	89.3 : 89.3%
6/1	EXIT	U	N/A	N/A	-		-	-	-	846	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	76.2%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	118	8	757	1953	1126	67.3%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	100	-	741	1945	973	76.2%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	42	-	100	1605	346	28.9%
4/1	EXIT	U	N/A	N/A	-		-	-	-	127	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	710	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	77	92	4	15.3	10.5	1.1	27.0	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	19	87	3	9.2	7.7	0.8	17.8	-	-	-	-
1/1	31	31	-	-	-	0.4	0.2	-	0.5	62.3	0.9	0.2	1.1
2/1+2/2	194	194	-	-	-	2.5	2.7	-	5.2	96.4	4.0	2.7	6.7
3/1	678	678	-	-	-	2.7	0.8	-	3.5	18.5	14.5	0.8	15.3
3/2	104	104	14	87	3	0.3	0.2	0.8	1.4	46.9	1.5	0.2	1.8
4/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	761	761	5	0	0	3.4	3.8	0.0	7.2	34.3	8.3	3.8	12.2
6/1	846	846	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	58	4	1	6.1	2.8	0.3	9.2	-	-	-	-
1/1	757	757	58	4	1	3.0	1.0	0.3	4.3	20.5	16.0	1.0	17.0
2/1	741	741	-	-	-	2.1	1.6	-	3.7	18.0	18.1	1.6	19.7
3/1	100	100	-	-	-	0.9	0.2	-	1.1	41.2	2.6	0.2	2.8
4/1	127	127	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	710	710	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 0.8 C1 Stream: 2 PRC for Signalled Lanes (%): 18.1 PRC Over All Lanes (%): 0.8 Total Delay for Signalled Lanes (pcuHr): 17.81 Total Delay for Signalled Lanes (pcuHr): 9.16 Total Delay Over All Lanes(pcuHr): 26.97 Cycle Time (s): 204 Cycle Time (s): 204													

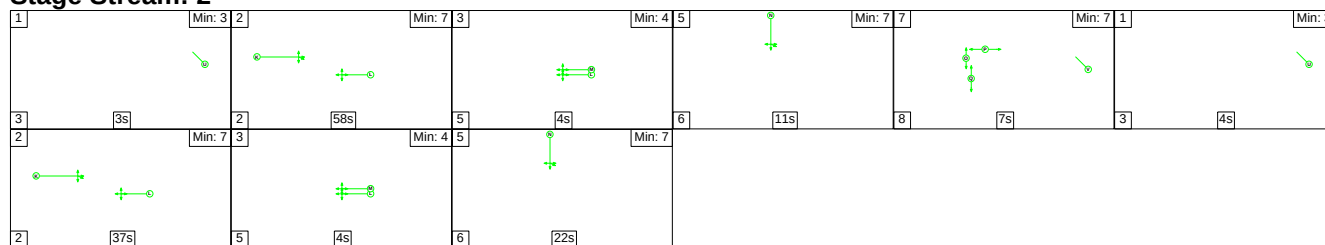
Scenario 3: '2021 Baseline - Weekend Peak' (FG3: '2021 Baseline Saturday Peak', Plan 3: 'No Private Drive-ways - double cycle')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

Stage	1	2	3	4	5	6	1	2	3	4
Duration	3	39	6	6	7	6	3	35	6	6
Change Point	143	149	0	14	29	43	57	63	100	114

Stage	5									
Duration	7									
Change Point	129									

Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	58	4	11	7	4	37	4	22
Change Point	145	151	21	30	47	62	69	108	117

The diagram illustrates a proposed interchange for Warrington Hospital, showing the layout of roads, lane configurations, and traffic flow. The interchange is a complex multi-lane junction involving Longview Road, Warrington Road, and Holt Lane.

Junction 1: Longview Road / Warrington Road / Whiston Hospital

- PRC: 3.0 %
- Total Traffic Delay: 11.7 pcuHr

Junction 2: Holt Lane / Warrington Road

- PRC: 52.8 %
- Total Traffic Delay: 5.3 pcuHr

The diagram shows the following lane configurations and traffic flow:

- Longview Road:** Approaching from the top, it splits into two main directions. The left side has two lanes (A and B) for westbound traffic. The right side has two lanes (C and D) for eastbound traffic. There are also two exit lanes (E and F) for the hospital area.
- Warrington Road:** Approaching from the bottom, it splits into two main directions. The left side has two lanes (G and H) for westbound traffic. The right side has two lanes (I and J) for eastbound traffic. There are also two exit lanes (K and L) for the hospital area.
- Holt Lane:** Approaching from the right, it splits into two main directions. The top side has two lanes (M and N) for northbound traffic. The bottom side has two lanes (O and P) for southbound traffic. There are also two exit lanes (Q and R) for the hospital area.

The diagram also shows the proposed interchange layout, including the location of the hospital and the proposed interchange structure. The interchange is a complex multi-lane junction involving Longview Road, Warrington Road, and Holt Lane.

Network Results

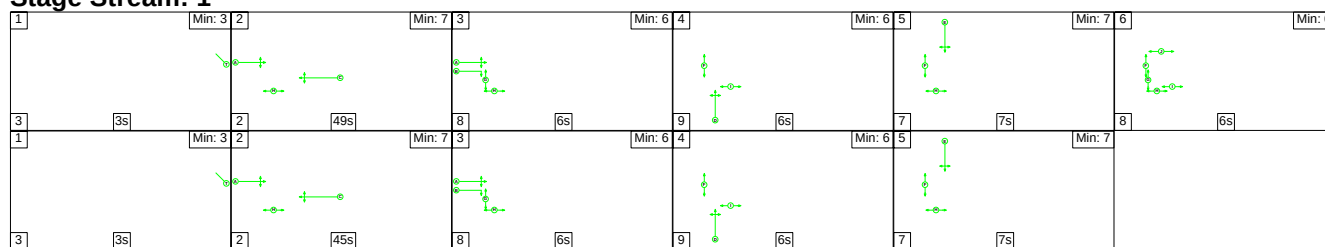
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.4%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	87.4%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	15	1619	136	11.0%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	104	1691:1768	160+104	39.3 : 39.3%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	102	-	546	1926	1054	51.8%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	102	18	71	1720	351	20.3%
4/1	EXIT	U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	74	-	674	1929:1945	772+0	87.4 : 0.0%
6/1	EXIT	U	N/A	N/A	-		-	-	-	702	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	58.9%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	113	8	649	1984	1201	54.0%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	95	-	585	1945	993	58.9%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	33	-	76	1607	296	25.7%
4/1	EXIT	U	N/A	N/A	-		-	-	-	70	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	566	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	54	41	3	10.7	5.8	0.5	17.0	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	29	39	2	7.0	4.3	0.4	11.7	-	-	-	-
1/1	15	15	-	-	-	0.2	0.1	-	0.2	55.2	0.4	0.1	0.4
2/1+2/2	104	104	-	-	-	1.2	0.3	-	1.5	51.5	1.6	0.3	2.0
3/1	546	546	-	-	-	2.1	0.5	-	2.7	17.5	10.5	0.5	11.0
3/2	71	71	29	39	2	0.2	0.1	0.4	0.8	38.5	1.0	0.1	1.2
4/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	674	674	0	0	0	3.3	3.2	0.0	6.6	35.1	8.7	3.2	12.0
6/1	702	702	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	24	2	1	3.7	1.5	0.1	5.3	-	-	-	-
1/1	649	649	24	2	1	2.0	0.6	0.1	2.6	14.6	10.6	0.6	11.2
2/1	585	585	-	-	-	1.0	0.7	-	1.7	10.8	3.9	0.7	4.7
3/1	76	76	-	-	-	0.7	0.2	-	0.9	41.4	1.8	0.2	1.9
4/1	70	70	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	566	566	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 3.0 C1 Stream: 2 PRC for Signalled Lanes (%): 52.8 PRC Over All Lanes (%): 3.0 Total Delay for Signalled Lanes (pcuHr): 11.69 Total Delay for Signalled Lanes (pcuHr): 5.26 Total Delay Over All Lanes(pcuHr): 16.96 Cycle Time (s): 190 Cycle Time (s): 190													

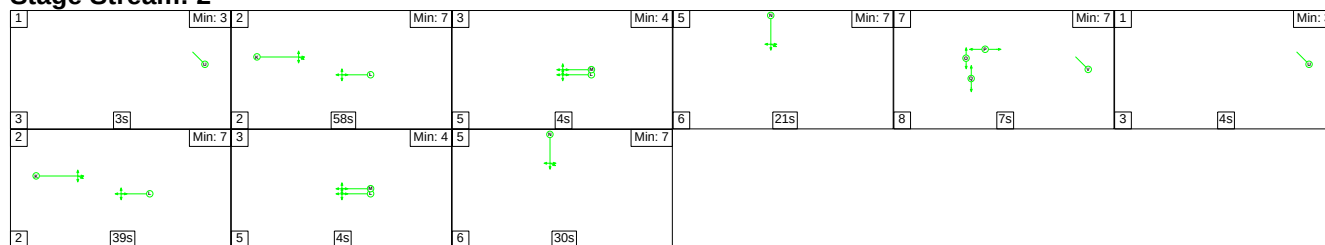
Scenario 4: '2021 with dev - Weekday AM Peak' (FG7: '2021 with dev. Weekday AM', Plan 3: 'No Private Drive-ways - double cycle')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

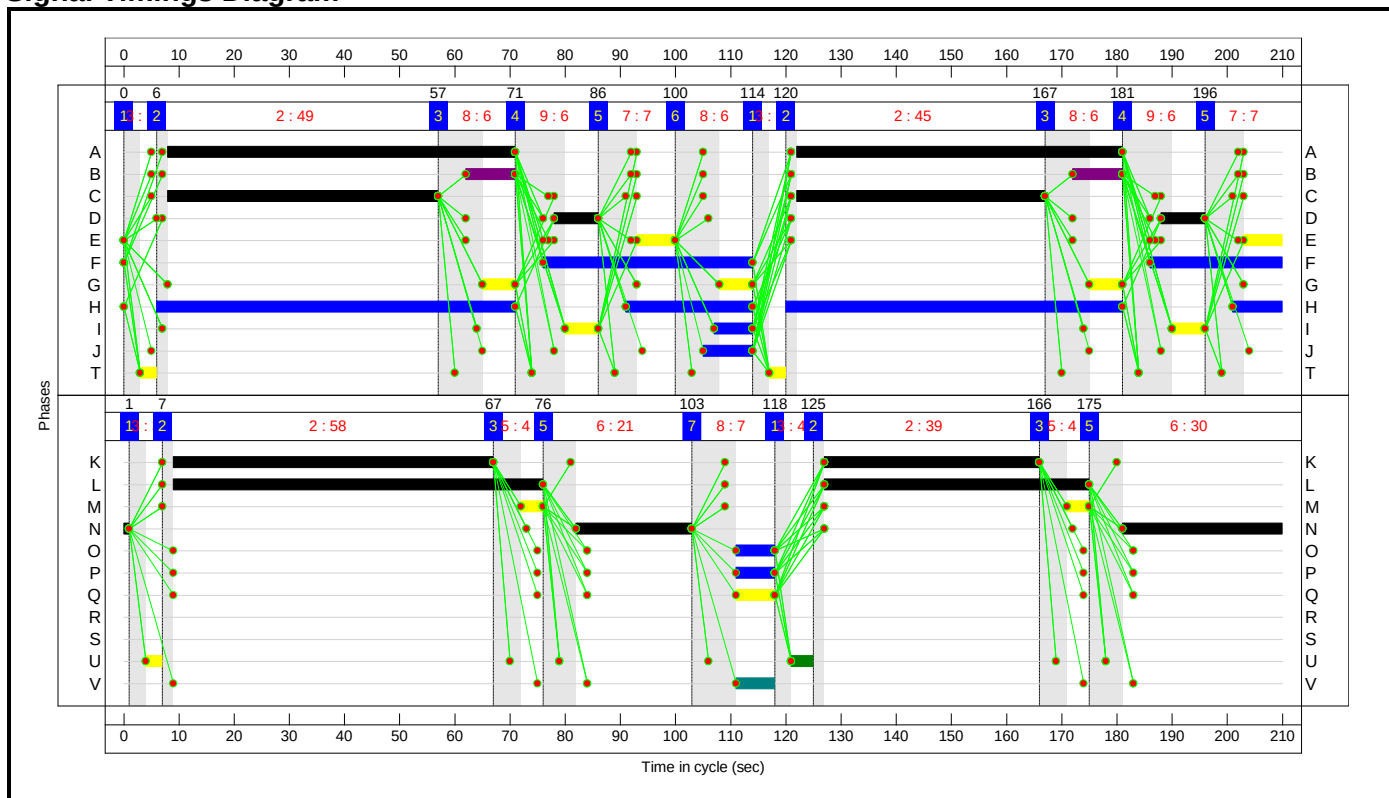
Stage	1	2	3	4	5	6	1	2	3	4
Duration	3	49	6	6	7	6	3	45	6	6
Change Point	0	6	57	71	86	100	114	120	167	181

Stage	5									
Duration	7									
Change Point	196									

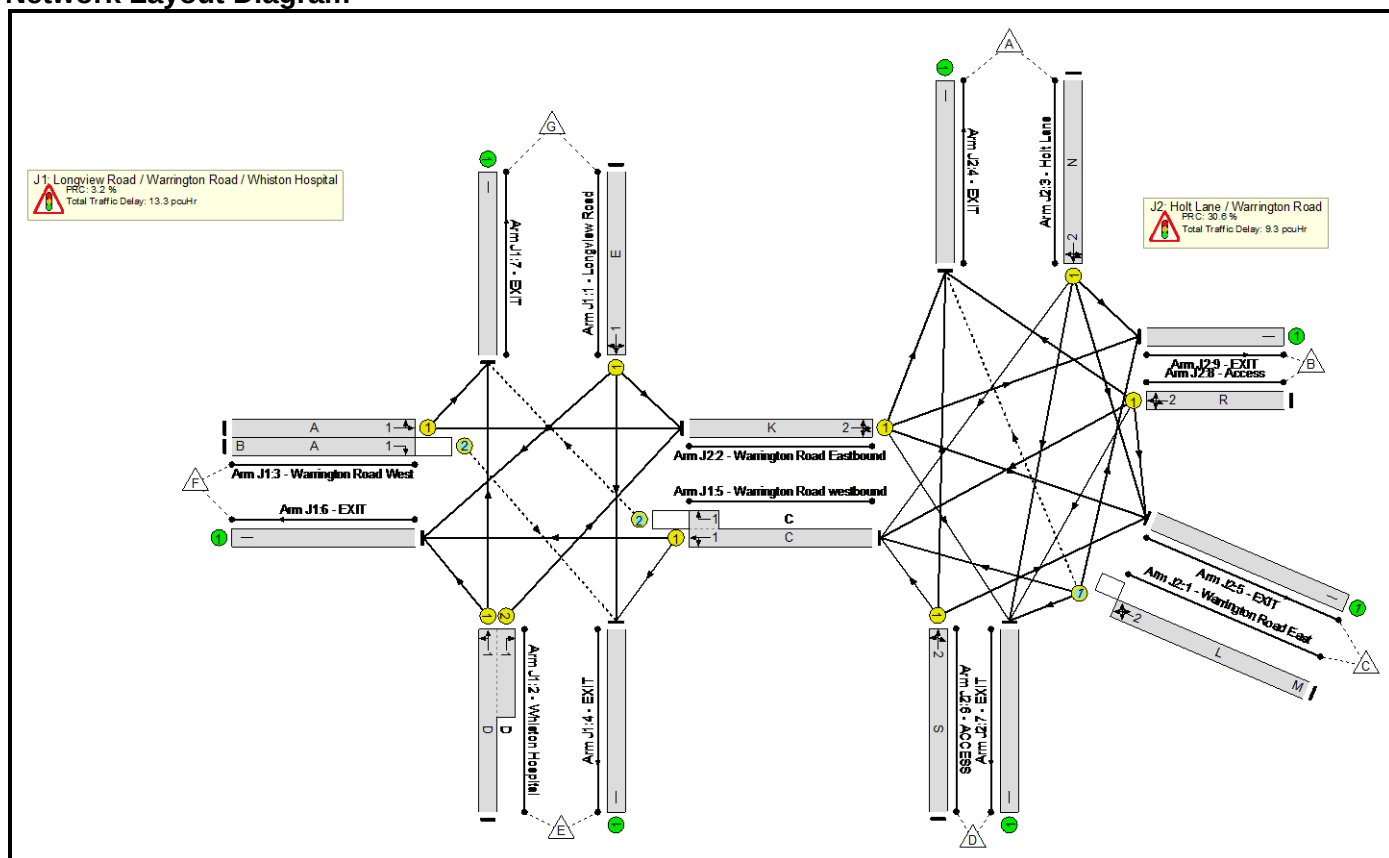
Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	58	4	21	7	4	39	4	30
Change Point	1	7	67	76	103	118	125	166	175

Signal Timings Diagram



Network Layout Diagram



Network Results

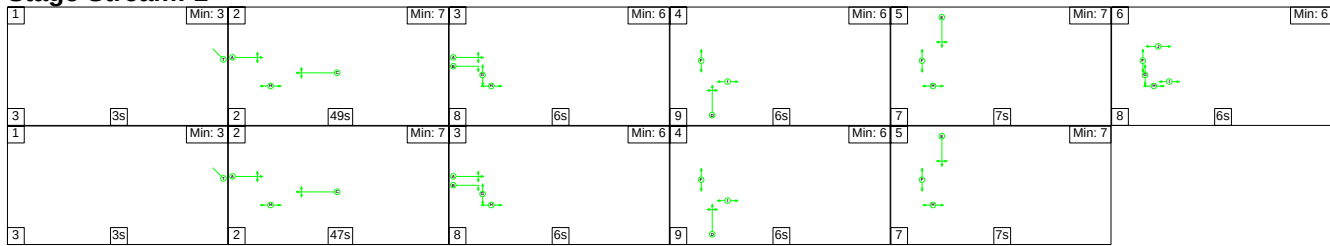
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.2%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	87.2%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	19	1643	125	15.2%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	145	1696:1768	145+86	62.6 : 62.6%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	122	-	579	1928	1138	50.9%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	122	18	120	1720	329	36.5%
4/1	EXIT	U	N/A	N/A	-		-	-	-	176	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	94	-	770	1928:1729	881+2	87.2 : 87.2%
6/1	EXIT	U	N/A	N/A	-		-	-	-	815	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	10	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	68.9%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	115	8	741	1969	1097	67.5%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	97	-	632	1945	917	68.9%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	51	-	136	1560	394	34.5%
4/1	EXIT	U	N/A	N/A	-		-	-	-	84	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	655	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	83	81	4	14.2	7.3	1.1	22.6	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	41	78	3	7.4	4.9	1.0	13.3	-	-	-	-
1/1	19	19	-	-	-	0.2	0.1	-	0.3	62.4	0.5	0.1	0.6
2/1+2/2	145	145	-	-	-	1.9	0.8	-	2.7	66.5	2.7	0.8	3.5
3/1	579	579	-	-	-	2.1	0.5	-	2.6	16.1	11.4	0.5	11.9
3/2	120	120	39	78	3	0.3	0.3	0.9	1.6	47.0	1.8	0.3	2.1
4/1	176	176	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	770	770	2	0	0	2.9	3.2	0.0	6.2	28.9	8.2	3.2	11.4
6/1	815	815	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	10	10	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	42	3	1	6.8	2.4	0.1	9.3	-	-	-	-
1/1	741	741	42	3	1	3.4	1.0	0.1	4.6	22.3	16.5	1.0	17.5
2/1	632	632	-	-	-	2.1	1.1	-	3.2	18.3	15.1	1.1	16.2
3/1	136	136	-	-	-	1.2	0.3	-	1.5	39.1	3.3	0.3	3.5
4/1	84	84	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	655	655	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 3.2 C1 Stream: 2 PRC for Signalled Lanes (%): 30.6 PRC Over All Lanes (%): 3.2 Total Delay for Signalled Lanes (pcuHr): 13.34 Total Delay for Signalled Lanes (pcuHr): 9.30 Total Delay Over All Lanes(pcuHr): 22.64 Cycle Time (s): 210 Cycle Time (s): 210													

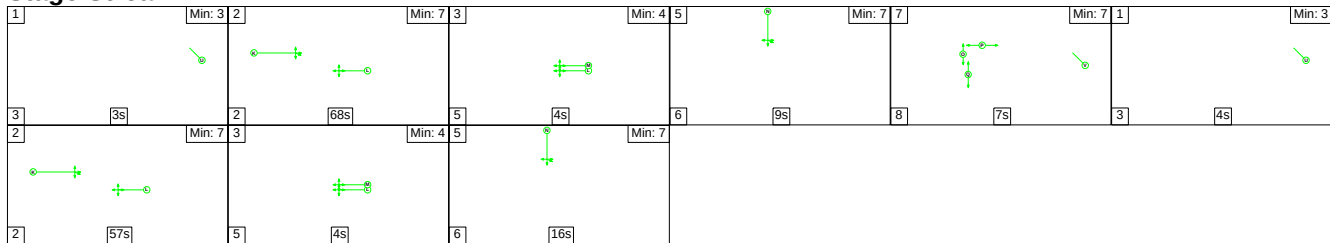
Scenario 5: '2021 with dev - Weekday PM Peak' (FG8: '2021 with dev. Weekday PM', Plan 3: 'No Private Drive-ways - double cycle')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

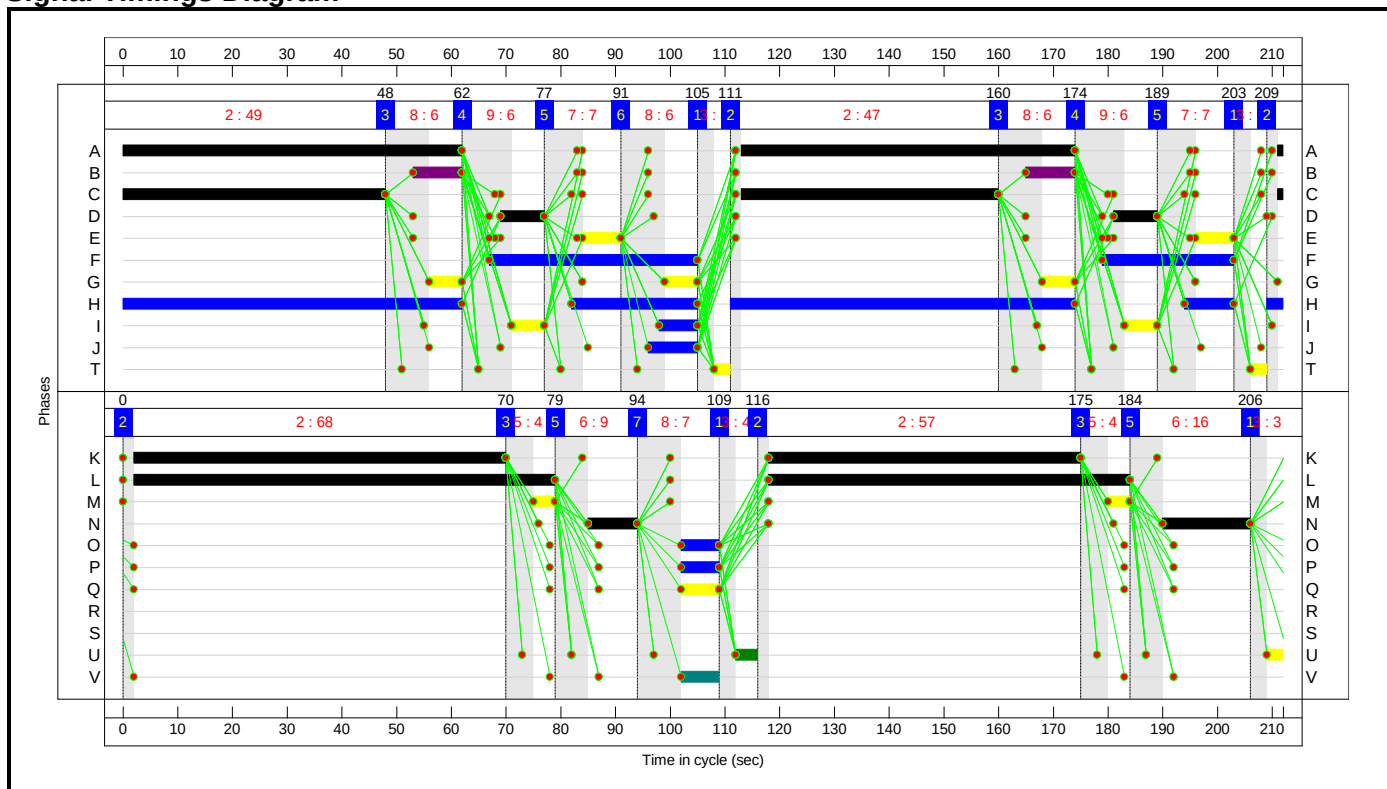
Stage	1	2	3	4	5	6	1	2	3	4
Duration	3	49	6	6	7	6	3	47	6	6
Change Point	203	209	48	62	77	91	105	111	160	174

Stage	5									
Duration	7									
Change Point	189									

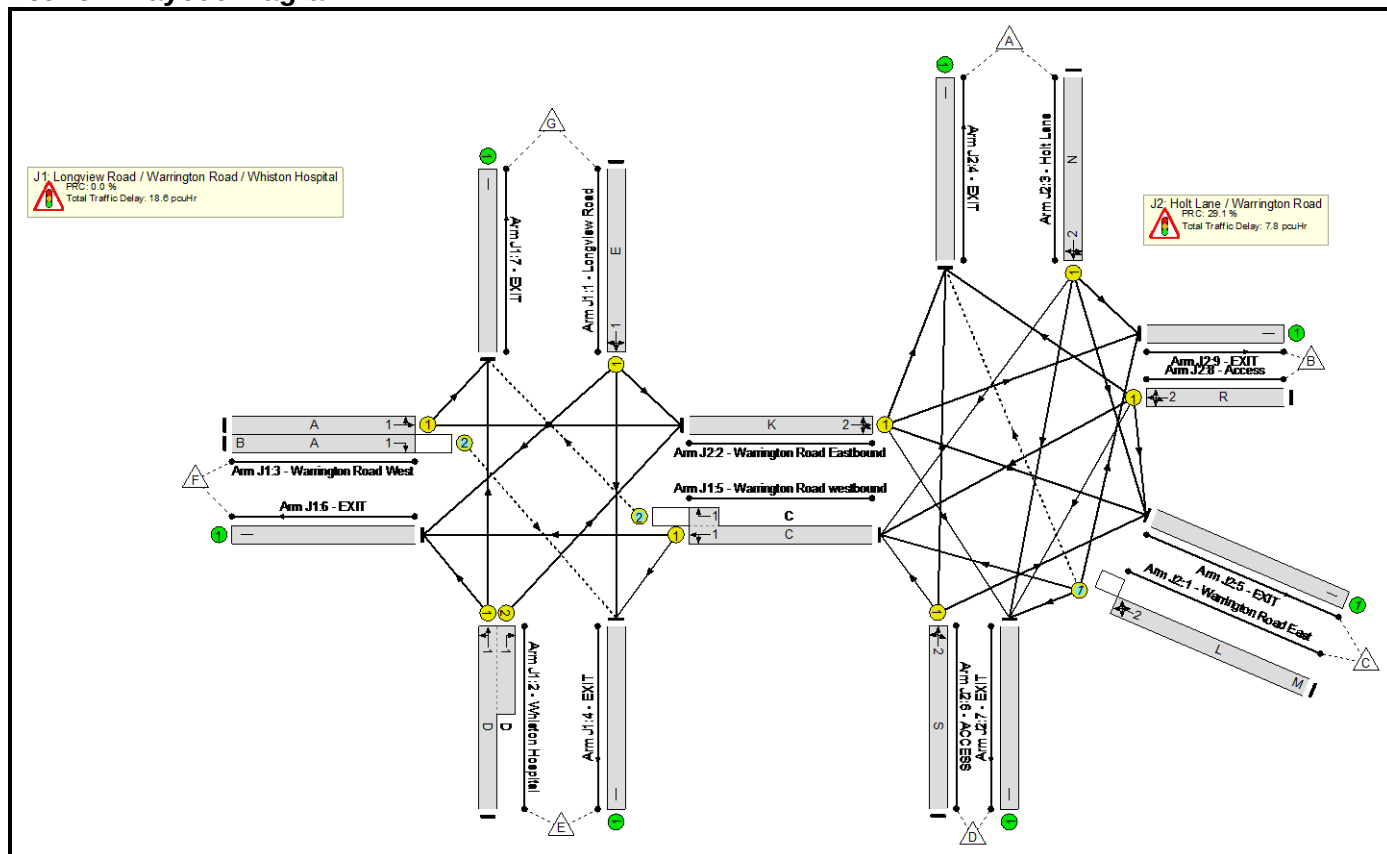
Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	68	4	9	7	4	57	4	16
Change Point	206	0	70	79	94	109	116	175	184

Signal Timings Diagram



Network Layout Diagram



Network Results

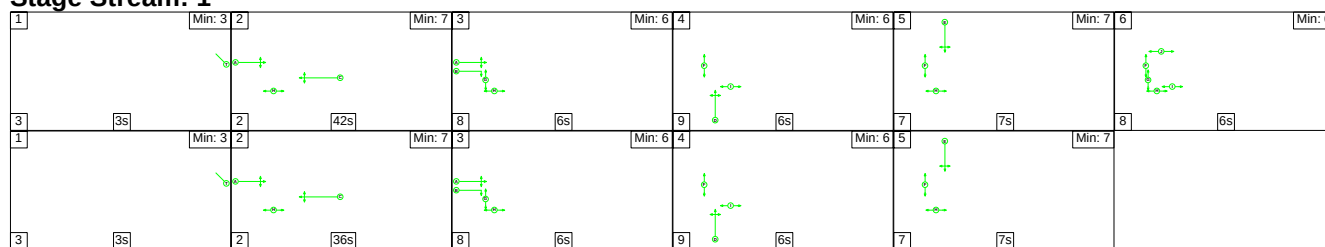
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	90.0%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	90.0%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	31	1689	127	24.3%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	194	1702:1768	145+71	90.0 : 90.0%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	124	-	695	1927	1145	60.7%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	124	18	104	1720	355	29.3%
4/1	EXIT	U	N/A	N/A	-		-	-	-	162	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	96	-	782	1929:1729	887+6	87.6 : 87.6%
6/1	EXIT	U	N/A	N/A	-		-	-	-	867	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	19	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	69.7%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	143	8	776	1937	1282	60.5%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	125	-	758	1945	1165	65.1%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	25	-	141	1588	202	69.7%
4/1	EXIT	U	N/A	N/A	-		-	-	-	163	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	730	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	137	50	5	14.7	10.7	1.1	26.5	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	61	45	3	10.0	7.9	0.8	18.6	-	-	-	-
1/1	31	31	-	-	-	0.4	0.2	-	0.6	65.0	0.9	0.2	1.1
2/1+2/2	194	194	-	-	-	2.6	3.4	-	6.0	110.8	4.0	3.4	7.4
3/1	695	695	-	-	-	2.7	0.8	-	3.5	18.0	15.1	0.8	15.8
3/2	104	104	56	45	3	0.3	0.2	0.8	1.3	43.8	1.5	0.2	1.7
4/1	162	162	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	782	782	5	0	0	4.0	3.3	0.0	7.4	34.0	22.7	3.3	26.0
6/1	867	867	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	19	19	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	76	5	2	4.7	2.8	0.3	7.8	-	-	-	-
1/1	776	776	76	5	2	1.9	0.8	0.3	3.0	14.1	13.6	0.8	14.3
2/1	758	758	-	-	-	1.0	0.9	-	2.0	9.3	6.0	0.9	6.9
3/1	141	141	-	-	-	1.7	1.1	-	2.8	72.7	4.1	1.1	5.2
4/1	163	163	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	730	730	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 0.0 C1 Stream: 2 PRC for Signalled Lanes (%): 29.1 PRC Over All Lanes (%): 0.0 Total Delay for Signalled Lanes (pcuHr): 18.64 Total Delay for Signalled Lanes (pcuHr): 7.84 Total Delay Over All Lanes(pcuHr): 26.49 Cycle Time (s): 212 Cycle Time (s): 212													

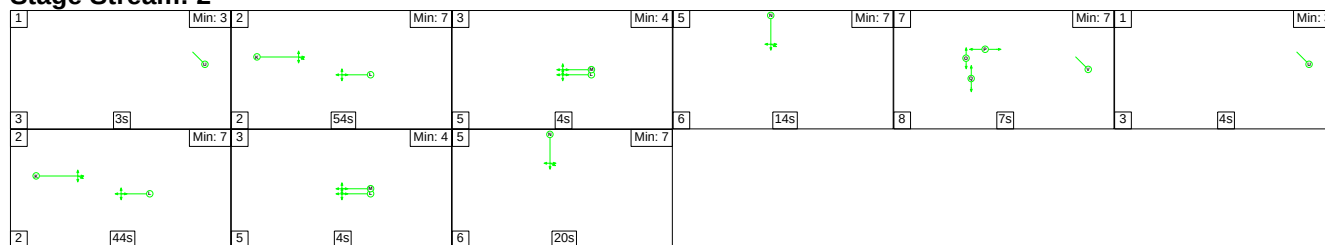
Scenario 6: '2021 with dev - Weekend Peak' (FG9: '2021 with dev. Weekend Peak', Plan 3: 'No Private Drive-ways - double cycle')

Stage Sequence Diagram

Stage Stream: 1



Stage Stream: 2



Stage Timings

Stage Stream: 1

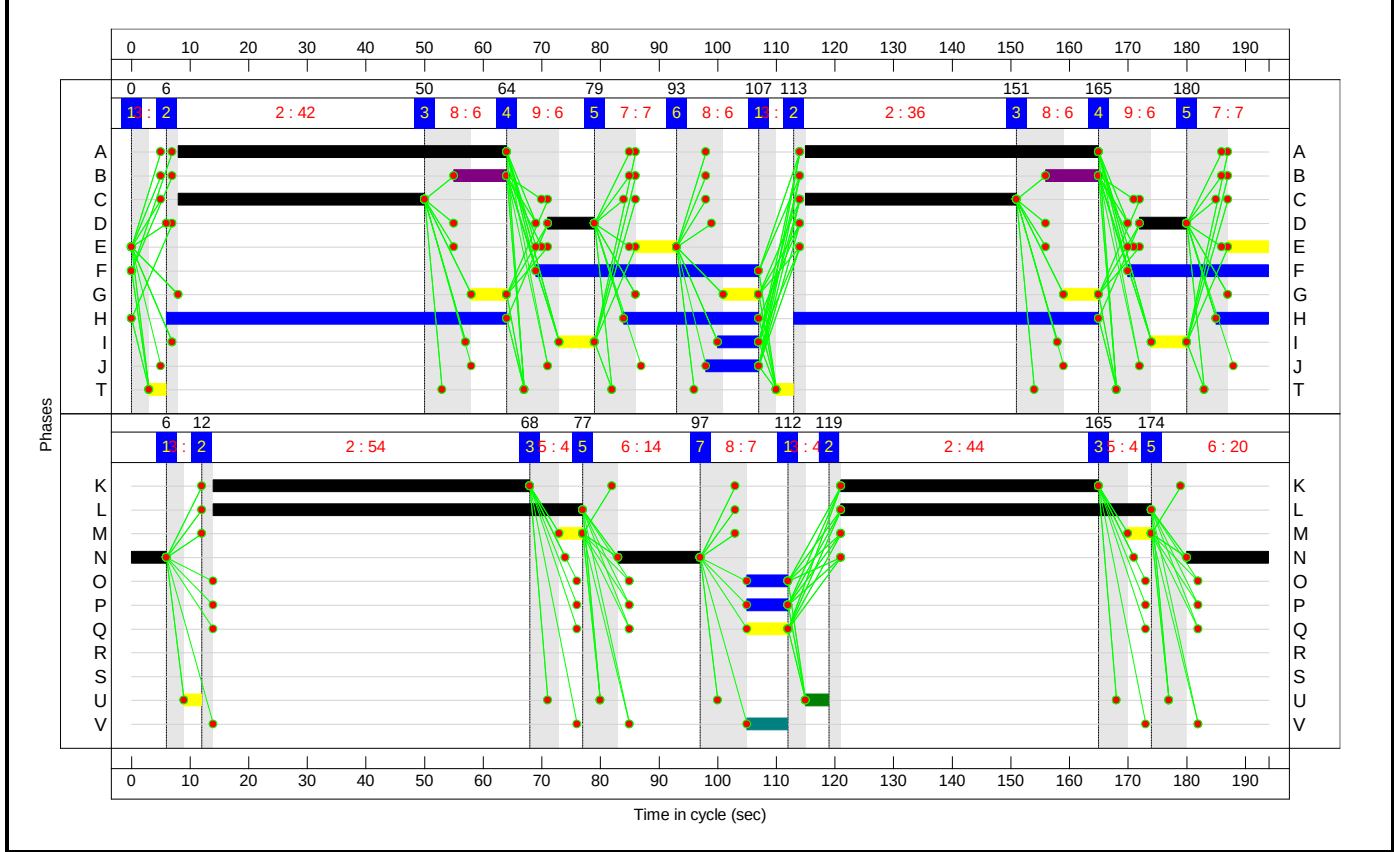
Stage	1	2	3	4	5	6	1	2	3	4
Duration	3	42	6	6	7	6	3	36	6	6
Change Point	0	6	50	64	79	93	107	113	151	165

Stage	5									
Duration	7									
Change Point	180									

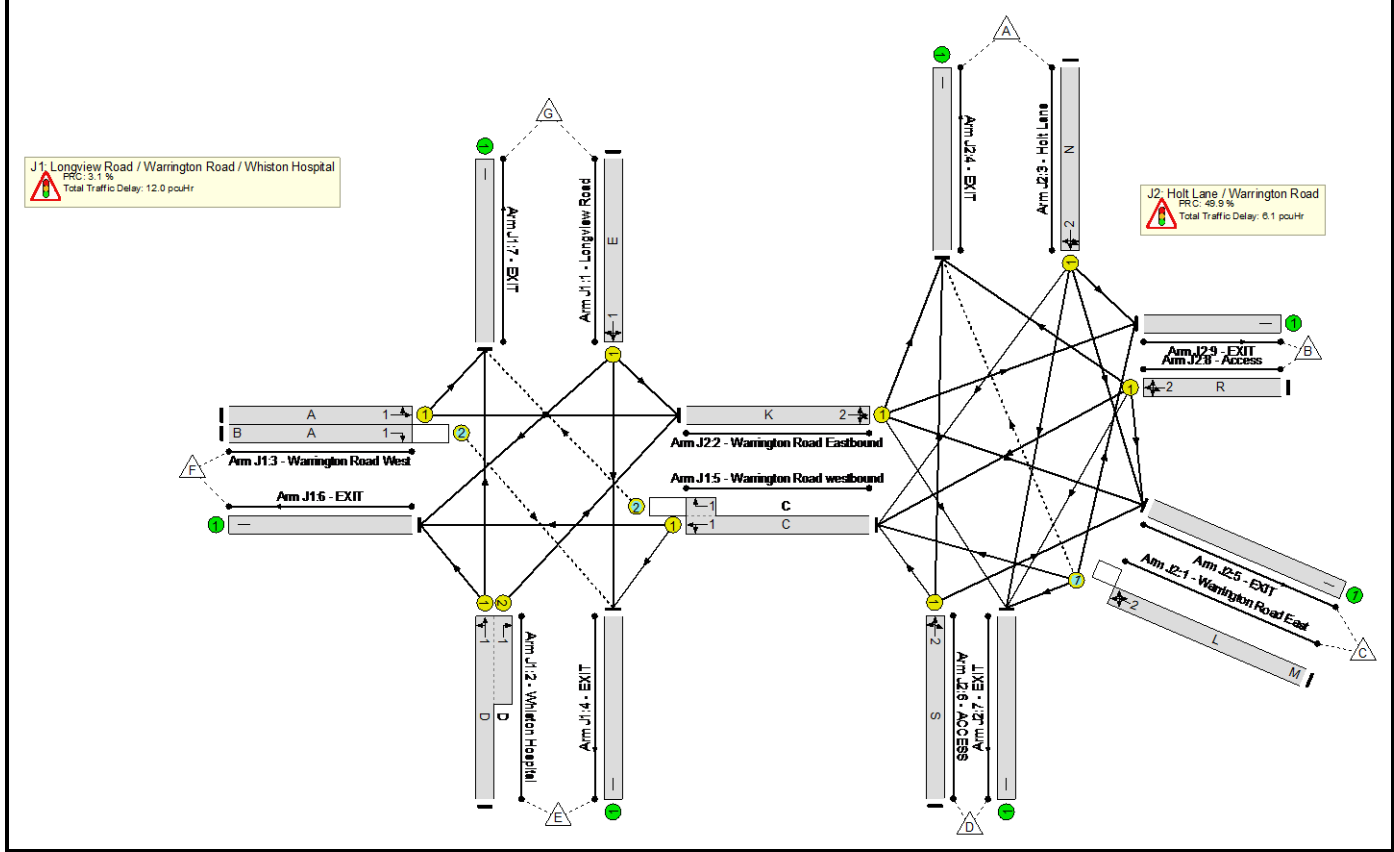
Stage Stream: 2

Stage	1	2	3	5	7	1	2	3	5
Duration	3	54	4	14	7	4	44	4	20
Change Point	6	12	68	77	97	112	119	165	174

Signal Timings Diagram



Network Layout Diagram



Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network	-	-	N/A	-	-		-	-	-	-	-	-	87.3%
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	N/A	-	-		-	-	-	-	-	-	87.3%
1/1	Longview Road Left Ahead Right	U	1	N/A	E		2	14	-	15	1619	134	11.2%
2/1+2/2	Whiston Hospital Right Left Ahead	U	1	N/A	D		2	16	-	104	1691:1768	157+102	40.2 : 40.2%
3/1	Warrington Road West Ahead Left	U	1	N/A	A		2	106	-	563	1926	1072	52.5%
3/2	Warrington Road West Right	O	1	N/A	A	B	2	106	18	71	1720	331	21.4%
4/1	EXIT	U	N/A	N/A	-		-	-	-	116	Inf	Inf	0.0%
5/1+5/2	Warrington Road westbound Left Ahead Right	U+O	1	N/A	C		2	78	-	695	1930:1945	796+0	87.3 : 0.0%
6/1	EXIT	U	N/A	N/A	-		-	-	-	723	Inf	Inf	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	7	Inf	Inf	0.0%
J2: Holt Lane / Warrington Road	-	-	N/A	-	-		-	-	-	-	-	-	60.0%
1/1	Warrington Road East Right Ahead Left U-Turn	O	2	N/A	L	M	2	116	8	668	1964	1195	55.9%
2/1	Warrington Road Eastbound Left Ahead Right Ahead2	U	2	N/A	K		2	98	-	602	1945	1003	60.0%
3/1	Holt Lane Left Right Ahead Left2	U	2	N/A	N		2	34	-	117	1585	294	39.8%
4/1	EXIT	U	N/A	N/A	-		-	-	-	106	Inf	Inf	0.0%
5/1	EXIT	U	N/A	N/A	-		-	-	-	586	Inf	Inf	0.0%
6/1	ACCESS Ahead Right Left	U	2	N/A	S		0	0	-	0	1890	0	0.0%
7/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

8/1	Access Right U-Turn Ahead Left	U	2	N/A	R		0	0	-	0	1845	0	0.0%
9/1	EXIT	U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%
Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network	-	-	70	44	3	11.6	6.0	0.6	18.2	-	-	-	-
J1: Longview Road / Warrington Road / Whiston Hospital	-	-	29	40	2	7.3	4.3	0.5	12.0	-	-	-	-
1/1	15	15	-	-	-	0.2	0.1	-	0.2	56.5	0.4	0.1	0.5
2/1+2/2	104	104	-	-	-	1.2	0.3	-	1.5	52.9	1.7	0.3	2.0
3/1	563	563	-	-	-	2.2	0.6	-	2.7	17.4	10.9	0.6	11.5
3/2	71	71	29	40	2	0.2	0.1	0.5	0.8	40.4	1.0	0.1	1.2
4/1	116	116	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1+5/2	695	695	0	0	0	3.5	3.2	0.0	6.8	35.0	8.8	3.2	12.0
6/1	723	723	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	7	7	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Holt Lane / Warrington Road	-	-	42	3	1	4.3	1.7	0.1	6.1	-	-	-	-
1/1	668	668	42	3	1	2.1	0.6	0.1	2.9	15.5	12.1	0.6	12.7
2/1	602	602	-	-	-	1.0	0.7	-	1.8	10.7	9.8	0.7	10.6
3/1	117	117	-	-	-	1.1	0.3	-	1.5	44.9	2.9	0.3	3.2
4/1	106	106	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	586	586	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 Stream: 1 PRC for Signalled Lanes (%): 3.1 C1 Stream: 2 PRC for Signalled Lanes (%): 49.9 PRC Over All Lanes (%): 3.1 Total Delay for Signalled Lanes (pcuHr): 12.03 Total Delay for Signalled Lanes (pcuHr): 6.13 Total Delay Over All Lanes(pcuHr): 18.17 Cycle Time (s): 194 Cycle Time (s): 194													

